सत्यमेव जयते

Final Report

Based on Survey conducted for

Collection of Farm Activities Data and other related studies (2018-19)

In context with
Gross Value Addition from crop sector in Maharashtra for compilation of Gross State Domestic Product and Gross District Domestic Product

Volume I

Directorate of Economics & Statistics,
Planning Department, Government of Maharashtra.

Outsourced through

AFC India Ltd.(formerly Agriculture Finance Corporation Ltd.), Mumbai.

(Under 13th FC Grant)

Final Report

On

Collection of Farm Activities Data and Other related studies

Based on Survey conducted in line with 'Cost of Cultivation Studies' for District wise Major Crops in context with Gross Value Addition from Crop Sector in Maharashtra for compilation of Gross State Domestic Product and Gross District Domestic Product.

Volume I

Directorate of Economics and Statistics, Government of Maharashtra

Preface

The Directorate of Economics & Statistics (DES) is a principal statistical organization of the State Government working under Planning Department. The most important activity of DES is compilation of State and District Income estimates for which data of various sectors of economy is required. Agriculture & allied activities is one of the major sector of economy having major impact on the other sectors of the economy. The 'Crop' sub-sector has a prominent share in the Agriculture & allied sector.

As per the methodology and guidance from National Statistical Office (NSO), GoI; the 'Production Approach' is used for estimation of crop sector. For estimation of Gross Value Added (GVA) from the crop sector at State level, crop wise Gross Value of Output (GVO) is compiled using area, production and prices available from administrative records, while Inputs are estimated combined for these crops. Some of the inputs are estimated based on the 'Cost of Cultivation Studies' (CCS) conducted by Ministry of Agriculture and Farmer's Welfare, GoI through various agriculture universities of the states. Results of these studies are used at State level however due to small sample size and representation they are not used at district level. The un-availability of the CCS results for all crops at State level and for major crops at district level is a major data gap which needs to be bridged for improvements of the District Income estimates. This survey and other related studies is an attempt to overcome this data gap.

As per the recommendations of 13th Finance Commission and guidelines from GoI for 'Improvement in the State and District Statistical System', this project was undertaken. Additional Director Dr.J.V.Chaudhari (former Joint Director) initiated the project under the guidance of Shri.P.D.Sohale (ex. Director). I would like to place on record the zeal and passion of Shri.Pushkar Bhagoorkar, Joint Director, National Income (NI) and his team for completion of the study. I would like to appreciate the efforts and hard work of Mrs.Nasira Azim Shaikh who single handedly checked the data, its validity, tabulation and analysis and contributed a lot for the report under the able and encouraging guidance of Shri.Navendu K.Firake, Deputy Director (NI). Due to Covid-19 pandemic situation, the project was bit delayed however in spite of all the difficulties completed successfully.

I am very much thankful to Officers of the National Statistical Office, GoI for their guidance, Dr.D.B.Yadav, Head of the Department of Agriculture Economics, Mahatma Phule Agriculture University & his team Dr.Kumbhar, Dr.Gawali and Dr.Nirgude for their support and expert advice for the project. The project was awarded to M/s.AFC India Ltd and they have completed the job under the supervision of Dr.M.C.Pandey, Assistant General Manager and Shri.D.V.Joglekar, Statistician. I am also thankful to the respondent farmers, the field officers of Agriculture department and the officials of DES for their co-operation in successful completion of the field work.

I hope this report would be useful to the policy makers, planners and researchers in this field. Comments and suggestions for improvement of this report are welcome.

Mumbai.
Date : 29th June, 2021

(R.R.Shinge)
Director,
Directorate of Economics & Statistics,
Government of Maharashtra.

Foreword

The GSDP and GDDP estimates are compiled by Directorate of Economics and Statistics functioning under the Planning Department. Statistical compilations are normally done using data available from the records of Administrative Departments but in case of data unavailability Field Surveys are undertaken by Directorate of Economics & Statistics. The overall growth of State Economy is captured from data of several sectors amongst which "Agriculture & Allied Activities" is distinct by its significance although its contribution is comparatively less in GSDP and GDDP. However, the direct and indirect impact of "Agriculture & Allied Activities" on other sectors has always been important for sustainable growth of State Economy.

The availability of quality data for compilation of GSDP and GDDP estimates by Directorate of Economics & Statistics requires systemic improvements and thus using funds made available through 13th Finance Commission; a study entitled "Collection of Farm Activities Data" was undertaken by Directorate of Economics and Statistics to remove data gaps for better estimation of growth relating to the Crop Sector under "Agriculture & Allied Activities". Under the able leadership of Shri.R.R.Shinge, Director, DES along with the commendable work of the team led by Shri.P.H.Bhagoorkar, Joint Director, DES has resulted to the publication of "Collection of Farm Activities Data". Shri. Eknath Dawale, IAS, Secretary Agriculture Department also provided his valuable insights while finalizing the report prepared by "AFC India Ltd." an agency outsourced by the Directorate of Economics and Statistics. Senior Officers from National Statistical Office of MOSPI, GoI and team of experts under Dr.D.B.Yadav, HoD, Agriculture Economics Division, Mahatma Phule Krishi Vidyapeeth, Rahuri have extended full co-operation and provided valuable guidance for publication of "Collection of Farm Activities Data" by Directorate of Economics and Statistics.

The 'Collection of Farm Activities Data' covers Districtwise Major Crops and provides insightful Statistical Analysis of Value of Output, Input Costs including Domestic Labour and Family Labour etc. based on the Sample Data and highlights important Key Findings about the Crop Sector. The reports are in Three Volumes, the First Volume focuses mainly on the State Level Results, while the Second Volume gives District Wise Crop Wise information and the Third Volume covers thematic studies such as on Organic farming, Contractual Farming, Backyard Farming, Fodder & Grass etc. I am sure that besides the Agriculture, Marketing and other Departments of Government of Maharashtra, many Students and Researches in the Agricultural Universities as well as other stakeholders involved in development of Crop Sector will find "Collection of Farm Activities Data" report to be very useful and reader friendly publication for reference with insightful outlook regarding sustainable development of "Agriculture & Allied Activities" in Maharashtra.

Mumbai
Date 29th June, 2021

(Debashish Chakraborty)
Additional Chief Secretary (Planning)
Government of Maharashtra,
Mantralaya, Mumbai.

MESSAGE

The estimates of economic parameters like Gross State Domestic Product (GSDP), Gross District Domestic Product (GDDP) and Per Capita Income are quite important in policy decision for the state. But it requires a very huge sample to be screened with a intense precision. The M/s.AFC India Ltd. (formerly Agriculture Finance Corporation Ltd.) appointed by Directorate of Economics and Statistics (DES), Maharashtra for the Survey has made the intensive task very professionally and has surveyed the 34 districts (except Mumbai & Mumbai Suburban) of Maharashtra State.

The collected data and district wise estimates ensure the milestone as "Improvement of data in respect of farm activities" besides fulfilling the enhanced quality data and strengthening the State & District Statistical System. The data reported will be a great help to students, academicians, researchers and policy makers in formulating future research and relevant policies for agricultural sector.

We congratulate the Directorate of Economics & Statistics, Government of Maharashtra for completion of the survey and the report through M/s.AFC India Ltd. (formerly Agriculture Finance Corporation Ltd.) Also, congratulation to team Shri. R.R.Shinge, Director, Shri.P. H. Bhagoorkar, Joint Director (NI) & Shri. N. K. Firake, Deputy Director (NI), DES, Mumbai for successful completion of the task.

Rahuri
Date : 29th June, 2021

(Dr. D. B. Yadav),
Head, Department of Agricultural Economics,
Mahatma Phule Krishi Vidyapeeth, Rahuri,
Rahuri - 413 722, District: Ahmednagar.

ACKNOWLEDGMENT

'Conducting survey for Collection of Farm Activities Data and other related studies' project was entrusted to AFC India Ltd., by the Directorate of Economics and Statistics (DES). The main objective was to enhance the quality of data, through this objective to strengthen State & District Statistical System in the State wherein "Improvement of data in respect of farm activities" is one of the milestones of these studies.

We would like to place on record our thanks to **Shri. R.R.Shinge, Director** DES, Maharashtra for giving us opportunity to work under this project. Also, we would like to place special thanks to **Shri. P.H. Bhagoorkar, Joint Director (NI) & Shri. N.K.Firake, Deputy Director** (NI) DES, Maharashtra for entrusting and extending their support, co-operation and valuable suggestions during the study. We also thank all District Level Statistical Officers, Districts Superintendent of Agriculture Officers (D.S.A.O) for helping in collection of secondary data during the field work.

We are extremely thankful to the Data Analysis officials & support team of DES, Mumbai Head Office, who helped in correcting and analyzing data part of the work implemented under this study. The study team would like to place special recognitions to all the departments, Officials of Agricultural Universities for sparing their valuable time to provide necessary information, sharing their experience and providing feedback. The co-operation received from the respondent farmers is also deeply acknowledged.

DR. M. C. PANDEY
Assistant General Manager,
AFC India Ltd., Mumbai.

Abbreviations

AD	Agriculture Department
AFC	AFC India Ltd. (formerly Agricultural Finance Corporation Limited)
Av.	Average
CCA	Cultivable Command Area
CEO	Chief Executive Officer
DES	Directorate of Economics and Statistics
DSAO	District Superintending Agricultural Officer
FGD	Focused Group Discussion
FY	Financial Year
GDP	Gross Domestic Product
GoM/GOM	Government of Maharashtra
GP	Gram Panchayat
GR	Government Resolution
GVA	Gross Value Added
Ha/ha	Hectare
HP	Horse Power
ICAR	Indian Council of Agricultural Research
L	Liter
M & E	Monitoring & Evaluation
MOU	Memorandum of Understanding
MPKV	Mahatma Phule Krishi Vidyapeeth, Rahuri
MSP	Minimum Support Prices
MT	Metric Tonnes
Qtls/qtls	Quintals /quintals
NA	Not Available
NGO	Non-Governmental Organisation
No.	Number
OBC	Other Backward Classes
PDAU	Panjabrao Deshmukh Agricultural University, Akola
₹	Rupee
SC	Scheduled Caste
ST	Scheduled Tribes

INDEX

Chapter No	Title	Page No
	Executive Summary	1
	Key Findings from the study and Way forward	9
1	**Introduction and Background**	
1.1	Introduction	15
1.2	Background	16
1.3	Method of Computing Cost of Cultivation	18
1.4	Tendering and Assignment of Study	18
2	**Approach and Methodology**	
2.1	Genesis	19
2.2	Approach	20
2.3	Methodology	20
2.3.1	Sampling design	21
2.3.2	Geographical Coverage	22
2.3.3	Operational methodology	23
2.4	Item wise Estimation of Costs	24
2.5	Reports	24
2.6	A note on precision of Estimates	33
3	**Findings of The Study**	
3.1	Findings of the Study	35
3.2	Report Coverage	35
3.3	Salient features and observations from the survey	36
3.4	Charts and Graphs	37
	Sections	
Section A	**Crop Profiles of Multi-seasonal Crops**	**43**
1	**Cereals** Bajra	44
2	Maize	46
3	Paddy	48
4	Jowar	50
5	**Oilseeds** Groundnut	52
6	**Vegetables** Beans	54
7	Cauliflower	56

8		Capsicum	58
9		Brinjal	60
10		Cucumber	62
11		Pumpkin	64
12		Bitter Gourd	66
13		Pointed Gourd	68
14		Sponge Gourd	70
Section B	**Crop Profiles of Seasonal Crops**		**73**
	Kharif Crops		**75**
1	**Cereals**	Bajra	76
2		Maize	78
3		Paddy	80
4		Jowar	82
5		Ragi	84
6	**Pulses**	Tur	86
7		Moong	88
8		Udid	90
9	**Oilseeds**	Groundnut	92
10		Soyabean	94
11	**Fibre**	Cotton	96
12	**Condiments & Spices**	Ginger	98
13		Turmeric	100
14		Red Chili	102
15		Coriander Seed	104
16		Ajwain	106
17	**Vegetables**	Beans	108
18		Cabbage	110
19		Cauliflower	112
20		Capsicum	114
21		Brinjal	116
22		Okra	118
23		Onion	120
24		Ivy Gourd	122
25		Potato	124
26		Sweet Potato	126

27		Pumpkin	128
28		Tomato	130
29		Bitter Gourd	132
30		Bottle Gourd	134
31		Pointed Gourd	136
32		Ridge Gourd	138
33		Sponge Gourd	140
34		Peas	142
35		Green Chili	144
36		Coriander	146
37		Fenugreek	148
38		Leafy Vegetables (Spinach)	150
39		Other Vegetables (Clusterbean)	152
	Rabi Crops		**155**
40	**Cereals**	Maize	156
41		Jowar	158
42		Wheat	160
43	**Pulses**	Gram	162
44		Horse gram (Kulith)	164
45	**Condiments & Spices**	Garlic	166
46	**Vegetables**	Beans	168
47		Cauliflower	170
48		Capsicum	172
49		Brinjal	174
50		Cucumber	176
51		Pumpkin	178
52		Bitter Gourd	180
53		Pointed Gourd	182
54		Sponge Gourd	184
55		Beetroot	186
56		Carrot	188
57		Radish	190
	Summer crops		193
58	**Cereals**	Bajra	194
59		Maize	196

60		Paddy	198
61	**Oilseeds**	Groundnut	200
62	**Fruits**	Watermelon	202
63		Muskmelon	204
64	**Vegetables**	Cucumber	206
	Perennial Crops		209
65	**Sugar**	Sugarcane	210
66	**Fruits**	Banana	212
67		Limes	214
68		Pomegranate	216
69		Mandarin	218
70		Grapes	220
71		Mango	222
72		Sapota	224
73		Sweet Orange	226
74		Papaya	228
75		Guava	230
76		Custard Apple	232
77		Fig	234
78		Ber	236
79		Strawberry	238
80		Other Fruits (Jackfruit)	240
81	**Plantation Crops**	Arecanut	242
82		Cashewnut	244
83		Coconut	246
Section C	**Cost of Cultivation (CCS) Tables**		**249**
	Kharif Crops		
Table.K1	**Cereals**	Bajra	251
Table.K2		Maize	252
Table.K3		Paddy	253
Table.K4		Jowar	254
Table.K5		Ragi	255
Table.K6	**Pulses**	Tur	256
Table.K7		Moong	257
Table.K8		Udid	258

Table.K9	**Oilseeds**	Groundnut	259
Table.K10		Soyabean	260
Table.K11	**Fibre**	Cotton	261
Table.K12	**Condiments & Spices**	Ginger	262
Table.K13		Turmeric	263
Table.K14		Red Chili	264
Table.K15		Coriander Seed	265
Table.K16		Ajwain	266
Table.K17	**Vegetables**	Beans	267
Table.K18		Cabbage	268
Table.K19		Cauliflower	269
Table.K20		Capsicum	270
Table.K21		Brinjal	271
Table.K22		Okra	272
Table.K23		Onion	273
Table.K24		Ivy Gourd	274
Table.K25		Potato	275
Table.K26		Sweet Potato	276
Table.K27		Pumpkin	277
Table.K28		Tomato	278
Table.K29		Bitter Gourd	279
Table.K30		Bottle Gourd	280
Table.K31		Pointed Gourd	281
Table.K32		Ridge Gourd	282
Table.K33		Sponge Gourd	283
Table.K34		Peas	284
Table.K35		Green Chili	285
Table.K36		Coriander	286
Table.K37		Fenugreek	287
Table.K38		Leafy Vegetables (Spinach)	288
Table.K39		Other Vegetables (Clusterbean)	289
	Rabi Crops		**291**
Table.R1	**Cereals**	Maize	293
Table.R2		Jowar	294
Table.R3		Wheat	295

Table.R4	**Pulses**	Gram	296
Table.R5		Horse gram (Kulith)	297
Table.R6	**Condiments & Spices**	Garlic	298
Table.R7	**Vegetables**	Beans	299
Table.R8		Cauliflower	300
Table.R9		Capsicum	301
Table.R10		Brinjal	302
Table.R11		Cucumber	303
Table.R12		Pumpkin	304
Table.R13		Bitter Gourd	305
Table.R14		Pointed Gourd	306
Table.R15		Sponge Gourd	307
Table.R16		Beetroot	308
Table.R17		Carrot	309
Table.R18		Radish	310
	Summer crops		**311**
Table.S1	**Cereals**	Bajra	313
Table.S2		Maize	314
Table.S3		Paddy	315
Table.S4	**Oilseeds**	Groundnut	316
Table.S5	**Fruits**	Watermelon	317
Table.S6		Muskmelon	318
Table.S7	**Vegetables**	Cucumber	319
	Perennial Crops		**321**
Table.P1	**Sugar**	Sugarcane	323
Table.P2	**Fruits**	Banana	324
Table.P3		Limes	325
Table.P4		Pomegranate	326
Table.P5		Mandarin	327
Table.P6		Grapes	328
Table.P7		Mango	329
Table.P8		Sapota	330
Table.P9		Sweet Orange	331
Table.P10		Papaya	332
Table.P11		Guava	333

Table.P12		Custard Apple	334
Table.P13		Fig	335
Table.P14		Ber	336
Table.P15		Strawberry	337
Table.P16		Other Fruits (Jackfruit)	338
Table.P17	**Plantation Crops**	Arecanut	339
Table.P18		Cashewnut	340
Table.P19		Coconut	341
Section D	**Cost & Returns Analysis of distinct crops**		**343**
1	**Cereals**	Bajra	344
2		Maize	346
3		Paddy	348
4		Jowar	350
5		Ragi	352
6		Wheat	354
7	**Pulses**	Tur	356
8		Moong	358
9		Udid	360
10		Gram	362
11		Horse gram (Kulith)	364
12	**Oilseeds**	Groundnut	366
13		Soyabean	368
14	**Fibre**	Cotton	370
15	**Sugar**	Sugarcane	372
16	**Condiments & Spices**	Ginger	374
17		Turmeric	376
18		Red Chili	378
19		Coriander Seed	380
20		Ajwain	382
21		Garlic	384
22	**Fruits**	Watermelon	386
23		Muskmelon	388
24	**Fruits**	Banana	390
25		Limes	392
26		Pomegranate	394

27		Mandarin	396
28		Grapes	398
29		Mango	400
30		Sapota	402
31		Sweet Orange	404
32		Papaya	406
33		Guava	408
34		Custard Apple	410
35		Fig	412
36		Ber	414
37		Strawberry	416
38		Other Fruits (Jackfruit)	418
39	**Vegetables**	Beans	420
40		Cabbage	422
41		Cauliflower	424
42		Capsicum	426
43		Brinjal	428
44		Okra	430
45		Onion	432
46		Ivy Gourd	434
47		Potato	436
48		Sweet Potato	438
49		Pumpkin	440
50		Tomato	442
51		Bitter Gourd	444
52		Bottle Gourd	446
53		Pointed Gourd	448
54		Ridge Gourd	450
55		Sponge Gourd	452
56		Peas	454
57		Green Chili	456
58		Coriander	458
59		Fenugreek	460
60		Leafy Vegetables (Spinach)	462
61		Other Vegetables (Clusterbean)	464

62		Cucumber	466
63		Beetroot	468
64		Carrot	470
65		Radish	472
66	**Plantation Crops**	Arecanut	474
67		Cashewnut	476
68		Coconut	478
Section E	**Crop wise Total Value of Output and Inputs**		**481**
1	Kharif Crops		483
2	Rabi Crops		484
3	Summer Crops		484
4	Perennial Crops		485
Section F	**Questionnaire used for the Survey**		**487**
Section G	**References**		**491**

LIST OF TABLES, GRAPHS AND CHARTS

Number	Title	Page No
Table II.1	List of District wise Crops Selected	25
Table II.2	Agro climatic zone wise coverage	29
Table II.3	Crop wise District wise Coverage of No. of Farmers	30
Table II.4	Item wise Method of Estimation of Cost of Cultivation	32
Table II.5	A straddle indicating the confidence level and margin of error	33
Table II.6	Crop wise District wise categorization	34
Graph III. 1	Cost composition of Input Costs for Turmeric	38
Graph III. 2	Cost composition of Input Costs for Green Chili	38
Graph III. 3	Cost composition of Input Costs for Tomato	39
Graph III. 4	Cost composition of Input Costs for Grapes	39
Graph III. 5	Cost composition of Input Costs for Coconut	40
Graph III. 6	Productivity of Cereals	41
Graph III. 7	Productivity of Pulses	41
Graph III. 8	Price Realisation Cereals	41
Graph III. 9	Price Realisation Pulses	41

Executive Summary

- The study covered 34 districts of Maharashtra State out of 36 districts except Mumbai City and Mumbai Suburban districts. From each district, crops having highest gross value of output (all crops up to 95% of the gross value of output of crops in the district) were selected for study.

- Three stage sampling method was used for the selection of farm households for generating the cost estimates for the selected crops. In the first stage two blocks from each district were selected; in the second stage two villages from each selected block were selected; and in the third stage five farm households from each selected village were selected, thus a sample of 20 farmers was selected for each selected crop in every district.

- The total sample comprised of 7,840 farmers for Kharif season, 2,820 farmers for Rabi, 420 farmers for Summer and 2,520 farmers for Perennial crops, thus total number of farmers selected for the study was 13,600. Overall 68 distinct crops were selected for the study, of which 13 crops were in two seasons and 1 crop was in three seasons. Thus the total crops covered were 83 and 680 crop-district combinations were surveyed.

- The data was collected for the reference year 2018-19 using computer-assisted personal interview (CAPI) method. Various cost concepts used in estimating cost of cultivation/ production of crops were discussed with officials of Mahatma Phule Krishi Vidyapeeth.

- For analysis of data from this survey, the norm for classification of land holdings is used as small holdings less than 1 Ha, Medium holding 1 Ha. to 2 Ha. and Large holding more than 2 Ha and not as per the standard classification of land holdings.

- During Kharif season, Bajra was one of the major crops grown in 20 districts of the State except Konkan Region. The per hectare cost of cultivation (Cost C) of Bajra crop observed to the tune of ₹41,315.55, ₹36,682.26 and ₹33,675.56 for small, medium and large size of land holding respectively. Per quintal cost of production of Bajra crop were ₹2,616.29, ₹2,133.65 and ₹1,857.27 for small, medium and large size of land holding respectively. The overall per hectare cost of cultivation of Bajra Crop was ₹35,378.27 while overall per quintal cost of production was ₹ 2,009.71. However, per hectare gross return of Bajra Crop was positive at Cost A and B while it was negative at Cost C.

- Jowar was another important crop grown in Kharif Season in different districts. The per hectare cost of cultivation (Cost C) of Jowar crop were estimated to be of ₹42,676.16, ₹44,482.21 and ₹45,585.80 for small, medium and large size of land holding respectively. Per quintal cost of production of Jowar crop was₹3,058.96, ₹2,361.08 and ₹1,847.53 for small, medium and large size of land holding respectively. The overall per hectare cost of cultivation of Jowar Crop was ₹44,929.11, while overall per quintal cost of production was ₹ 2,075.08. Per hectare gross value of output of ₹54,535.95 has shown positive returns over all the Costs (Cost A, Cost B and Cost C).

- The overall Cost C i.e. per hectare cost of cultivation for Maize was observed to be ₹60,050.42. Correspondingly the overall per hectare gross return for Maize crop was computed as ₹65,390.11. Per quintal cost of production was estimated to ₹1,356.32.

- The per hectare cost of cultivation of Paddy i.e., Cost C was observed to be ₹66,483.18, ₹58,973.24 and ₹51,631.89 for small, medium and large farmer respectively while overall cost of cultivation was computed to ₹57,476.22. The overall per quintal cost of production was observed as ₹1,647.54.

- Amongst pulses, Tur is an important Kharif pulse crop. The overall per hectare cost of cultivation of this crop was observed as ₹55,855.60, while gross value of output per hectare was estimated to ₹84,061.25. Per quintal cost of production was computed as ₹3,144.89.

- As regards oilseed crops Soyabean and Groundnut has been grown during kharif season in various districts of the State. The overall per hectare cost of cultivation (Cost C) for Soyabean and Groundnut was observed ₹51,194.17 and ₹80,526.23 respectively. While per hectare gross value of output was estimated to ₹68,284.15 and ₹93,739.41 from Soyabean and Groundnut crops respectively. Per quintal cost of production of Soyabean and Groundnut was computed to ₹ 2,540.93 and ₹3,710.15 respectively.

- Cotton has been grown as an important cash crop in Maharashtra. The overall cost of cultivation Cost C, per hectare of cotton was observed ₹65,424.12 while per hectare gross value of output realized was ₹88,290.97. Per quintal cost of cultivation of cotton was estimated as ₹3,534.95.

- Amongst vegetables, Onion and Tomato crops were important cash crops grown in Maharashtra. Per hectare the overall cost of cultivation i.e., Cost C has been computed for Onion as ₹96,310.09 while per hectare gross value of output realized was estimated as ₹91,480.96, showing negative return during the year under study. Per quintal cost of production of Onion crop was observed as ₹529.03. Per hectare the overall cost of cultivation of Tomato crop was observed as ₹2,02,932.59 against per hectare gross value of output realised ₹2,80,089.34. Per quintal cost of cultivation of Tomato crop was estimated to ₹756.47.

- Wheat, Jowar and Maize are major rabi cereal crops grown in the state. Per hectare cost of cultivation (Cost C) for Wheat, Jowar and Maize was observed to be ₹44,025.30, ₹42,033.26, and ₹46,019.18 respectively. While per hectare gross value of output realised of the produce of Wheat, Jowar and Maize was estimated to be ₹64,789.21, ₹61300.75 and ₹62,407.00 respectively. Per quintal cost of production was observed to be ₹1,471.27, ₹1,968.39 and ₹1,117.34 for Wheat, Jowar and Maize crops respectively.

- Gram is an important rabi pulse crop grown in the State. The cost of cultivation per hectare for Gram was observed to be ₹54,170.11 against per hectare gross value of output realised ₹68,085.16. Per quintal cost of production of Gram crop was computed to ₹3,470.57.

- Per hectare cost of cultivation of Garlic was estimated as ₹1,55,586.79 against per hectare gross value of output ₹ 3,46,902. Per quintal cost of cultivation was computed to ₹1,561.60.

- Bajra, Maize and Paddy were the major cereal crops grown during summer season. The cost of cultivation of Bajra, Maize and Paddy was estimated to be of ₹40,752.66, ₹51,746.61 and ₹ 80,087.78 per hectare respectively. Per quintal cost of production of Bajra, Maize and Paddy was observed to be ₹1,250.23, ₹1,196.95 and ₹2,388.70 respectively.

- Groundnut is the main oilseed crop grown in summer. The Cost of cultivation of Groundnut was observed to be ₹ 81,340.44 per hectare while per hectare gross value of output estimated to ₹1,17,155.63. Per quintal cost of production was computed to ₹3,135.89.

- Sugarcane and Banana are the major perennial cash crops grown. The cost of cultivation i.e. Cost C for Sugarcane and Banana crops was estimated at ₹1,46,751.49 and ₹2,46,011.88 respectively. While per hectare gross value of output realized were found to be ₹2,18,381.78 and ₹4,23,450.49 for Sugarcane and Banana crops respectively. Cost of production of Sugarcane was observed to be ₹1,507.50 per MT while cost of production of Banana crop was computed at ₹508.08 per quintal.

- Grape and Pomegranate are major cash fruit crops of Maharashtra. The cost of cultivation of Grape per hectare was estimated at ₹5,41,305.19 against per hectare gross value of output realised ₹10,14,821.41. Per quintal cost of production of Grape was observed as ₹2,029.78. The cost of cultivation of Pomegranate per hectare was computed at ₹3,15,742.95 against gross value of output realised was estimated at ₹7,15,490.60. Per quintal cost of production was observed as ₹1,280.39.

- Sweet Orange (Santra) and Mandarin (Mosambi) were the major perennial cash citrus fruit crops grown mainly in Vidarbha and Marathwada Region. The cost of cultivation per hectare was ₹1,49,319.33 and ₹1,34,990.15 against the gross value of output realised ₹3,27,295.48 and ₹3,32,840.71 for Sweet Orange (Santra) and Mandarin (Mosambi) respectively. Per quintal cost of production of Sweet Orange and Mandarin was estimated at ₹964.14 and ₹828.07 respectively.

- The cost & returns analysis shows that for all classes of farm size (holdings) (small (<1 Ha.),Medium (1 Ha. to 2 Ha.), Large (> 2Ha.)], most of the crops fetched overall good returns. For the large holdings, the returns were comparatively better for almost all the crops while for medium and small holdings, such number of crops giving comparatively better returns were lesser. This analysis of cost and returns is indicative and based on the survey results and depends on the samples selected.

- The cost & returns analysis shows that for all classes of farm size (holdings), most of the crops were giving good returns except Jowar, Onion, Bottle gourd and Pointed gourd.

- The crops having comparatively better returns in the small holdings were observed as Groundnut, Horse gram, Red chili, Ajwain, Garlic, Cucumber, Custard Apple, Jackfruit, Cauliflower, Onion, Ivy gourd, Sweet Potato and Ridge gourd.

- The crops having comparatively better returns in the medium holdings were observed as Sugarcane, Tur, Udid, Ginger, Turmeric, Coriander seed, Muskmelon, Fig, Mango, Papaya, Sweet Orange, Capsicum, Radish and Ivy gourd.

- The crops giving comparatively better returns in the large holdings were observed as ‘ Bajra, Gram, Coconut, Maize, Paddy, Jowar, Ragi, Wheat, Moong, Soyabean, Cotton, Arecanut, Cashewnut, Watermelon, Banana, Ber, Grapes, Guava, Lime, Mandarin, Pomegranate, Sapota, Strawberry, Beans, Bitter gourd, Cabbage, Brinjal, Beetroot, Carrot, Potato, Sweet Potato,

Pumpkin, Tomato, Bottle gourd, Pointed Gourd, Sponge gourd, Peas, Green Chili, Coriander, Fenugreek, Leafy Vegetables (Spinach) and Other Vegetables (Cluster beans).

- Incidentally, the returns were found to be almost same for large and small holdings in case of Potato, Muskmelon and Ber.

- The item wise inputs under consideration for valuation of Gross Value Added are available from this survey for various crops at district level. These inputs are per hectare which can be applied to the area of that particular crop in the particular district and total input cost can be estimated. The districtwise input costs thus arrived can be applied to respective districts whereas for remaining districts, 'Sum of all input costs divided by sum of the area under that crop' ratio can be applied. Thus, crop wise input cost at State level can be estimated. The ratios thus arrived for 2018-19 (reference period used in the survey) can be applied to the area under crops for subsequent years.

***

संक्षिप्त गोषवारा

- महाराष्ट्रातील ३६ जिल्ह्यांपैकी मुंबई शहर व मुंबई उपनगर हे दोन जिल्हे वगळता उर्वरीत ३४ जिल्ह्यांमधे हा अभ्यास करण्यात आला. प्रत्येक जिल्ह्यातील सर्वाधिक स्थूल उत्पादन मूल्य असलेल्या (जिल्ह्यातील पिकांच्या एकूण स्थूल उत्पादन मूल्याच्या ९५ टक्के पर्यंत) पिकांचा जिल्ह्यातील प्रमुख पिके म्हणून अभ्यासात समावेश करण्यात आला.
- निवड केलेल्या पिकांचा पीक खर्च काढण्यासाठी शेतकरी कुटुंबांच्या निवडीसाठी त्रिस्तरीय नमुना निवड पद्धत अवलंबिण्यात आली. निवड केलेल्या पिकाखालील क्षेत्राच्या आधारावर प्रत्येक जिल्ह्यातील २ तालुक्यांची निवड प्रथम स्तरावर केली, निवड केलेल्या तालुक्यातून प्रत्येकी २ गावांची निवड दुसऱ्या स्तरावर केली. प्रत्येक गावातील पाच शेतकरी कुटुंबांची निवड तिसऱ्या स्तरावर केली. अशा रीतीने प्रत्येक जिल्ह्यात निवड केलेल्या प्रत्येक पिकाकरिता २० शेतकरी कुटुंबांची निवड केली.
- या पाहणीसाठी खरीप हंगामा करिता ७,८४० शेतकरी, रब्बी हंगामाकरिता २,८२० शेतकरी, उन्हाळी हंगामा करिता ४२० शेतकरी व बहुवार्षिक पिकांकरिता २,५२० शेतकरी अशी एकूण १३,६०० शेतकरी कुटुंबे (३४ जिल्हे प्रत्येक जिल्ह्यात सरासरी २० पिके व निवडलेल्या पिकासाठी जिल्ह्यातून २० शेतकरी) निवडण्यात आली. या पाहणीकरीता ६८ वेगवेगळी पिके निवडण्यात आली. त्यापैकी १३ पिके ही दोन हंगामात व १ पिक हे तीन हंगामात होते. याप्रकारे ८३ पिकांचा समावेश झाला व ६८० पीक x जिल्हा करीता पाहणी करण्यात आली.
- संदर्भ वर्ष २०१८-१९ करिता संगणक सहाय्यित वैयक्तिक मुलाखत पद्धतीने या कुटुंबांकडून माहिती गोळा करण्यात आली. पीक खर्च/लागवड खर्च अनुमानित करण्याकरिता उपयोगात आणलेल्या विविध खर्च संकल्पना महात्मा फुले कृषि विद्यापिठातील तज्ञांशी चर्चेच्या आधारे निश्चित केल्या.
- या पाहणीतील आकडेवारीचे विश्लेषण करतांना वहिती क्षेत्राच्या वर्गीकरणासाठी 'छोटे शेतकरी' एक हेक्टर पर्यंत क्षेत्र, 'मध्यम शेतकरी' १ ते २ हेक्टर क्षेत्र, 'मोठे शेतकरी' २ हेक्टर पेक्षा अधिक क्षेत्र असे निकष वापरण्यात आले असून ते वहिती क्षेत्राच्या वर्गीकरणासाठीच्या मानक निकषांपेक्षा थोडे वेगळे आहेत.
- बाजरी हे खरीप हंगामात कोकण विभाग वगळता राज्यातील २० जिल्ह्यात घेतले जाणारे महत्त्वाचे पीक आहे. या पिकाचा दर हेक्टरी उत्पादन खर्च (याला तांत्रिक भाषेत कॉस्ट सी (Cost C) असे म्हटले जाते) हा छोट्या, मध्यम व मोठ्या शेतकऱ्यांकरिता अनुक्रमे ₹ ४१,३१५.५५, ₹ ३६,६८२.२६ व ₹ ३३,६७५.५६ असा दिसून आला. तसेच बाजरी या पिकाकरिता छोट्या, मध्यम व मोठ्या शेतकऱ्यांचा प्रति क्विंटल उत्पादन खर्च अनुक्रमे ₹ २,६१६.२९, ₹ २,१३३.६५ व ₹ १,८५७.२७ एवढा दिसून आला. सरासरीने छोट्या, मध्यम व मोठ्या शेतकऱ्यांकरिता दर हेक्टरी उत्पादन खर्च ₹ ३५,३७८.२७ तर दर क्विंटल उत्पादन खर्च ₹ २,००९.७१ इतका दिसून आला. बाजरी पिकासाठी प्रति हेक्टर स्थूल परताव्यासाठी कॉस्ट ए व कॉस्ट बी विचारात घेतल्यास शेतकऱ्याला धन (+) परतावा मिळाला परंतु कॉस्ट सी विचारात घेतल्यास ऋण (-) परतावा मिळाला.

- ज्वारी हे अनेक जिल्ह्यात घेतले जाणारे खरीप हंगामातील एक अन्य महत्त्वाचे पीक आहे. ज्वारी करिता छोटया, मध्यम व मोठ्या शेतकऱ्यांकरिता दर हेक्टरी उत्पादन खर्च अनुक्रमे ₹ ४२,६७६.१६, ₹ ४४,४८२.२१ व ₹ ४५,५८५.८० इतका दिसून आला. तसेच प्रति क्विंटल उत्पादन खर्च हा छोट्या, मध्यम व मोठ्या शेतकऱ्यांकरिता अनुक्रमे ₹ ३,०५८.९६, ₹ २,३६१.०८ व ₹ १,८४७.५३ इतका दिसून आला. तर एकूण सरासरीने ज्वारीचा दर हेक्टरी उत्पादन खर्च ₹ ४४,९२९.११ तर प्रति क्विंटल उत्पादन खर्च ₹ २,०७५.०८ इनका दिसून आला. ज्वारीपासून मिळालेले एकूण उत्पन्न दर हेक्टरी ₹५४,५३५.९५ एवढे दिसून आले आणि कॉस्ट ए, कॉस्ट बी व कॉस्ट सी या उत्पादन खर्चाच्या तीनही पातळ्यांचा विचार करिता ज्वारी पासून शेतकऱ्यांना धन (+) परतावा मिळाला.
- मका या खरीप पिकाकरिता दर हेक्टरी एकूण उत्पादन खर्च कॉस्ट सी ₹ ६०,०५०.४२ तर दर हेक्टरी एकूण उत्पन्न ₹ ६५,३९०.११ एवढे मिळाले. मका या पिकासाठीचा प्रति क्विंटल चा उत्पादन खर्च ₹ १,३५६.३२ एवढा दिसून आला.
- भात या खरीप पिकासाठी छोट्या, मध्यम व मोठ्या शेतकऱ्यांचा दर हेक्टरी उत्पादन खर्च अनुक्रमे ₹ ६६,४८३.१८, ₹ ५८,९७३.२४ व ₹ ५१,६३१.८९ एवढा दिसून आला. भातासाठी दर हेक्टरी सरासरी उत्पादन खर्च ₹ ५७,४७६.२२ तर प्रति क्विंटल सरासरी उत्पादन खर्च ₹ १,६४७.७४ एवढा दिसून आला.
- कडधान्यांपैकी तूर हे खरीप हंगामातील एक महत्त्वाचे कडधान्य पीक आहे. तुरीकरिता दर हेक्टरी, एकूण उत्पादन खर्च ₹ ५५,८५५.६०, तर हेक्टरी एकूण उत्पन्न ₹ ८४,०६१.२५ एवढे दिसून आले. प्रति क्विंटल उत्पादन खर्च ₹ ३,१४४.८९ एवढा दिसून आला.
- सोयाबीन आणि भुईमूग ही तेलबिया पिके खरीप हंगामात राज्यातील अनेक जिल्ह्यात घेतली जातात. सोयाबीन व भुईमूग या पिकांकरिता दर हेक्टरी सरासरी उत्पादन खर्च (कॉस्ट सी) ₹ ५१,१९४.१७ व ₹ ८०,५२६.२३ एवढा दिसून आला तर दर हेक्टरी सरासरी उत्पन्न अनुक्रमे ₹ ६८,२८४.१५ व ₹ ९३,७३९.४१ एवढे दिसून आले. सोयाबीन व भुईमूग या पिकांचा प्रति किंटल उत्पादन खर्च अनुक्रमे ₹ २५४०.९३ व ₹ ३७१०.१५ एवढा दिसून आला.
- कापूस हे महाराष्ट्रातील महत्त्वाचे नगदी पीक आहे. या पिकासाठी एकूण दर हेक्टरी उत्पादन खर्च (कॉस्ट सी) ₹ ६५,४२४.१२ तर एकूण दर हेक्टरी उत्पन्न ₹ ८८,२९०.९७ एवढे दिसून आले. प्रति क्विंटल उत्पादन खर्च ₹ ३,५३४.९५ एवढा दिसून आला.
- भाज्यांमध्ये कांदा व टोमॅटो ही महाराष्ट्रात घेतली जाणारी महत्त्वाची नगदी पिके आहेत. कांदा या पिकाकरिता एकूण दर हेक्टरी उत्पादन खर्च (कॉस्ट सी) ₹ ९६,३१०.०९ तर एकूण दर हेक्टरी उत्पन्न ₹ ९१,४८०.९६ एवढे दिसून झाले म्हणजेच कांदा उत्पादकांना पाहणी अभ्यास घेतलेल्या वर्षी ऋण (-) परतावा मिळाला. कांदा पिकाचा प्रति किंटल उत्पादन खर्च ₹ ५२९.०३ एवढा दिसून आला. टोमॅटो या पिकासाठी दर हेक्टरी एकूण उत्पादन खर्च, ₹ २,०२,९३२. ५९ तर दर हेक्टरी एकूण उत्पन्न ₹ २,८०,०८९.३४ एवढे दिसून आले. टोमॅटो पिकाचा प्रति क्विंटल उत्पादन खर्च ₹ ७५६.४७ एवढा दिसून आला.

- गहू, ज्वारी व मका ही राज्यात रबी हंगामात पिकवली जाणारी महत्त्वाची तृणधान्ये आहेत. या पिकांचा दर हेक्टरी उत्पादन खर्च (कॉस्ट सी) अनुक्रमे ₹ ४४,०२५.३०, ₹ ४२,०३३.२६ व ₹ ४६,०१९.१८ इतका दिसून आला. तर या पिकांपासून मिळणारे एकूण उत्पन्न अनुक्रमे ₹ ६४,७८९.२१, ₹ ६१,३००.७५ व ₹ ६२,४०७ एवढे दिसून आले. तसेच रबी हंगामातील गहू, ज्वारी व मका या पिकांचा प्रति क्विंटल उत्पादन खर्च अनुक्रमे ₹ १,४७१.२७, ₹ १,९६८.३९ व ₹ १,११७.३४ एवढा दिसून आला.
- चना हे रबी हंगामातील राज्यातील महत्वाचे कडधान्य पीक आहे. या पीकासाठी दर हेक्टरी एकूण उत्पादन खर्च (कॉस्ट सी) ₹ ५४,१७०.११ तर दर हेक्टरी एकूण उत्पन्न ₹ ६८,०८५.१६ एवढे दिसून आले. चना या पिकाचा प्रति क्विंटल उत्पादन खर्च ₹ ३,४७०.५७ एवढा दिसून आला.
- लसूण या पिकाचा दर हेक्टरी एकूण उत्पादन खर्च, कॉस्ट सी, ₹ १,५५,५८६.७९ तर दर हेक्टरी एकूण उत्पन्न ₹ ३,४६,९०२.०० एवढे दिसून आले. लसूण या पिकाचा प्रति क्विंटल उत्पादन खर्च ₹ १,५६१.६० एवढा दिसून आला.
- उन्हाळी हंगामात राज्यात बाजरी, मका व भात या महत्वाच्या तृणधान्य पिकांची लागवड केली जाते. त्यांचा दर हेक्टरी एकूण उत्पादन खर्च (कॉस्ट सी) अनुक्रमे ₹ ४०,७५२.६६ , ₹ ५१,७४६.६१ व ₹ ८०,०८७.७८ एवढा दिसून आला तर प्रति क्विंटल उत्पादन खर्च अनुक्रमे ₹ १,२५०.२३, ₹ १,१९६.९५ , ₹ २,३८८.७० एवढा दिसून आला.
- उन्हाळी हंगामात घेतले जाणारे भुईमूग हे तेलबिया वर्गातील प्रमुख पीक असून त्याचा दर हेक्टरी एकूण उत्पादन खर्च (कॉस्ट सी) ₹ ८१,३४०.४४ तर दर हेक्टरी एकूण उत्पन्न ₹ १,१७,१५५.६३ एवढे दिसून आले. प्रति क्विंटल उत्पादन खर्च ₹ ३,१३५.८९ एवढा दिसून आला.
- ऊस आणि केळी ही राज्यातील महत्वाची बहुवार्षिक नगदी पिके असून त्यांचा दर हेक्टरी सरासरी उत्पादन खर्च (कॉस्ट सी) अनुक्रमे ₹ १,४६,७५१.४९ व ₹ २,४६,०११.८८ एवढा दिसून आला. तर या पिकांचे दर हेक्टरी उत्पन्न रु २,१८,३८१.७८ व ₹ ४,२३,४५०.४९ एवढे दिसून आले. ऊस या पिकाचा प्रतिटन उत्पादन खर्च ₹ १,५०७.५० तर केळ्यांचा प्रति क्विंटल उत्पादन खर्च ₹ ५०८.०८ एवढा दिसून आला.
- द्राक्षे व डाळिंबे ही राज्यात घेतली जाणारी प्रमुख नगदी फळ-पिके आहेत. द्राक्ष पिकाकरिता दर हेक्टरी, एकूण उत्पादन खर्च (कॉस्ट सी) ₹ ५,४१,३०५.१९ तर एकूण उत्पन्न ₹ १०,१४,८२१.४१ एवढे दिसून आले. द्राक्षांचा प्रति क्विंटल उत्पादन खर्च ₹ २,०२९.७८ एवढा दिसून आला. डाळींब या पिकाचा दर हेक्टरी उत्पादन खर्च, कॉस्ट सी ₹ ३,१५,७४२.९५ तर एकूण दर हेक्टरी उत्पन्न ₹ ७,१५,४९०.६० व प्रति क्विंटल उत्पादन खर्च ₹ १,२८०.३९ एवढा दिसून आला.
- संत्री व मोसंबी ही प्रमुख लिंबू वर्गीय बहुवार्षिक फळ-पिके विदर्भ व मराठवाडा या विभागात घेतली जातात. संत्री व मोसंबी या पीकांचा दर हेक्टरी उत्पादन खर्च (कॉस्ट सी) अनुक्रमे ₹ १,४९,३१९.३३ व ₹ १,३४,९९०.१५ तर दर हेक्टरी एकूण उत्पन्न ₹ ३,२७,२९५.४८ व ₹ ३,३२,८४०.७१ एवढे दिसून आले. तसेच संत्री व मोसंबी यांचा प्रति क्विंटल उत्पादन खर्च अनुक्रमे ₹ ९६४.१४ व ₹ ८२८.०७ एवढा दिसून आला.

- पिकांवरील खर्च व परतावा यांच्या विश्लेषणातून असे दिसून येते की तीनही प्रकारच्या भूधारक शेतकऱ्यांना [छोटे (<१ हेक्टर), मध्यम (१ते२ हेक्टर) व मोठे (>२ हेक्टर)] बहुतेक पिकांमधून एकंदरीत चांगला परतावा मिळाला. मोठ्या भूधारक शेतकऱ्यांना सर्वच पिकांमधून तुलनेने अधिक परतावा मिळाला तर छोट्या व मध्यम भूधारक शेतकऱ्यांना अधिक परतावा मिळणाऱ्या पिकांची संख्या कमी होती. खर्च व परतावा यांचे विश्लेषण हे दिशादर्शक असून ते सर्वेक्षणातील निवडलेल्या नमुना कुटुंबांनी दिलेल्या माहितीवरुन काढलेल्या निष्कर्षावर आधारित आहे.
- पिकांवरील खर्च व परतावा यांच्या विश्लेषणातून असे दिसून येते की, तीनही प्रकारच्या भूधारकांना ज्वारी, कांदा, दुधी भोपळा, आणि परवल ही पिके वगळता अन्य पिकांनी चांगला परतावा दिला.
- छोट्या भूधारकांना तुलनेने चांगला परतावा देणाऱ्या पिकांमध्ये भुईमूग, हुलगे, लाल मिरची, ओवा, लसूण, काकडी, सिताफळ, फणस,कॉलीफ्लॉवर, कांदा, तोंडली, रताळी व दोडके या पिकांचा समावेश असल्याचे दिसून आले.
- मध्यम भूधारकांना तुलनेने चांगला परतावा देणाऱ्या पिकांमध्ये ऊस, तूर,उडीद, आले, हळद, धने, खरबूज, अंजीर, आंबे, पपई, मोसंबी, ढोबळी मिरची, तोंडली व मुळा या पिकांचा समावेश असल्याचे दिसून आले.
- मोठ्या भूधारकांना तुलनेने चांगला परतावा देणाऱ्या पिकांमधे बाजरी, चना, नारळ, मका, भात, ज्वारी, रागी, गहू, मूग, सोयाबीन, कपास, सुपारी, काजू, कलिंगड, केळी, बोरे, दाक्ष, पेरू, लिंबू, संत्री, डाळिंब, चिकू, स्ट्रॉबेरी, घेवडा,कारली, कोबी, वांगी, बीट, गाजर, बटाटा, रताळी, लालभोपळा, टोमॅटो, दुधी भोपळा , परवल, घोसाळे, मटार, हिरवी मिरची, धणे, मेथी, पालक, आणि गवार ही पिके समाविष्ट असल्याचे दिसून आले.
- बटाटा, बोरे व खरबूज या पीकांकरिता छोट्या तसेच मोठ्या भूधारकांना मिळणारा परतावा जवळपास सारखा होता असे देखिल दिसून आले.
- जिल्हास्तरावर विविध पिकांची स्थूल मुल्य वृद्धी काढण्याकरीता संबंधित निविष्ठांवरील बाबवार खर्चाची माहिती या सर्वेक्षणातून उपलब्ध होते. या निविष्ठांचा खर्च हा प्रति हेक्टर काढण्यात आला असल्याने त्या त्या पिकांच्या त्या त्या जिल्ह्यातील एकूण क्षेत्राशी संबंध जोडून त्या पिकासाठी त्या जिल्ह्यासाठी निविष्ठांचा खर्च काढता येईल. अशा प्रकारे जिल्हानिहाय काढण्यात आलेल्या पिकांच्या निविष्ठांवरील खर्च संबंधित जिल्ह्यासाठी वापरता येईल तर उर्वरीत जिल्ह्यांसाठी त्या पिकांच्या निविष्ठांवरील एकूण खर्च व त्या पिकाखाली असणारे क्षेत्र यांचे गुणोत्तर यांचा वापर करुन निविष्ठा खर्च काढता येईल. २०१८-१९ या पाहणीच्या संदर्भ वर्षाकरिता अशारितीने काढण्यात आलेली गुणोत्तरे आगामी वर्षातील त्या त्या पिकांखालील क्षेत्राशी उपयोजित करता येतील.

***

Key Findings from the study and Way forward

- District wise variation in cost of cultivation of various crops in Maharashtra is observed to be significant, thus necessitating separate district wise estimation of inputs and output for estimating contribution of respective crops to district domestic product.

- The district wise requirement of inputs varies according to crops and principal head of cost incurred is also different for different crops. With a special emphasis on policy measures for major heads of costs, possibilities of reducing cost of crops under those heads can be explored. This will eventually lead to enhance income of farmers.

- Interviews with farm households during this survey revealed that various agricultural operations to include land preparation, sowing, application of granular fertilizers, plucking of green Chilis, harvesting of crops, milling of maize/jowar etc. are given on contract to different types of vendors/agencies, after suitable negotiations. Costs incurred on such 'contracts' were easily recalled and shared with enumerators. Hence 'contract' has been added as an additional cost head in cost sheet. Further it was appropriately bifurcated in to 'mechanical power' and 'hired labour' heads for analysis.

- Composition of hired labour to family labour presents a mixed picture and availability of labour influences the output of crop, hence promotion of use of mechanization or technology (viz. use of herbicides for controlling weeds in cotton crop etc.) can be explored to reduce labour cost, thereby enhancing income of farmers.

- Certain dilemmatic situations have been observed in the field e.g. per acre cost of soyabean in Marathwada region using harvester is in the range of ₹2,200-2,500 whereas if labour is employed for harvesting, then cost is around ₹4,000 and time is far more than using harvester. Similar situations could be observed in harvesting sugarcane and some other crops. Organized efforts to mobilize mechanization of harvesting have potential to enhance income of farmers.

- It appears that mechanization may lead to reduced employment opportunities for a section of labour class which can be mitigated by providing skills relating to maintenance and operations of equipments, processing at farm gate or primary processing of the farm produce.

- The composition of working capital contains 'interest on working capital' as one of the components. As per the discussions with MPKV, all the items in the cost sheet from 1 to 14 (essentially all paid out costs) are considered as working capital and interest is considered at a flat rate of 6 percent. In practice farmers generally borrow to the extent of requirements, where there is institutional finance say from commercial/cooperative banks, there is significant quantum of interest subvention by Government of Maharashtra in respect to regular repayment of loan. This can enhance the income of farmers.

- The cost of chemical fertilizers is the cost paid by farmers, net of subsidy by government, and generally the regulated price for respective fertilizers. However, there are several instances where cost paid by farmers is higher than the regulated price and it adversely affects income of farmers. A policy intervention to ensure supply at regulated price can improve farmer's income. This also holds good for some other inputs where price is regulated like seeds, some plant protection chemicals etc.

- The incidence of payment of insurance premium is negligible. This can have policy implication to devise crop insurance schemes and persuading farmers to pay insurance premium.

- The incidence of use of Rab material for preparation of farm land for crop cultivation was not reported by the farmers.

- Rental value of land is estimated as suggested by MPKV (1/6th of gross income from main produce & bye produce less land revenue taxes and other taxes paid). This is a notional cost, and can vary as per price realization of produce/bye produce. Instead, rental value as a fixed multiple of land revenue may be a better estimate of rental value.

- The survey was conducted for the main purpose of finding out the district wise input costs of crop production to calculate district wise crop wise gross value added (GVA).

- For base year revision of State & District Income estimates, such type of survey needs to be undertaken to update the crop wise district wise inputs. It can be undertaken once in five years or every year covering 20 per cent crops so that all crops can be covered in five years. The decision can be taken based on needs and available resources for the same. This survey was undertaken keeping in mind the proposed new base year 2017-18. The agency for conducting survey could not be finalised in time due to the non-response from the empanelled agencies, the tendering and two times retendering was required to be done for finalising agency which was done in June, 2018 and sub-sequently the data for the reference year 2018-19 was collected.

- For many parameters considered in this survey, the findings may need further probing in details. For this purpose, small surveys can be conducted using the available frame as it contains the contact details such as mobile numbers of the respondents.

- The data collected from this survey may be helpful in analysing various questions and areas such as Increasing income of farmers, Impact of reforms in Agriculture sector, Economics of labour intensive and capital intensive crops etc.

- The costs & returns analysis gives broad insight about which crops can fetch comparatively better returns in large (<2 Ha), medium (1 to 2 Ha.) and small (<1 Ha.) holdings. This can be mainly important and beneficial for the large number of farmers having small holdings in the State.

- Crops under Floriculture, Spices & Condiments, and Medicinal Plants etc. could not be covered in this survey. Though the production of these crops is less, may be it is possible that the value addition done by these crops is significant. Hence, for these crops separate surveys can be planned & conducted to quantify its contribution in GVA of Crop Sector.

- DES has also conducted some related studies in which it was attempted to find out the impact of adoption of various other farming patterns like Contract Farming, Backyard Farming and Organic Farming, primary processing of the crop produce for the value addition by farmer and Grass & Fodder crops which are generally not covered in the major crops, diesel consumption for agriculture. Separate report on these studies is presented in Volume III of this report.

- Since, such survey was undertaken for the first time, the results are not comparable with any previous results. One may compare these results with the results obtained from the CCS conducted by the Agriculture Universities in the State, but the comparison should be done keeping in mind that the method of survey is different for both.

- If in case, researchers want to study using the data collected through this Survey, they can get the basic data collected from this survey by contacting DES. Such data can be made available by suppressing the identification details with a condition that the analysis and research done should be shared with DES.

- DES requests to give feedback and comments on this study, so that further improvements can be made while conducting such type of surveys in future.

***

अभ्यासाचे मुख्य निष्कर्ष आणि पुढील दिशा

- महाराष्ट्रातील विविध पिकांच्या जिल्हावार उत्पादन खर्चात लक्षणीय फरक दिसून येतो. त्यामुळे स्थूल जिल्हा उत्पन्नात त्या त्या पिकांचे योगदान काढण्यासाठी स्वतंत्रपणे जिल्हा निहाय पीक खर्च व उत्पन्न यांचे अंदाज तयार करण्याची आवश्यकता आहे.
- पिकानुसार जिल्हानिहाय निविष्ठांचे प्रमाण बदलते तसेच वेगवेगळ्या पिकांसाठी एकूण निविष्ठांपैकी मुख्य निविष्ठा ही देखिल वेगवेगळी आहे. अशा मुख्य निविष्ठाबाबतच्या धोरणात्मक उपाययोजनांवर भर दिल्यास निविष्ठांवरील खर्च कमी करण्याच्या शक्यता पडताळून पाहता येतील, परिणामतः शेतकऱ्यांच्या उत्पन्नात भर पडू शकेल.
- सर्वेक्षित शेतकरी कुटुंबांच्या मुलाखती घेतांना असे दिसून आले की, शेती संबंधातील विविध कामे ज्यात जमीन मशागत, पेरणी, पिकांना दाणेदार खते देणे, हिरव्या मिरच्या तोडणे, पिकांची कापणी /मळणी करणे इ. कामे विविध संस्था किंवा सेवा पुरवठादार यांना वाटाघाटी करुन कंत्राट या स्वरुपात दिली जातात. अशा कंत्राटी कामांकरीताचा खर्च चटकन आठवून सहजपणे मुलाखत घेणाऱ्याला सांगण्यात आला. त्यामुळे खर्च पत्रकात कंत्राट असे एक शीर्ष समाविष्ट करण्यात आले. पुढील विश्लेषणात या शीर्षाचे विभाजन यांत्रिक शक्ती आणि मजूरी या शीर्षाखाली करण्यात आले.
- पीक उत्पादन खर्चात घरातील शेत मजुरी व बाहेरून घेतलेली शेत मजुरी यांचे प्रमाण याचे संमिश्र चित्र दिसून येते आणि मजुरांच्या उपलब्धतेवर पिकांची उत्पादकता अवलंबून असते. त्यामुळे यांत्रिकीकरण वा तंत्रज्ञानाला प्रोत्साहन देऊन (उदा. कापूस या पिकामधील तणवाढ नियंत्रणासाठी हर्बीसाईडसचा वापर) मजुरी खर्च कमी करण्याची शक्यता पडताळता येईल जेणेकरुन शेतकऱ्यांचे उत्पन्न वाढू शकेल.
- या अभ्यासात काही पेचात्मक परिस्थिती निदर्शनास आल्या. उदा. सोयाबीन या पिकाची हार्वेस्टर यंत्राने कापणी केल्यास मराठवाड्यातील शेतकऱ्याला एकरी साधारणपणे ₹ २,२०० ते ₹ २,५०० एवढा खर्च येतो परंतु शेतमजूर लावून कापणी केल्यास एकरी जवळपास ₹ ४,००० खर्च येतो. शिवाय हार्वेस्टरने कापणी करतांना लागणाऱ्या वेळेपेक्षा अधिक वेळ लागतो. अशीच परिस्थिती ऊस तोडणी व इतर काही पिकांच्या कापणी मध्येही दिसून येते. म्हणजेच सुगीच्या कामाकरिता यांत्रिकीकरणाचा वापर करण्याच्या दृष्टीने सुसंघटीत प्रयत्नांमध्ये शेतकऱ्यांच्या उत्पन्नात वाढीची क्षमता आहे.
- यांत्रिकीकरणामुळे मजुरांना मिळणाऱ्या रोजगार संधीमधे घट होईल असे दिसते, परंतु अशा मजुरांना योग्य यंत्रांची देखभाल दुरुस्ती, यंत्रचालक, शेतावरील उत्पादित मालाची प्राथमिक प्रक्रिया अशा कामांसाठी आवश्यक असलेले कौशल्य प्रशिक्षण दिल्यास त्यांचेकरिता रोजगार उपलब्ध होऊ शकेल.
- खेळत्या भांडवलाच्या घटकांमध्ये 'खेळत्या भांडवलावरील व्याज' हा एक घटक समाविष्ट आहे. महात्मा फुले कृषि विद्यापीठाशी झालेल्या चर्चेनुसार उत्पादन खर्चाच्या १ ते १४ या व्यय शीर्षाखालील सर्व खर्च हा खेळते भांडवल म्हणून धरला जातो व या खेळत्या भांडवलावर ६ टक्के थेट दराने (दर साल नव्हे) व्याज आकारले जाते. वास्तविक शेतकरी सामान्यतः त्याला आवश्यक तेवढयाच कर्जाची उचल करतो व हे कर्ज जर वाणिज्यिक/सहकारी बँका सारख्या संस्थांकडून घेतले असेल व त्याची विहित वेळेत परतफेड

केली असेल तर अशा कर्जावरील व्याजाचा मोठा हिस्सा महाराष्ट्र शासनामार्फत भरला जातो, ह्यामुळे शेतकऱ्यांच्या उत्पन्नात वाढ होऊ शकते.

- रासायनिक खतांची किंमत म्हणजे खतावरील अनुदानाची रक्कम वगळता शेतकऱ्याने दिलेली किंमत किंवा सामान्यतः अशा खतांच्या नियंत्रित किंमती होय. परंतु अनेक ठिकाणी असे निदर्शनास आले की, शेतकऱ्यांनी रासायनिक खतांसाठी नियंत्रित दरापेक्षा जास्त किंमत मोजली आहे व त्याचा विपरित परिणाम शेतकऱ्यांच्या उत्पन्नावर झाला आहे. नियंत्रित दरात रासायनिक खतांचा पुरवठा सुनिश्चित करण्यासाठी धोरणात्मक हस्तक्षेप केल्यास शेतकऱ्यांचे उत्पन्न वाढेल. नियंत्रित दरात उपलब्ध होणाऱ्या अन्य निविष्ठा जसे बियाणे, फवारणी औषधे इत्यादी करिताही असा धोरणात्मक हस्तक्षेप उपयुक्त ठरू शकतो.
- पीक विम्याचा हप्ता भरण्याचे प्रमाण नगण्य आहे. यासाठी धोरणात्मक सुधारणा करून योग्य पीक विमा योजना तयार करून शेतकऱ्यांना पीक विम्याचा हप्ता भरण्यासाठी प्रवृत्त करता येऊ शकते.
- शेतजमिनीची पीक पूर्व मशागत करण्यासाठी राब वापरत असल्याचे शेतकऱ्यांनी पीक खर्चात नमूद केले नाही.
- जमिनीची भाडे रक्कम महात्मा फुले कृषि विद्यापीठाशी चर्चा केल्यानुसार मुख्य उत्पादन व उप-उत्पादने यांच्या विक्रीच्या रक्कमेतून जमिन महसूल व इतर कर वजा जाता शिल्लक राहिलेल्या एकूण रकमेच्या १/६ (एक षष्टांश) इतकी ठरवली आहे. ही नाममात्र रक्कम असून ती उत्पादनाच्या अथवा उप-उत्पादनाच्या किंमती प्रमाणे बदलते. या पेक्षा जमीन महसूल व इतर करांच्या काही ठराविक पट अशी जमिनीची भाडे रक्कम ठरवणे अधिक योग्य होईल.
- या सर्वेक्षणाचा मुख्य उद्देश जिल्हा निहाय पीक निहाय स्थूल मूल्य वृद्धी काढण्यासाठी पीक उत्पादनाकरिता लागणाऱ्या जिल्हानिहाय निविष्ठांची रक्कम अंदाजित करणे हा आहे.
- राज्य व जिल्हा उत्पन्न परिगणनासाठी पायाभूत वर्षात सुधारणा करण्याच्या अनुषंगाने अशा प्रकारचे सर्वेक्षण घेणे आवश्यक असते ज्यामुळे जिल्हा निहाय पीक निहाय निविष्ठा रकमांचे अद्ययावतीकरण करता येईल. असे सर्वेक्षण ५ वर्षातून एकदा किंवा दरवर्षी २० टक्के पिकांचा समावेश करून करता येईल, जेणेकरुन ५ वर्षात सर्व पिकांचे सर्वेक्षण होऊ शकेल. या संबंधीचा निर्णय सर्वेक्षणाची गरज व आणि उपलब्ध संसाधनांच्या आधारे घेता येईल. हे सर्वेक्षण २०१७-१८ हे संभाव्य नवीन पायाभूत वर्ष विचारात घेऊन हाती घेण्यात आले. परंतु नामिकासूचीतील संस्थांकडून निविदेस प्रतिसाद न मिळाल्याने हे सर्वेक्षण करण्यासाठी संस्था-निवड करता आली नाही. या करिता निविदा प्रक्रिया व दोन वेळा पुर्ननिविदा प्रक्रिया राबवण्यात आली व जून,२०१८ मधे संस्था निश्चित करण्यात आली. त्यानंतर २०१८-१९ या संदर्भ वर्षासाठी माहिती गोळा करण्यात आली.
- या सर्वेक्षणात विचारार्थ घेतलेल्या अनेक मापदंडांच्या निष्कर्षांबाबत अधिक सखोल अभ्यास करण्याची गरज भासू शकते. त्या करिता लहान आकार असलेल्या सर्वेक्षणांचे आयोजन प्रतिसादकांच्या उपलब्ध असलेल्या यादीच्या आधारे करता येऊ शकते.

- या सर्वेक्षणात गोळा करण्यात आलेल्या माहितीचा उपयोग शेतकऱ्यांचे उत्पन्न वाढवणे, कृषि क्षेत्रात केलेल्या सुधारणांचा परिणाम, मजुरी अगर भांडवलाचे उत्पादन खर्चात अधिक प्रमाण असणाऱ्या पिकांचे अर्थकारण इत्यादी विविध प्रश्न व समस्यांच्या विश्लेषणासाठी होऊ शकतो.
- पिकांवरील खर्च व परतावा यांच्या विश्लेषणातून छोट्या, मध्यम व मोठ्या शेतकऱ्यांना (छोटे शेतकरी भूधारणा १ हेक्टरपेक्षा कमी, मध्यम शेतकरी भूधारणा १ ते २ हेक्टर व मोठे शेतकरी भूधारणा २ हेक्टरपेक्षा अधिक) कोणत्या पिकांच्या लागवडीतून तुलनेने अधिक परतावा मिळू शकतो यासंबंधी ढोबळमानाने दिशानिर्देश मिळतात. राज्यात मोठ्या संख्येने असलेल्या छोट्या शेतकऱ्यांच्या दृष्टीकोनातून हे विश्लेषण महत्वपूर्ण व फायदेशीर ठरु शकते.
- पुष्प शेती, मसाले, औषधी वनस्पती इ. अंतर्गत पिकांचा सर्वेक्षणात अंतर्भाव होऊ शकला नाही. यातील पिकांचे उत्पादन जरी तुलनेने कमी असले तरी या पिकांपासून होणारे मूल्य वर्धन लक्षणीय असू शकते. म्हणून अशा पिकांकरिता स्वतंत्र सर्वेक्षण घेऊन अशा पिकांचे सकल मूल्यवर्धनातील योगदान काढता येऊ शकेल.
- अर्थ व सांख्यिकी संचालनालयाने काही अनुषंगिक अभ्यास या सर्वेक्षणा बरोबर केले. या अभ्यासात परसदारातील शेती, करार शेती, सेंद्रीय शेती अशा पद्धतींचा यांचा अवलंब केल्यास पारंपरिक शेतीच्या तुलनेत होणारी मूल्यवृद्धी, शेतकऱ्यांनीच शेतमालाची प्राथमिक प्रक्रिया केल्यास त्यातून शेतकऱ्यांसाठी मिळणारा मूल्यवृद्धीचा परिणाम तसेच प्रमुख पिकांमध्ये अंतर्भाव न होऊ शकणाऱ्या गवत व चारा पिकांमुळे होणारी मूल्य वृद्धी, शेतीसाठी डिझेलचा वापर इत्यादी अभ्यासांचा समावेश होता. या संबंधीचा अहवाल स्वतंत्रपणे भाग ३ मध्ये देण्यात आला आहे.
- अशा प्रकारचे सर्वेक्षण प्रथमच करण्यात येत असल्याने त्यातील निष्कर्षांची तुलना पूर्वीच्या निष्कर्षांशी करता येणार नाही. कृषि विद्यापीठाने केलेल्या उत्पादन खर्च अभ्यासांच्या निष्कर्षांबरोबर या सर्वेक्षणातील निष्कर्षाची तुलना कदाचित होऊ शकते परंतु अशी तुलना करताना या दोन्ही सर्वेक्षणांच्या कार्यपद्धती वेगवेगळ्या आहेत हे लक्षात घेणे आवश्यक आहे.
- संशोधकांना या सर्वेक्षणात गोळा करण्यात आलेल्या माहितीच्या आधारे अभ्यास करावयाचा असल्यास ते अर्थ व सांख्यिकी संचालनालयाशी संपर्क साधू शकतात. प्रतिसादकांची चिन्हीकरण माहिती गुप्त ठेवून उर्वरित माहिती देता येऊ शकेल, तथापि या माहिती आधारे केलेले विश्लेषण व संशोधन संचालनालयाला उपलब्ध करून देणे आवश्यक आहे.
- अर्थ व सांख्यिकी संचालनालय या अभ्यासावर अभिप्राय, टिपण्णी /सूचना देण्याची विनंती करीत आहे, ज्याचा उपयोग भविष्यात अशी सर्वेक्षणे करताना सुधारणा करण्यासाठी होऊ शकेल.

***

CHAPTER- 1

1. Introduction and Background:

1.1 Introduction:

The Directorate of Economics and Statistics is functioning as a principal statistical organisation of the State Government.

The main functions of the Directorate are:

(i) collection of official statistics,

(ii) collection of data through surveys, type studies and censuses on matters for which official statistics are inadequate,

(iii) analysis of data collected,

(iv) conduct evaluation studies of important schemes/programmes,

(v) publish statistical publications regularly,

(vi) impart training to statistics personnel,

(vii) co-ordinate the work of statistical cells in various departments of the State Government and give them technical guidance,

(viii) advice on economic and statistical matters to the State Government

(ix) process statistical information collected by this Directorate and other departments of the Government.

Being the principal statistical office in the State, the Directorate has to act as liaison between the State Government and the Central Government on all statistical matters.

During 1989-90, the State Government had declared 'Directorate of Economics and Statistics' as the 'Nodal Agency' for all the statistical activities in the State. The Directorate has also been authorized as 'Authority of Reference' for all types of statistical proposals. The State Government has enhanced the scope of activities of Directorate as a 'Nodal Agency' for developing an efficient statistical system and ensuring technical co-ordination in all the matters relating to statistical activities in the State vide notification dated 27th June 2013, published in the Gazette of the State Government. As a 'Nodal Agency' various responsibilities have been entrusted to the Directorate of Economics and Statistics such as co-ordination of statistical activities of various line departments / organisations of the State, generation & preservation of data required in different policy sectors and suggesting measures to improve the quality, coverage, regularity and reliability of data series in the State, scrutinizing and examining all statistical schemes pertaining to all other Departments / Organizations of the State in respect of objectives and statistical criterion, to establish the State Data Bank to gather the information of all the Government Departments at one place, to develop a software for easily making available Statistical information (Data) to various Departments of the State Government, researchers, NGOs and public in general, etc.

1.2 Background:

Directorate of Economics and Statistics (DES) Maharashtra compiles Gross State Domestic Product (GSDP), Gross District Domestic Product (GDDP) and Per Capita Income as per the guidelines given by National Statistics Office (NSO), MoSPI, GoI. For this compilation, the data available from the administrative records of various sectors is used. In case of unavailability of data, results of survey are being used. The estimation of crop sector is done using Production Approach.

For estimation of Gross Value Added (GVA) from Crop sector at State level, crop wise Gross Value of Output (GVO) is compiled on the basis of area, production and prices available from administrative records. Intermediate Consumption (IC) or Inputs compiled, combined for all crops is deducted. For the estimation of IC or inputs for the crop production, some of the items are compiled on the basis of Cost of Cultivation Studies (CCS) conducted by Ministry of Agriculture and Farmer's Welfare (MoA&FW), GoI through various agriculture universities in the states.

Results of survey are available at State level whereas, similar data at District level is not available. The GDDP, thus compiled, provides only a broad judgment of income at district level. Therefore, with the objective of enhancing the quality of data, the Thirteenth Finance Commission (FC-XIII) provided grants to strengthen State & District Statistical System in the State wherein "Improvement of data in respect of farm activities" is one of the milestones.

The activities conceived under this milestone are:

- Identification of major crops, fruits & vegetables in each district and for each such identified crops, estimates of cultivated area, production and peak period arrival prices at primary market
- Conducting cost of cultivation studies for the use of estimating district level Gross Value Added (GVA) of each identified crop
- Collection of data on production and prices for Horticulture and other crops, either from the existing administrative records and by conducting special studies

Under this milestone, DES compiled data from various administrative records and from the concerned agencies in the State and report was prepared and submitted to NSO. The CCS are conducted for limited crops in the states mainly for determining Minimum Support Prices (MSPs). This number differs from state to state. In Maharashtra, CCS is conducted for 17 crops. The State of Maharashtra separately conducts CCS for another 29 crops mainly to propose the MSPs of these crops in the State. The study of these CCS reveals that due to relatively small sample size in the districts, though these studies can give results at state level but not at district level. Thus, the un-availability of CCS results for all crops at state level and for major crops district wise is a data gap which needs to be filled. As per the guidance of NSO in this regard, DES proposed to conduct survey in line with CCS.

In order to achieve the above milestones, following survey in line with CCS was undertaken.

'To conduct survey for estimates of cultivated area, production, peak period arrival prices at primary market/farm harvest prices, inputs, market charges, transportation charges etc. for on an average 10 major crops and 10 major fruits/vegetables' (including condiment & spices, medicinal plants/herbs, plantation crops, etc.) (the no. of major crops/fruits/vegetables may differ from district to district i.e., less or more than 20. In all, on an average 20 major crops/fruits/vegetables per district are to be surveyed). The desired outcome of the survey is to have per crop input cost for all the three seasons (Summer, Kharif, Rabi) separately as well as average annual input cost for each identified crop for each district and should give the district wise crop wise statistically reliable results of the major crops and fruits & vegetables in that particular district for all districts in the State.

Along with the survey, related special studies on following subjects were also expected to be undertaken in context with their contribution to Gross Value Added of Crop sector.

1. Organic Farming, Contractual Farming & Backyard Farming;
2. Yield Rate for Grass & Fodder,
3. Ratios of production of coriander leaf- seeds, Fenugreek-seeds, Cashew fruit-cashew nuts, Ginger-dry ginger, Green chilies-dry-red chilies, Kokum etc.
4. Production and value of Gur, Khandsari and their ratio with the total sugarcane production & value.
5. Production & peak period arrival prices at primary market/farm harvest price of Palmyra sugar and Gur
6. Number of Diesel engines used for agriculture and diesel consumption
7. Others, if any. (in context of contribution to the State/District income)

For conducting the survey for collection of Farm Activities Data and other related studies, DES approached Agriculture Department of State and Mahatma Phule Agriculture University. On the basis of the response, it was decided to undertake the survey through outsourcing as it was not feasible to conduct the same inhouse due to shortage of manpower and other technical difficulties. A committee was formed for monitoring tendering process and RFP was prepared. The limited tenders were called from the empanelled agencies and through successful completion of e-tendering process, M/s.AFC India Ltd. (formerly Agriculture Finance Corporation Ltd.) was selected. District wise major crops decided on the basis of last three years data of crop wise GVO were provided to the agency for reference and the agency was instructed to carry out their background analysis on similar lines and arrive at the district wise major crops and share the same with DES. Accordingly, the list of crops was shared and mutually decided. Questionnaire was discussed and finalised in the committee meeting.

The selected agency has completed the field work of survey for Kharif, Rabi and Summer season crops and perennial crops. Total 83 crops were covered from all 34 districts (except Mumbai & Mumbai Suburban). In all, 680-district wise crop wise combinations have been surveyed. Required fieldwork as well as background research was done for the related special studies and on the basis of field experience, the subjects for the related studies have been modified.

1.3 Method of Computing Cost of Cultivation:

The cost of cultivation studies is conducted by Government of India and Government of Maharashtra in Maharashtra state through agricultural universities. These studies are conducted for identified crops for estimating cost of cultivation at a state level for respective crops and not at district level, thus the target sample of respondents is spread over districts, analysis and estimation is done for the state as a whole. These studies are conducted by agricultural universities using 'Cost Accountant Method' In this method periodic visits, generally weekly, are undertaken to the farms of selected farmers and costs of all activities undertaken by the farmer since earlier visit are recorded in prescribed formats in an elaborate and detailed manner, manually.

Generally, 12 to 18 visits are conducted during a crop cycle. The data collected is analysed by the universities. The entire exercise is undertaken as per guidelines, directions of the central government authorities, which ensures uniformity across various states. These estimates of cost of cultivation are then used for estimation of state level inputs for Gross State Domestic Product.

In order to improve the quality of data compiled in respect of various crops, central government provided grants to states for estimating district wise input costs to facilitate district wise estimation of Gross Domestic Product.

Thus, DES intended to conduct a study on cost of cultivation for district wise major crops. For this study 'Survey Method' of cost of cultivation is used. In this method, a personal interview is conducted with the selected farmer of identified crop in districts, post harvest, and data on costs incurred is compiled on memory recall basis by trained enumerators. Generally, all paid out costs which are incurred for the specific crop are recorded, information on some of the cost components, say electricity, are apportioned for the crop using area the identified crop.

Moreover, some of the norms, as used by the agricultural universities, are adopted for estimating costs under concerned heads. E.g., the entire amount of money spent for the crop during the cropping cycle, is considered as 'working capital, and interest at a flat rate of 6 percent is charged as cost, irrespective of the fact whether farmer has borrowed money or not.

As the interview length in terms of time is a limiting factor in survey method, compiling information on items like, depreciation, interest on long term loans etc. being very time consuming, was estimated using ratios of respective cost estimates of agricultural universities to working capital costs.

An item wise method of estimation of cost heads is given in Chapter 2.

1.4 Tendering and Assignment of Study:

In response to the tender notice of DES, AFC India Ltd. (AFC) submitted a quotation, made a presentation, and was finally awarded the study as per work order dated 20 June 2018. This report presents the findings of the study pertaining to Part (A) i.e., Estimation of Cost of Cultivation of major crops in 34 districts of Maharashtra. This report presents findings of the study, as it evolved, with periodic interactions with DES, Mahatma Phule Krishi Vidyapeeth, and generally in conformity with the tender submitted to DES, and course of actions, methods of analysis as mutually agreed upon from time to time.

The field investigations for this study were conducted for the period June 2018 to May 2019 for all crops during Kharif 2018, Rabi 2018-19, summer 2019 & fruit bearing Plantation crops in 2018-19. In addition to field supervision and data quality assurance majors by AFC, verification visits were conducted by officials of DES in 6 divisions of Maharashtra.

CHAPTER 2

2 Approach and Methodology

2.1 Genesis:

There are 36 districts in Maharashtra State and 34 districts excluding Mumbai & Sub-urban Mumbai were selected for the study. The crops to be selected for the study were identified using following principle: Gross value of output of a crop on the basis of average production of crop in the last three year (2014-15, 2015-16, 2016-17) and the average price realized in the concerned agriculture Produce Market Committee, were arranged in descending order. And crops covering 95 percent of the total output in the district were included in the study. As on an average 20 crops were to be selected from each district, all crops, where number of crops covering 95 percent of output in a district was less than 20, were selected for the study. More number of crops was selected from remaining districts to achieve an average of 20 numbers of crops in each district. It is to be noted that area under the crop in a district was not a major parameter for inclusion in the study, but the gross value of output was a major consideration in inclusion in the study. Although it was possible to get triennial information on major cereals, pulses, some of the fruits and vegetables, compiling information on spices and medicinal plants were challenging. This issue was discussed with DES and based on data compiled by DES in respect of earlier year, and following principle of high gross value crop was selected, and a list of crops to be covered in each district was arrived at. The information regarding the major crops selected in respective districts to generate cost estimate is incorporated in TableII-1.

The Directorate of Economics and Statistics (DES) desired to conduct survey for collection of Farm Activities Data and other related studies.

Collection of Farm Activities Data – This includes

(i) Identification of 10 major crops and 10 fruits & vegetables including condiment & spices, medicinal plants/herbs, plantation crops, etc. in each district of Maharashtra.

(ii) For each (20) identified crops - estimates of cultivated area, production, peak period arrival prices at primary market/farm harvest prices, inputs, market charges, transportation charges etc. in all the three seasons (Summer, Kharif, Rabi). DES also desires to have per crop input cost for all the three seasons separately as well as average annual input cost for each identified crop for each district.

(iii) For each such identified crop, to conduct a survey for cost of cultivation studies which is to be used for estimating district level inputs and thereby Gross Value Added (GVA).

To collect data on production and prices for horticulture and other crops, either from the existing administrative records or by conducting special studies in case of non-availability of the data.

2.2 Approach

The scope of the study has diverse dimensions to cover. In order to accomplish the task, the following approach was adopted.

- **i.** Constitution of a Multi-disciplinary Team of Experts and depending on allotment of studies (internally), different field teams were constituted.
- **ii.** Designing appropriate formats for collection and of available secondary data; Collecting the research available data and statistics of each study. The check lists were designed to address the gaps as reported by project-authorities and reasons thereof, constraints and difficulties if any in achieving the targets.
- **iii.** Test checking of the study tools/formats
- **iv.** Orientation programme to the Supervisor and enumerator or field team.
- **v.** Discussions with concern Department Officials at different levels for each of the study.
- **vi.** Primary & Secondary data was collected for each of the selected projects for the study through one to one and one and many interactions, perusal of records and discussions with key informants available at the project levels.
- **vii.** Sharing the field progress with department officials.
- **viii.** Tools like FGD (Focused Group Discussions) with various local committees were exercised.
- **ix.** Data entry, Analysis and Interpretation
- **x.** Developing suitable output tables to facilitate review, interpretation and analysis of the data.

2.3 Methodology

The methodology broadly consists of research, secondary data collection, Primary data collection through field survey, collection of other relevant information and deliberations. It may vary according to category of projects and also study to study.

The Methodology of the studies can be grouped in two sections:

Group – 1 Collection of Farm Activities Data

Group – 2 Other related special studies (as specified)

Group – 1: COLLECTION OF FARM ACTIVITIES DATA

Deployment of Study teams

The Core Team and Research team was formed for conducting farm activities data and studies comprise of enumerator, supervisor and experts. It ensured that the selected team member had the required educational qualification and experience in particular subject and language proficiency in Marathi/English was comprised for each study.

Liasoning with the line department

Before preparation of the study tools, communication was held with the line departments regarding availability & types of data, which would help to design the study tools. Line departments included following:

1. Agriculture department, GoM, Mantralaya, Mumbai
2. Office of Commissioner of Agriculture, GoM, Pune
3. Office of Sugarcane Commissioner, GoM, Pune
4. Directorate of Horticulture, GoM, Pune
5. Maharashtra State Agriculture Marketing Board, Pune
6. Rajya Krishi Mulya Aayog, GoM, Mumbai
7. Agricultural Universities–
    1. *Dr. Babasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli.*
    2. *Mahatma Phule Krishi Vidyapeeth, Rahuri.*
    3. *Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani.*
    4. *Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola.*

2.3.1 Sampling design:

34 districts in the state were considered for the study, and the crops to be selected for the study were identified using following principle: Gross value of output of a crop on the basis of average production of crop in the last three year (2014-15, 2015-16, 2016-17) And the average price realized in the concerned agriculture Produce Market Committee, were arranged in descending order. And crops covering 95 percent of the total output in the district were included in the study. As on an average 20 crops were to be selected from each district, all crops, where number of crops covering 95 percent of output in a district was less than 20, were selected for the study. More number of crops was selected from remaining districts to achieve an average of 20 numbers of crops in each district. It is to be noted that area under the crop in a district was not a major parameter for inclusion in the study, but the gross value of output was a major consideration in inclusion in the study. Although it was possible to get triennial information on major cereals, pulses, some of the fruits and vegetables, compiling information on spices and medicinal plants were challenging. This issue was discussed with DES and based on data compiled by DES in respect of earlier year, and following principle of high gross value crop gets selected, a list of crops to be covered in each district was arrived at. **Table II.1** presents the district wise list of crops selected for the study.

Sampling Technique

Three stage sampling technique was used for the selection of farm households in each district.

Selection of Blocks

At the first stage of sampling, two blocks from each district were selected having higher area under the selected crops.

Selection of Villages

At the second stage of sampling, four villages/ cluster of villages from each selected block were chosen. While selecting the sample villages due consideration was given to the higher area under particular crops grown in that district.

Selection of Famer

At the third stage of sampling, five farmers growing particular crop under study from each village were selected thus total 20 farmers for each identified crop in each district. As the sample of the study is spread over all the 34 districts in the state (except Mumbai and Suburban Mumbai) resultantly all the agro climatic zones got covered. **Table II.2** presents the district wise, agro climatic zone wise number of crops covered in the study. It is to be noted that, as the district wise estimation of ratios of gross value addition is the objective of the study, geographical classification with district as a unit is an overarching consideration rather than agro climatic zone, irrigated or rained status of cultivation, as the data pertaining to crop production in districts is available but not according to agro climatic zone, irrigated/rain fed status of cultivation. Based on the sowing report of each district, two blocks having highest area under the identified crop were selected from each district. Further from the respective Taluka Agricultural Office, three or four villages having higher area under the identified crop were selected. Although it was decided to select five farmers each from two villages in a block, in case five farmer are not available during survey days, farmer from third/fourth village were selected. Thus ordinarily, two blocks per crop in a district, two villages per block i.e., 4 villages in a district, and five farmer per village, thus twenty farmers were selected for each identified crop in each district. Although efforts were made to follow the pre-decided sampling plan due to non-availability of respondents on survey days in approximately 30% of cases either additional village was selected or more than 5 numbers of farmers were selected from a village. From a given village, a progressive farmer for identified crop was selected in consultation with Sarpanch/Talathi/Village Development officer/ Circle Agriculture Officer. After covering that farmer, two farmers on the right-hand side of average (imaginary) median of the village and two farmers on the left-hand side of such median were selected to cover five farmers per village. This procedure ensured fairly random selection of farmer. The crop wise district wise coverage of number of farmers is presented in **Table II.3** a total of 13,600 farmers was selected for the study. (34*20*20 =13,600).

2.3.2 Geographical Coverage:

The whole state excluding Mumbai and Mumbai Suburban districts is termed as Population. For remaining 34 districts, secondary data regarding cultivation and production was gathered from various departments mentioned earlier.

2.3.3. Operational methodology:

After studying guidelines for the cost of cultivation by ministry of agriculture, discussions with officials of agricultural university, it was apparent that methodology recommended, adopted by MPKV is in consonance with 'cost accounting method of estimation of cost of cultivation', whereas the present study is adopting survey method for estimating the cost of cultivation.

The format for estimation of cost of cultivation according to different heads of expenditure was obtained from MPKV. After studying the format and discussions with officials, a draft questionnaire for farmer was designed and pilot tested in Pune district. In light of the findings of pilot study, it was modified, then discussed with officials of MPKV and then was finalized. Computer Aided Personal Interview (CAPI) method was adopted for the study, obviating the need for any printed schedules to be used. An instruction set was prepared for enumerator a team of enumerator, supervisor and coordinator was specifically selected for this study. One day training was given to all team member the training involved a brief to the research team on overall interventions and rationale, broad objectives of the survey exercise, explanation of questionnaires and query resolution with regard to survey questionnaires, technique of data validation and instructions to the enumerator with respect to quality control in the survey. All enumerator were provided an opportunity of pilot study, their difficulties/doubts was clarified and then regular field work was launched. The field work was supervised, supervisor insure a minimum of eight percent back check at field level and about five percent back check from base office on cellphone.

Data verification and validation was done to evaluate whether data has been generated according to specifications, satisfy acceptance criteria, and a process for evaluating performance and compliance of a set of data when compared to a set of standards to ascertain its completeness, correctness, and consistency using the methods and criteria defined in the project documentation. Data validation followed the data verification process and uses information from the project documentation to ascertain the usability of the data in light of its measurement quality, objectives and to ensure that results obtained are acceptable. The data collected by the team members was further examined by the core team experts and after duly incorporating the necessary corrections in the data entered in a structured database normally available and compatible with all levels i.e.MS-Excel. The raw data was received in electronic format from the agency. The data was scrutinized and the validated data was received in electronic format to DES.

The data thus generated was subjected to validation checks through comparison with parameter norms for various items, logicality and relevance of the information recorded to the focus of the various questions. The information collected through Knowledge Information Institute (KII) and open discussion with community will also be used. KII are agricultural universities, training institutes of Khadi & Village Industries Commission, open discussion with community included initial discussions in selected villages with panchayat member, progressive farmer, etc. Other checks were in relation to consistency of answer, the expected data ranges and the contexts thereof. Majority of the data analysis was carried out through MS Excel. Some of the relevant Analysis Techniques like frequency distribution, descriptive statistics, cross-tabulation, text analysis etc. are used.

2.4 Item wise estimation of costs:

The format of cost of cultivation obtained from MPKV was studied and discussed in detail with officials of MPKV and DES. As the methodology of MPKV was different from that adopted in present study, it was decided to use the method of estimation as mentioned in **TableII.4.**

Wherever incidence of intercrop was reported all cost estimates for the identified crop were apportioned on the basis of crop geometry for the concerned intercrop (it is to be noted that Tur was the only crop for which occurrence of intercropping was reported amongst selected sample). It is to be noted that even if, both the crops in intercropping of the respondent were identified for the district, only one crop was considered for this study, i.e., 20 unique respondents were selected for each identified crop in each district.

During field investigations it was observed that farmers are out sourcing some of the activities during the life cycle of a crop. E.g., ploughing using tractor is out sourced, harvesting of Soyabeans using harvester machine is out sourced, plantation of onion plants from nursery etc. Details of resources deployed by such contractor were not known in detail to responding farmer, for him the cost incurred was on 'contract for some activity'. In order to decipher it breaks up in to 'labour' and, 'mechanical power' discussions were held with professor in Agriculture College, our key team member Based on details on activities contracted out in respect different activities for different crops, an objective analysis was not possible, as data on contractor' deployment of resources was not available with responding farmer Hence based on experience of experts, approximate share of 'labour' in contracted activities was estimated at 65 percent and remaining 35 percent was considered as that of 'mechanical power', and was apportioned accordingly in the estimation of cost of cultivation.

2.5 Report:

The observations for each of the selected study were documented separately and are presented in the report. Suitable output tables were developed to facilitate review, interpretation and analysis of the data.

Report of this survey and other related studies has been prepared and presented in three volumes. Volume I focus mainly on the state level results, Volume II gives district wise crop wise results and the Volume III covers other related special studies.

- **Volume I** is the main introductory part of the report which presents background, introduction, genesis, approach & methodology in details and highlights executive summary and key findings from this Survey. The cost of cultivation results at state level based on the samples selected, cost analysis and crop profiles are included in this volume.
- **Volume II** gives introduction, background, approach and methodology in brief and incorporates the cost of cultivation results of 680 district-crop combinations covered under the study along with the state level cost of cultivation results based on the samples selected from various districts. It also includes the season wise crop wise district wise inputs. This Volume-II is important particularly for those who intend to analyze the results of crops at district level. Some of the details from Volume I are repeated in Volume II for ready reference.
- **Volume III** gives the details about the other related special studies conducted in this regard which mainly includes Organic farming, Contractual farming, Backyard farming, Fodder & Grass etc.

Table II.1 List of district wise crops selected

Season: Kharif	
District	**Crops selected**
Ahmednagar	Tur, Cotton, Soyabean, Maize, Beans, Moong, Udid.
Akola	Cotton, Bajra, Ginger, Tur, Groundnut, Bottle gourd, Pointed gourd, Sweet Potato, Turmeric, Cauliflower, Capsicum, Pumpkin, Other Vegetables (Cluster bean), Udid, Moong, Jowar, Soyabean.
Amravati	Moong, Soyabean, Cotton, Tur, Jowar, Brinjal, Turmeric, Tomato, Ginger.
Aurangabad	Bajra, Cotton, Maize, Ginger, Soyabean, Capsicum, Other Vegetables (Cluster bean), Pumpkin, Green Chili, Tur, Turmeric, Moong, Cauliflower.
Beed	Moong, Bottle gourd, Groundnut , Ginger, Red Chili, Udid, Ridge guard, Soyabean, Bajra, Coriander, Cotton, Maize, Tur, Jowar, Sweet potato.
Bhandara	Soyabean, Red Chili, Paddy, Ginger, Green Chili, Okra, Tomato, Coriander, Turmeric, Tur.
Buldhana	Cotton, Jowar, Maize, Moong, Soyabean, Tur, Udid, Onion, Bajra, Brinjal, Cabbage, Green Chili, Coriander, Cauliflower, Tomato, Beans, Okra, Turmeric.
Chandrapur	Cotton, Soyabean, Brinjal, Cabbage, Cauliflower, Green Chili, Okra, Tomato, Paddy, Tur, Beans, Coriander, Fenugreek, Sponge gourd, Leafy vegetables, Other Vegetables (Cluster bean).
Dhule	Paddy, Bajra, Cotton, Groundnut, Jowar, Green Chili, Moong, Soyabean, Tur, Udid, Brinjal, Cabbage, Okra, Onion, Cauliflower, Tomato, Coriander, Maize.
Gadchiroli	Paddy, Beans, Tomato, Cotton, Tur, Brinjal.
Gondia	Beans, Capsicum, Bitter gourd, Okra, Tur, Paddy, Red Chili.
Hingoli	Bajra, Cotton, Jowar, Moong, Soyabean, Tur, Udid, Brinjal, Okra, Other Vegetables (Cluster bean), Tomato, Cauliflower, Turmeric, Ginger, Onion.
Jalna	Maize, Cotton, Beans, Soyabean, Bajra, Tur, Turmeric, Moong, Udid, Onion, Ginger.
Jalgaon	Maize, Onion, Udid, Ginger, Brinjal, Okra, Coriander, Coriander seed, Turmeric, Jowar, Moong, Soyabean, Tur, Cotton, Green Chili.
Kolhapur	Ginger, Potato, Turmeric, Sweet potato, Cauliflower, Cabbage, Beans, Paddy, Soyabean, Groundnut.
Latur	Cotton, Moong, Soyabean, Tur, Udid, Beans, Cauliflower, Green Chili, Jowar, Bajra, Maize.
Nagpur	Paddy, Cotton, Soyabean, Brinjal, Tomato, Green Chili, Coriander, Ridge gourd, Leafy Vegetables (Spinach), Tur, Bitter gourd, Beans.
Nanded	Cotton, Soyabean, Tur, Onion, Cauliflower, Moong, Jowar, Bajra, Maize, Groundnut, Turmeric, Udid.
Nandurbar	Cauliflower, Fenugreek, Maize, Moong, Udid, Tur, Soyabean, Paddy, Cotton, Red Chili, Green Chili, Jowar, Onion, Ajwain, Turmeric.
Nashik	Cotton, Bajra, Groundnut, Maize, Soyabean, Beans, Brinjal, Onion, Paddy, Ragi, Tomato, Coriander, Cabbage, Cauliflower, Green Chili, Tur.
Osmanabad	Bajra, Cotton, Soyabean, Tur, Udid, Groundnut, Moong, Tomato, Maize, Brinjal, Other Vegetables (Cluster bean), Okra, Green Chili, Ginger, Turmeric, Onion, Beans, Cauliflower.
Palghar	Paddy, Ragi, Udid, Brinjal, Okra, Tomato, Beans, Green Chili, Onion.

District	Crops selected
Parbhani	Cotton, Soyabean, Moong, Cauliflower, Tur, Bajra, Turmeric, Brinjal.
Pune	Onion, Other veg., Peas, Cauliflower, Cabbage, Potato, Leafy Vegetables (Spinach), Paddy, Beans, Brinjal, Soyabean, Tomato, Ridge gourd, Jowar, Moong, Maize, Bajra, Green Chili.
Raigad	Paddy, Ragi, Ridge gourd, Brinjal, Green Chili, Tomato, Okra, Tur, Udid, Onion.
Ratnagiri	Paddy, Beans, Ragi, Turmeric.
Sangli	Soyabean, Bajra, Maize, Groundnut, Jowar, Brinjal, Tomato, Potato, Onion, Cauliflower, Turmeric, Ginger.
Solapur	Tur, Udid, Tomato, Brinjal, Bajra, Beans, Onion.
Satara	Bajra, Fenugreek, Beans, Brinjal, Onion, Paddy, Soyabean, Groundnut, Turmeric, Ginger, Cauliflower, Tomato.
Sindhudurg	Bitter gourd, Ivy gourd, Ragi, Brinjal, Okra, Paddy, Other Vegetables (Cluster bean), Turmeric, Green Chili, Udid, Ginger, Maize.
Thane	Paddy, Ragi, Green Chili, Okra, Beans, Brinjal, Udid, Tomato.
Wardha	Cotton, Bajra, Beans, Groundnut, Tur, Soyabean.
Washim	Bajra, Cotton, Moong, Soyabean, Udid, Beans, Tur, Ginger.
Yavatmal	Cotton, Soyabean, Bajra, Cauliflower, Ginger, Groundnut.

Season: Rabi	
District	**Crops selected**
Ahmednagar	Gram, Wheat, Maize, Garlic, Cucumber, Jowar.
Akola	Gram, Wheat, Radish.
Amravati	Wheat, Gram, Cucumber.
Aurangabad	Gram, Jowar, Wheat, Maize, Garlic, Cucumber.
Beed	Beetroot, Pumpkin, Pointed guard, Capsicum, Jowar, Radish, Cucumber, Gram, Wheat, Garlic.
Bhandara	Wheat, Garlic, Gram.
Buldhana	Maize, Jowar, Gram, Wheat, Garlic, Carrot, Cucumber.
Chandrapur	Gram, Wheat.
Dhule	Beans, Cucumber, Cauliflower, Sponge gourd, Maize, Bitter gourd, Wheat, Jowar, Gram.
Gadchiroli	Gram, Wheat.
Gondia	Bitter gourd.
Hingoli	Garlic, Gram, Wheat.
Jalna	Maize, Gram, Wheat, Jowar, Garlic.
Jalgaon	Wheat, Gram, Garlic, Jowar, Maize.
Kolhapur	Brinjal.
Latur	Gram, Wheat, Cucumber, Jowar, Maize.

District	Crops selected
Nagpur	Gram, Cucumber, Wheat.
Nanded	Jowar, Garlic, Cucumber, Gram, Wheat.
Nandurbar	Garlic, Gram, Jowar, Maize, Wheat, Beans, Brinjal, Cucumber.
Nashik	Maize, Wheat, Gram, Cucumber, Jowar.
Osmanabad	Jowar, Gram, Wheat, Garlic, Cucumber.
Palghar	Gram.
Parbhani	Gram, Jowar, Wheat, Cucumber, Garlic.
Pune	Maize, Cucumber, Gram, Wheat.
Raigad	Cucumber, Gram, Maize.
Ratnagiri	Garlic, Brinjal.
Sangli	Jowar, Wheat, Gram, Cucumber, Maize.
Solapur	Gram, Jowar, Maize, Wheat.
Satara	Jowar, Wheat, Gram, Cucumber, Garlic.
Sindhudurg	Radish, Cucumber, Horse gram (Kulith).
Thane	Capsicum, Gram, Cucumber.
Wardha	Wheat, Gram, Garlic.
Washim	Gram, Wheat.
Yavatmal	Gram, Wheat, Cucumber, Garlic.

Season: Summer	
District	**Crops selected**
Akola	Groundnut, Watermelon.
Aurangabad	Muskmelon.
Beed	Groundnut.
Chandrapur	Paddy.
Gondia	Paddy.
Hingoli	Cucumber.
Jalgaon	Maize.
Latur	Bajra.
Nashik	Watermelon.
Osmanabad	Watermelon.
Palghar	Paddy.

Season: Perennial	
District	**Crops selected**
Ahmednagar	Pomegranate, Banana, Sugarcane, Limes, Grapes, Sweet Orange.
Akola	Limes, Sweet orange, Mango, Sapota, Banana.
Amravati	Banana, Mandarin, Sugarcane.
Aurangabad	Papaya, Banana, Limes, Sapota, Sugarcane, Mango, Sweet orange.
Beed	Sugarcane, Limes, Sapota, Sweet orange, Papaya, Banana.
Bhandara	Sugarcane.
Buldhana	Sugarcane, Guava, Pomegranate.
Dhule	Banana, Papaya, Pomegranate, Guava.
Gondia	Sugarcane.
Hingoli	Sugarcane, Banana, Papaya, Mandarin, Sweet orange, Pomegranate, Mango.
Jalna	Sugarcane, Sweet orange, Pomegranate.
Jalgaon	Banana, Limes, Sugarcane, Pomegranate, Sweet Orange.
Kolhapur	Cashewnut, Sugarcane.
Latur	Sugarcane.
Nagpur	Sweet orange, Mandarin, Sugarcane.
Nanded	Sugarcane.
Nandurbar	Sugarcane, Banana, Custard apple, Papaya.
Nashik	Sugarcane, Grapes, Pomegranate.
Osmanabad	Papaya, Pomegranate, Limes, Banana, Sapota, Guava, Mango, Sugarcane.
Palghar	Mango, Banana, Sapota.
Parbhani	Sugarcane.
Pune	Pomegranate, Sugarcane, Guava, Custard apple, Fig.
Raigad	Mango, Arecanut, Cashewnut, Custard apple, Coconut, Papaya, Sapota, Limes, Guava.
Ratnagiri	Arecanut, Cashewnut, Coconut, Mango.
Sangli	Sugarcane, Pomegranate, Mango, Banana, Grapes.
Solapur	Ber, Grapes, Banana, Sugarcane, Pomegranate, Limes.
Satara	Sugarcane, Grapes, Pomegranate, Strawberry.
Sindhudurg	Mango, Sapota, Guava, Cashewnut, Coconut, Arecanut, Papaya, Sugarcane, Banana, Other fruits.
Thane	Mango, Coconut.
Wardha	Sugarcane.
Washim	Sugarcane, Mandarin.

Table II.2 Agro climatic zone wise coverage

Agro climatic zone wise distribution of crops						
Sr. No.	Division Name	District Name	No. of crops covered	Zones covered in each district	No. of zones covered	No. of zones covered in Division
1	Konkan Division	Palghar	**14**	VRN,GH,TR1	3	**4**
		Raigad	**23**	VRL,GH	2	
		Ratnagiri	**11**	VRN,GH	2	
		Sindhudurg	**28**	VRL	1	
		Thane	14	VRN,GH,TR1	3	
2	Pune Division	Kolhapur	**13**	GH,TR1,TR2,SC	4	**6**
		Pune	**27**	GH,TR1,TR2,SC	4	
		Sangli	**22**	GH,TR1,TR2,SC	4	
		Solapur	**18**	VRN,GH,TR1,TR2,SC	5	
		Satara	**21**	SC,AR	2	
3	Aurangabad Division	Aurangabad	**27**	SC,AR	2	**3**
		Beed	**32**	SC,AR	2	
		Hingoli	**26**	AR,MR	2	
		Jalna	**19**	AR	1	
		Latur	**18**	AR	1	
		Nanded	**18**	AR,MR	2	
		Osmanabad	**32**	SC,AR	2	
		Parbhani	**14**	AR,MR	2	
4	Nashik Division	Ahmednagar	**19**	TR1,TR2,SC	3	**4**
		Dhule	**31**	TR2,SC,AR	3	
		Jalgaon	**26**	SC,AR	2	
		Nandurbar	**27**	TR2,SC	2	
		Nashik	**25**	GH,TR1,TR2,SC	4	
5	Amravati Division	Akola	**27**	AR,MR	2	**2**
		Amravati	**15**	AR	1	
		Buldhana	**28**	AR	1	
		Washim	**13**	AR,MR	2	
		Yavatmal	**12**	MR	1	
6	Nagpur Division	Bhandara	**14**	MR,HRM	2	**2**
		Chandrapur	**20**	MR,HRM	2	
		Gadchiroli	**8**	HRM	1	
		Gondia	**10**	HRM	1	
		Nagpur	**18**	MR,HRM	2	
		Wardha	**10**	MR	1	

Legend: Description of Agro-Climatic zones	
VRL	VERY HIGH RAINFALL ZONE WITH LATERATIC SOIL
VRN	VERY HIGH RAINFALL ZONE WITH NON-LATERATIC SOIL
GH	GHAT ZONE
TR1	TRANSITION ZONE 1
TR2	TRANSITION ZONE 2
SC	SCARCITY ZONE
AR	ASSURED RAINFALL ZONE
MR	MODERATE RAINFALL ZONE
HRM	HIGH RAINFALL ZONE WITH SOILS FROM MIXED PARENT MATERIAL

Table II.3 Crop wise District wise Coverage of No. of Farmers

Sr. No.	Crop	Districts	No. of Farmers
	A. Kharif Season		
1	Ajwain	1	20
2	Bajra	20	400
3	Beans	19	380
4	Bitter gourd	3	60
5	Bottle gourd	2	40
6	Brinjal	19	380
7	Cabbage	6	120
8	Capsicum	3	60
9	Cauliflower	17	340
10	Coriander	8	160
11	Coriander seed	1	20
12	Cotton	22	440
13	Fenugreek	3	60
14	Ginger	15	300
15	Green Chili	16	320
16	Groundnut	11	220
17	Jowar	12	240
18	Leafy Vegetables (Spinach)	3	60
19	Maize	15	300
20	Moong	17	340
21	Okra	12	240
22	Onion	15	300
23	Other Vegetables (Cluster bean)	7	140
24	Paddy	16	320
25	Ivy gourd	1	20
26	Peas	1	20
27	Pointed gourd	1	20
28	Potato	3	60
29	Pumpkin	2	40
30	Ragi	6	120
31	Red Chili	4	80
32	Ridge gourd	4	80
33	Soyabean	26	520
34	Sponge gourd	1	20
35	Sweet Potato	3	60
36	Tomato	17	340
37	Tur	25	500
38	Turmeric	17	340
39	Udid	18	360
	Total No. of Farmer in Kharif season		**7840**

Sr. No.	Crop	Districts	No. of Farmer
	B. Rabi Season		
40	Beans	2	40
41	Beetroot	1	20
42	Bitter gourd	2	40
43	Brinjal	3	60
44	Capsicum	2	40
45	Carrot	1	20
46	Cauliflower	1	20
47	Cucumber	20	400
48	Garlic	16	320
49	Gram	30	600
50	Jowar	16	320
51	Horse gram (Kulith)	1	20
52	Maize	13	260
53	Pumpkin	1	20
54	Pointed gourd	3	60
55	Radish	1	20
56	Sponge gourd	1	20
57	Wheat	27	540
	Total No. of Farmer in Rabi season		**2820**
	C. Summer Season		
58	Bajra	1	20
59	Cucumber	1	20
60	Groundnut	5	100
61	Maize	1	20
62	Muskmelon	1	20
63	Paddy	7	140
64	Watermelon	5	100
	Total No. of Farmer in Summer season		**420**
	D. Perennial Crops		
65	Arecanut	3	60
66	Banana	14	280
67	Ber	1	20
68	Cashewnut	4	80
69	Coconut	4	80
70	Custard Apple	3	60
71	Fig	1	20
72	Grapes	5	100
73	Guava	6	120
74	Limes	8	160
75	Mandarin	5	100
76	Mango	10	200
77	Other Fruit (Jackfruit)	1	20
78	Papaya	8	160
79	Pomegranate	12	240
80	Sapota	7	140

Sr.No.	Crop	Districts	No. of Farmer
81	Strawberry	1	20
82	Sugarcane	26	520
83	Sweet Orange	7	140
	Total No. of Farmer for Perennial crops		**2520**
		Grand Total	**13600**

Table II.4: Item wise method of estimation of cost of cultivation.

Sr. No.	Cost item	Method of estimation
1	Hired human labour (M, F)	Labour days* Per day rate paid or MNAREGA rate whichever is higher
2	Bullock pair days	Bullock pair days along with operator* market rate of hiring bullock pair and operator
3	Machine power	Usage as reported by respondents* market rate of hiring that machinery
4	Seed	Quantity and type/variety/ of seed usage as reported * market price of similar seed in the market
5	Manures	Quantity as reported* market price
6	Fertilizer	Quantity reported in terms of brand (sole, mixed, not nutrient wise) * Price reported
7	Irrigation Charges	Water charges, Electricity bill and/or Diesel Engine expenses equitably apportion on the area under the identified crop
8	Bio fertilizer/ Micronutrients	Based on quantity used and prices paid as reported in the survey and considered as a part of fertilizer
9	Plant Protection Charges	Based on usage of protective chemicals, prices paid and labour charges as reported in the study
10	Insurance Premium	As reported by respondence
11	Rab Material	As reported by respondence
12	Incidental charges	In relation to Procurement of inputs, Selling of Output and other crop related activities (like Registration, Insurance etc.) as reported in the survey
13	Weedicides	Quantity used, prices paid and labour as reported in the survey and considered as part of Plant protection Chemicals.
14	Repair on farm implements	Repair on farm implements expenses quotably Apportion on the area under the identified crop.
15	Working Capital	Sum of 1 to 14
16	Interest on Working capital	At the rate of 6 % on the working capital, as suggested by MPKV.
17	Depreciation on farm implements	Is will be computed on the basis of last year's ratio these expenses to total working capital of concerned crop for the state, obtained from Agricultural Universities.
18	Land revenue and Other Taxes	Is will be computed on the basis of last year's ratio these expenses to total working capital of concerned crop for the state, obtained from agricultural Universities.
19	**Cost A**	**Sum of 15 to 18**

Sr. No.	Cost item	Method of estimation
20	Rental value of land	1/6th of Gross Income (produce+ by produce) – (Minus) Land revenue and other taxes (at Sr. No. 18)
21	Interest on Fixed Capital	Is will be computed on the basis of last year's ratio these expenses to total working capital of concerned crop for the state, obtained from Agricultural Universities.
22	Amortization Cost	As reported in the survey to be apportion as done by MPKV.
23	**Cost B**	**Sum of 19 to22**
24	Family human labour (M, F)	Labour days* Per day rate paid or MNAREGA rate whichever is higher
25	**Cost C**	**Sum of 23 and 24**
26	Output (Quintals) main produce, By produce	Quantity and price as reported in the survey

2.6 A note on precision of estimates:

The precision of estimates based on random sample of respondents has two components, level of confidence and margin of error. Generally, when a sample of size 384 (approximately 400) is taken from a very large universe (no finite population correction) then the estimates arrived at are having 95 percent confidence level and 5 percent margin of error. It is necessary that the estimate is based on the total sample of 400 (or more).

Table II.5 A straddle indicating the confidence level and margin of error

Level of confidence %	Margin error%	Sample size (nos.)	Level of confidence %	Margin error%	Sample size (nos.)
80	15	18	**90**	16	20
80	10	41	**90**	11.4	40
80	8.3	60	**90**	9.3	60
80	7.2	79	**90**	8.1	79

Thus, in respect of present study, all crops which are covered in more than 20 districts, a sample of size 20*20=400 (or more) is covered, and for all such crops estimates arrived at are with 95 percent confidence level and 5 percent margin of error, for the state as a whole. Similarly, for all crops which are covered in 5 districts or more, i.e., where a sample of respondents is 100 (or more) the precision of estimate is 95 percent confidence level and 10 percent margin of error. However, when district wise estimates of GVA are arrived at on the basis of sample of size 20, the precision level of estimate is 80 percent confidence level and 15 percent margin of error. In fact, for the sample of size 18, (approximated to 20) the level of confidence is 80 percent confidence and 15 percent margin of error and for the sample of size 20, level of precision can be 90 percent confidence level and 16 percent margin of error.

The Coverage of crops according to no. of districts covered and accordingly total number of respondents contacted to signify precision of estimate.

Table II.6 Crop wise District wise categorization

Season	Crops available			Total
	in less than 5 districts	in 5 to 19 districts	in more than 20 districts	
Kharif	16	19	4	**39**
Rabi	12	3	3	**18**
Summer	4	3	0	**7**
Perennial	8	10	1	**19**
Total	**40**	**35**	**8**	**83**

***

CHAPTER 3

3. Findings of the Study

3.1. Findings of the Study:

During the past three decades or so, agriculture sector has experienced many changes in its production, consumption, distribution and trade regimes due to the changed global economic scenario. In this ambience, the importance of accurate and up to date information on the economics of agricultural crops can hardly be overemphasized. The knowledge of the cost and returns structure of different crops is crucial for policy formulation, selecting appropriate production strategies and identifying regional comparative advantages in crop production. The reliable information on costs and returns of various crops helps the farmer in allocating the scarce resources most optimally. Besides, such information is of critical importance to the financial and insurance institutions to make provisions for farm credit and fix insurance premia.

Moreover, for an effective planning for continuous agricultural development, the knowledge of costs and returns from different crops is of utmost importance. Further to be more precise on policy front, this information needs to be region specific as the inter-regional differences in use of inputs and the outputs received thereof cannot be ruled out. This is primarily due to the inter-regional variations of agro-economic/socio/natural resource endowments. The extent of regional differences in cost of cultivation/production of a particular crop depends on the relative share of different inputs and their respective prices in various regions. With similar soil-climate complex and uniform crop production technology, the inter-regional variations in yield can be of marginal order. Under such situation uniform input use may not lead to the significant differences in cost of cultivation/production and for this the only reason expected is the differences on account of variation in prices paid for inputs and received for outputs. However, in reality, depending on the intensity of input use or difference in natural resource endowments or both the productivity differences are commonly observed among the regions as well as among the farmer of same area. Similarly, inter-regional variations in output prices and input prices like rate of wages, custom hiring services, rental value of land, etc. cannot be ruled out. Thus, any one or combination of above discussed factor may lead to significant variations in monetary cost per unit of area or output of a given crop.

The data compiled in the field study and from universities was analyzed by core team of the study. Comparisons of costs incurred according to different heads were estimated according to methodologies as described in Chapter 2. In addition, an average cost of cultivation for the crop based on respondents from all districts covered for respective crops was also estimated.

3.2 Report Coverage:

3.2.1. Crop Profile: The report gives crop profiles for each crop**.** Each crop profile contains the geographic coverage of districts and revenue region wise break up of number of districts, talukas, villages and farmers covered for the identified crop. Similarly, the breakup of selected holdings according to standard definition of small (< 1Ha.), Medium (<2 Ha) and large (>2 Ha), total area under the crop in respective holding size, percentage of area under the crop to total holding, is presented in each profile, for complete understanding of sample farmers.

The classification of respondents according to social categories, their average family size, average holding size, principal source of income, and awareness about minimum support price for the crop under consideration is also presented in each crop profile.

3.2.1.1. Parameters for major findings of each crop in the crop profile:

For all crops covered in the study, crop profiles have been prepared. Generally, these profiles cover following major parameters.

i) Average and range of per hectare requirement of working capital (essentially paid out costs of cultivation of the crop) across districts

ii) Average and range of productivity of crop across districts

iii) Average and range of price realization for the crop across districts

iv) Range of contribution from crop (gross sales realization less working capital per hectare)

v) Percentage wise major cost component of the crop.

3.2.2. Cost of Cultivation Tables: The cost of cultivation results of the multi-seasonal crops and season wise crops at state level on the basis of samples selected are presented in this report. The statement of crop wise value of output and input costs per hectare is also given in the report. The districtwise CCS results of the crops are given in Volume II along with the input cost per hectare. Here the input costs in context with calculation of gross value added are considered and hence the input costs like labour etc. are not included in this statement.

3.2.3. Cost and Return Analysis: The cost and return analysis for the distinct crops covered in the survey is also presented in the report. This analysis gives an idea about the cost and return variations according to size of holdings and for all class of holdings.

3.2.4. Value of Output and Input Costs: The value of output and inputs for each crop in context with calculation of gross value added for the crop is given in the Statement.

3.3 Salient features and observations from the survey:

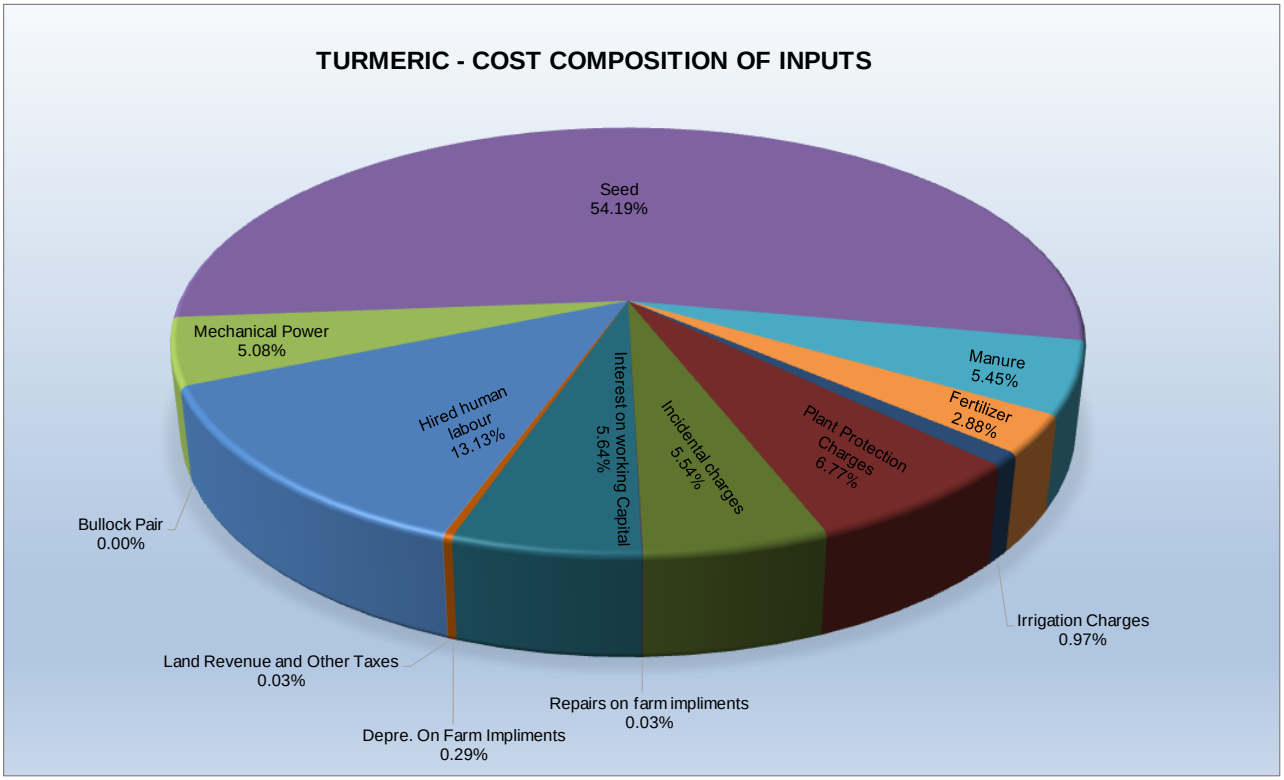
- The data were collected for the agricultural year 2018-19 using survey method.
- Overall 68 district crops were covered under the survey and samples were selected from 34 districts of the State. If season wise crops are to be considered, then the crops grown in two seasons are 14 and crops grown in three seasons are one (viz. Maize). Thus 83 crops were covered under the survey.
- Three stage sampling technique was used for the selection of farm households in each district.
- For each crop under survey, two blocks from the districts were selected, from each block two villages were selected and from each village five farmers were selected. Total no. of farmers surveyed was 13,600.
- Costs of cultivation (Costs A, B, and C, as adopted by MPKV) according to holding size, separately on the basis of area (per ha.) and output (per quintal) are estimated and presented in each profile. Generally, it is expected that if the principle of economies of scale apply, costs of cultivation for medium holdings is lesser than small holding, and that for large holding is lesser than medium holding. However, no such predominant trend can be observed across various crops identified in this study. In fact no such hypothesis was proposed to be tested in the study, nor does post facto analysis indicate any such phenomenon.

- The extent of use of hired human labour (male and female separately) indicates the extent of wage employment generated for identified crop according to holding class. There are various considerations in deploying hired labour for different crops in different regions, and as such there is no discernible trend in engaging hired human labour for different crops.
- District wise estimates of cost of cultivation can facilitate crop wise estimation of gross value addition for every district and can be used for arriving at the contribution of identified crop in the computation of district domestic product with higher precision than that computed at present.
- The cost of cultivation results of crops were analysed for inter district and intra-district comparison. The inter district analysis was helpful in providing a perspective at state level for that crop whereas the intra-district analysis of crops was outside the purview of the survey.
- The gross value of output per unit area for different holding sizes does not indicate any specific trend. The gross values of input costs per unit value of output and area are also presented in each profile to facilitate computation of Gross Value Added for respective crops.
- The cost of cultivation/production of important crops grown in thirty-four districts of Maharashtra State is presented separately in the report. It is well known that farmers differ with respect to the extent of resources owned and their use. Similarly, some of the resources are owned by farmers fully, some partially and some are hired in different proportions. The farmer gives different weight age to different resources while making the crop production decisions. Cost of crop cultivation/production analysis has, therefore, been carried out by using various farm management cost and production concepts. The relative magnitudes of costs and returns from the crop enterprise indicate the net profitability of the crop cultivation. The season wise and crop wise details provided in this chapter regarding cost of crop cultivation/production and profitability thereof may help in eliciting some general conclusions important for policy formulation.
- The cost and returns analysis shows that for all classes of farm size (holdings), most of the crops were giving overall good returns. For the large holdings, the returns were comparatively better for almost all the crops while for medium and small holdings, such number of crops giving comparatively better returns were lesser. This analysis of cost and returns is indicative and based on the survey results and depends on the samples selected. This analysis can give broad insight about which crops can give comparatively better returns in large holdings, medium holdings and small holdings. This can be mainly important and beneficial for the large number of farmers having small holdings.
- The entire study is essentially empirical in nature and presents factual details as revealed by respondents, and is self-explanatory. No causality (cause – effect relationships) is attempted to be established by this study. This study attempts to answer WHAT, WHEN, WHERE questions of the study but not WHY and HOW questions.

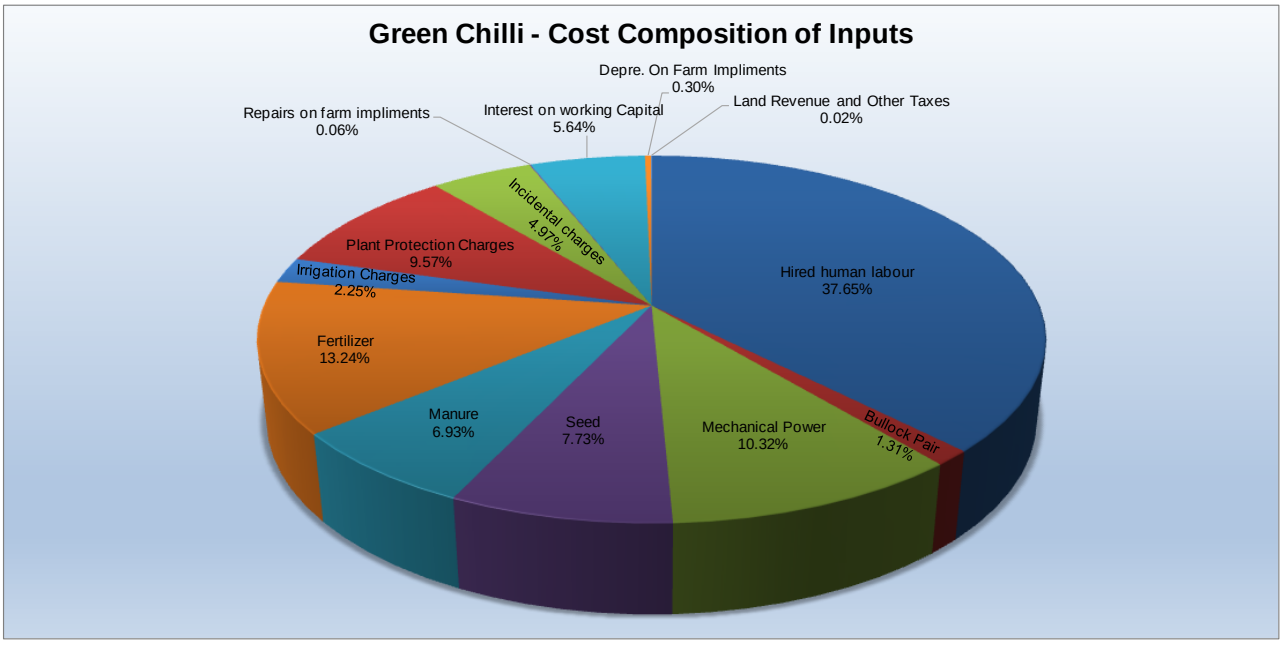
3.4 Charts and Graphs:

- Graph III.1 to Graph III.5 presents percentage composition of cost of cultivation of identified crop having highest percentage cost of i) seed (Turmeric) ii) Hired human labour (Green Chili) iii) Incidental Charges (Tomato) iv) Plant protection (Grapes) iv) Manure (Coconut).
- Graph III.6 to Graph III.9 presents productivity and price realization of cereals and pulses crop group.

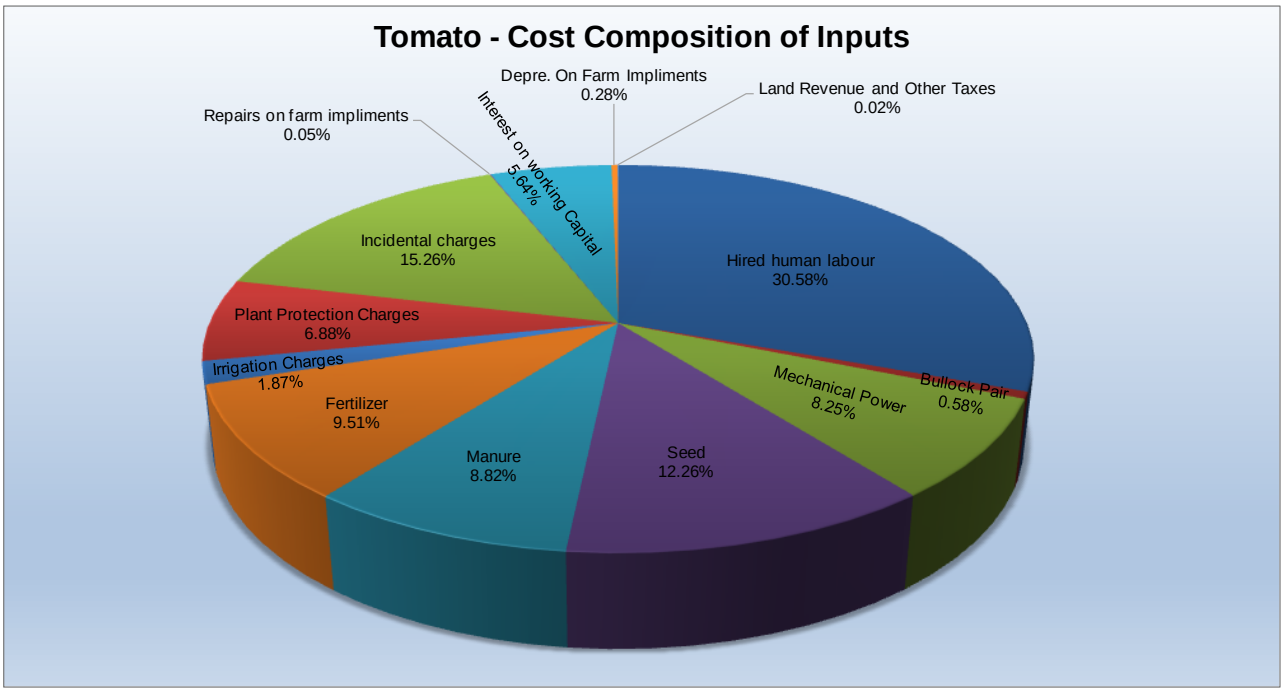
Graph III.1 : Cost composition of Input Costs for Turmeric:



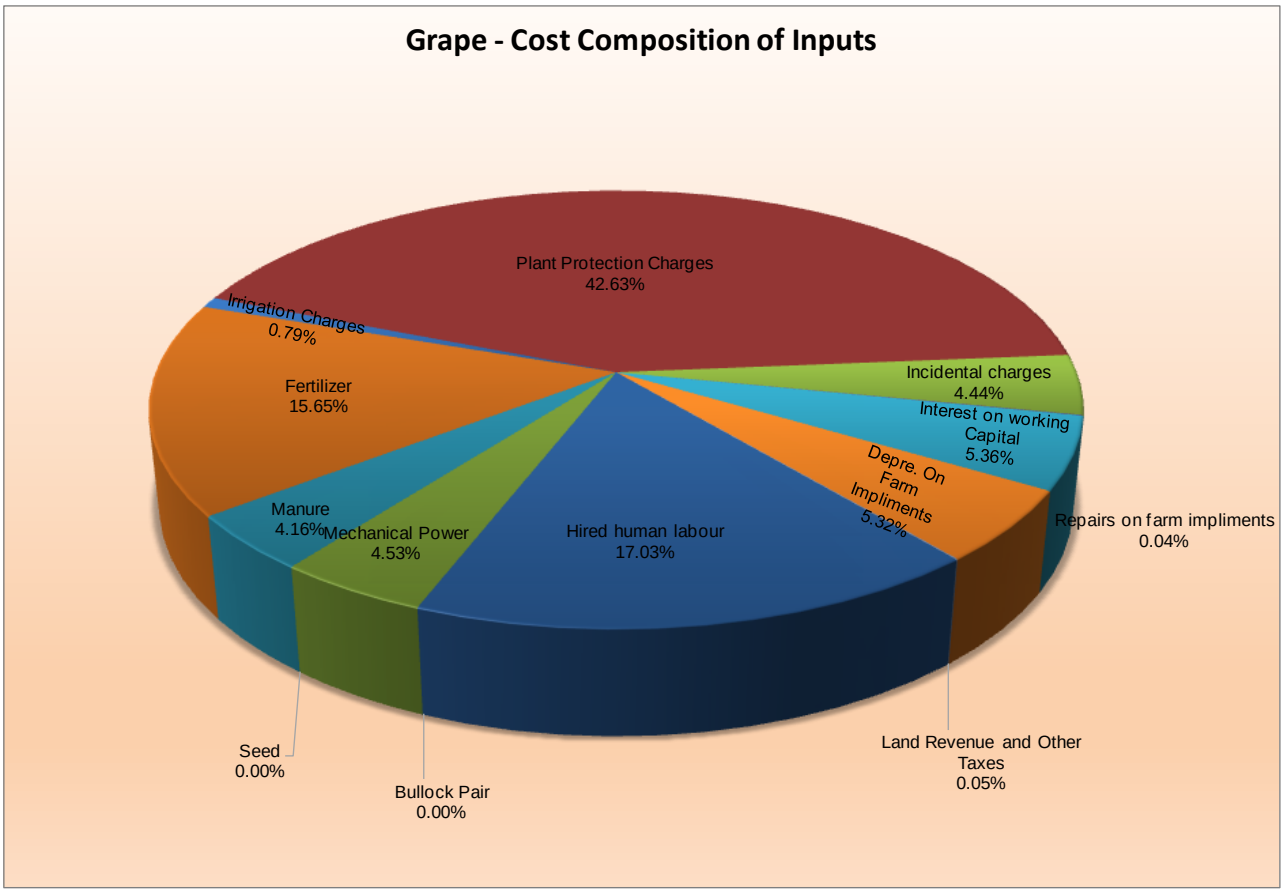
Graph III.2 : Cost composition of Input Costs for Green Chili:



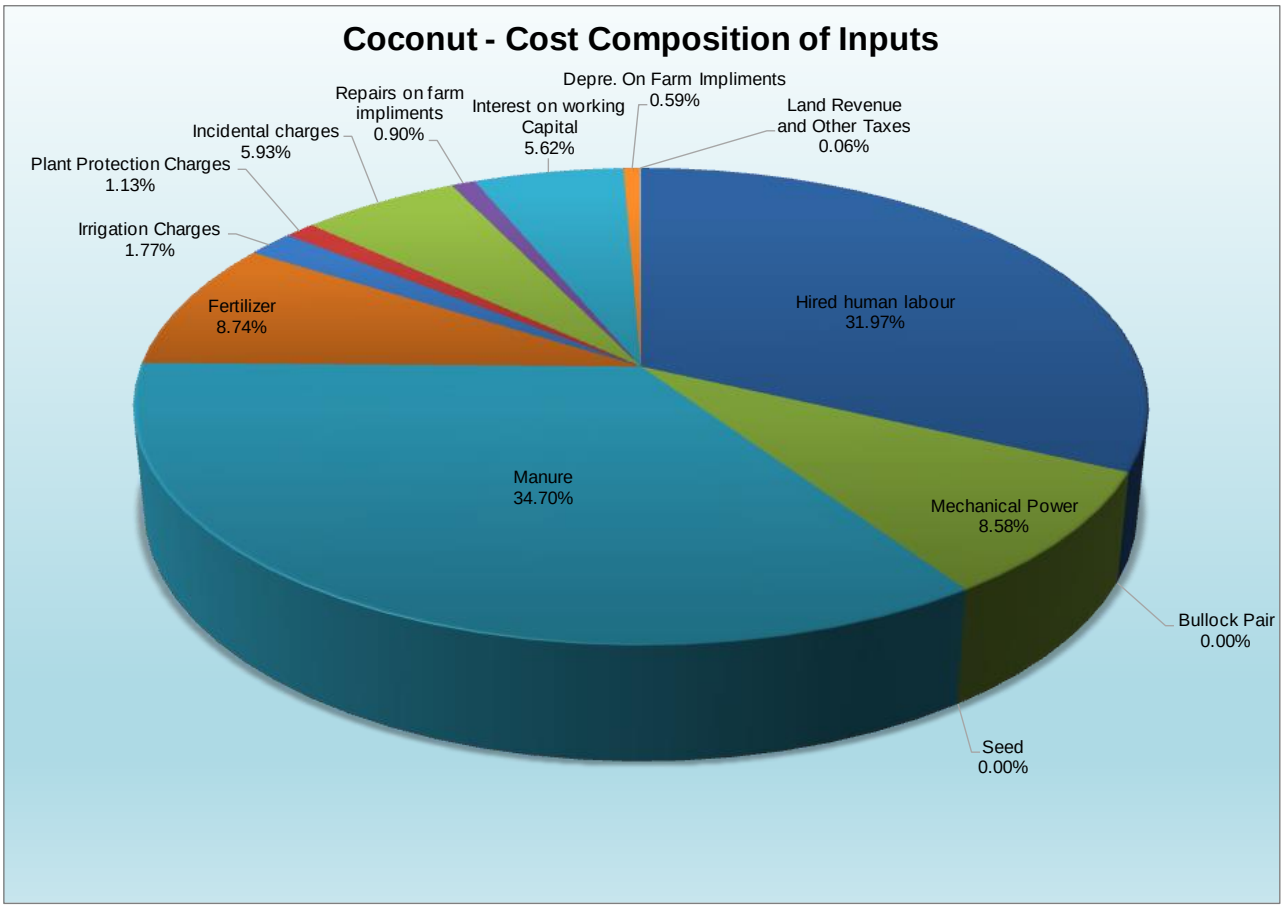
Graph III.3 : Cost composition of Input Costs for Tomato:



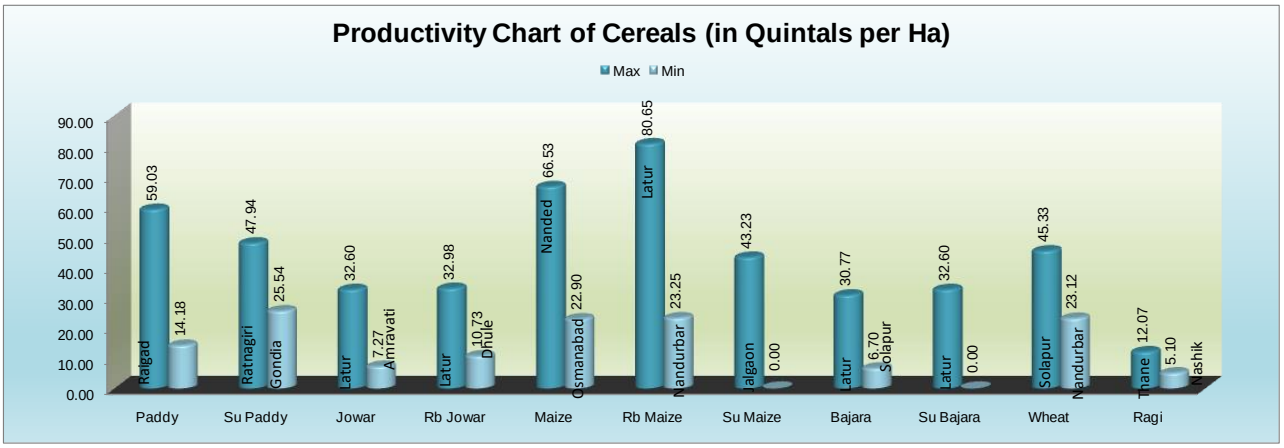
Graph III.4 : Cost composition of Input Costs for Grapes:



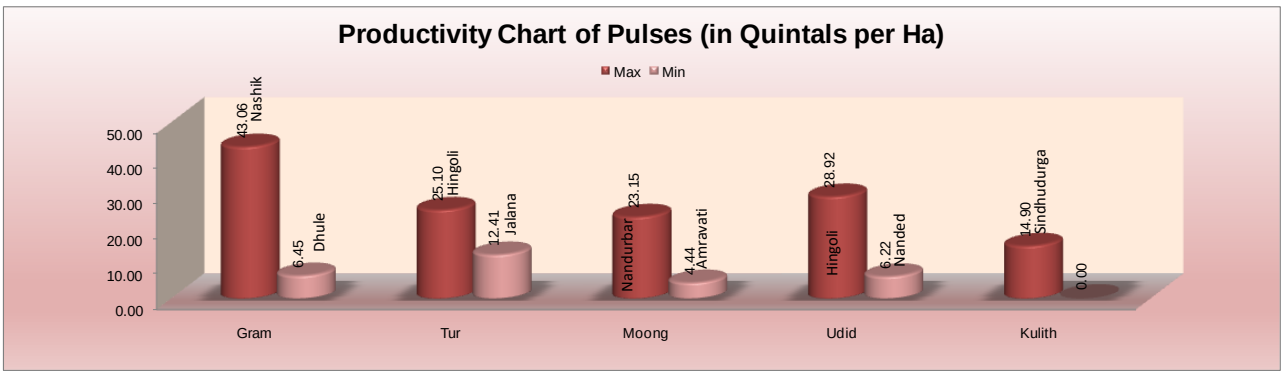
Graph III.5 : Cost composition of Input Costs for Coconut:



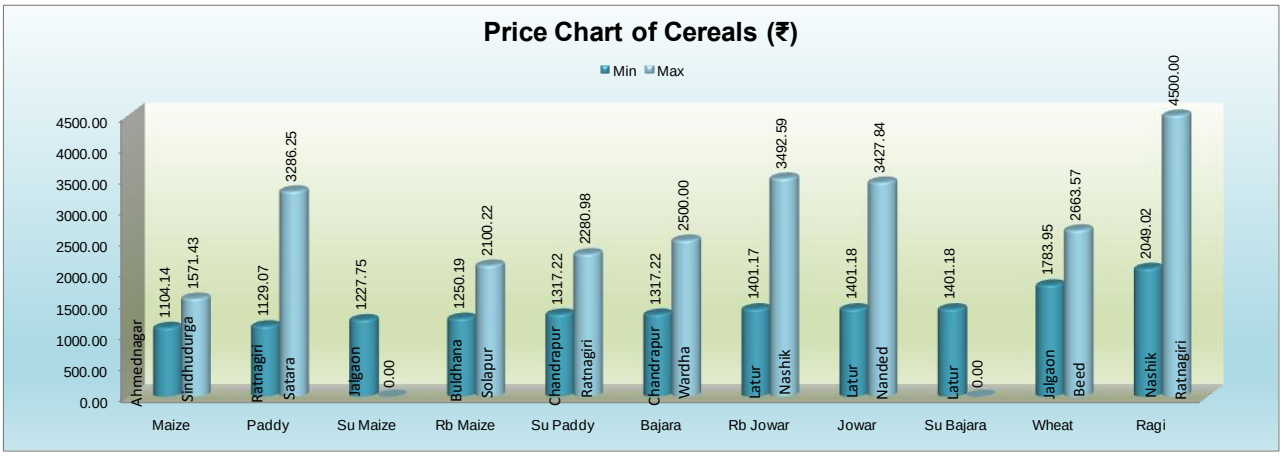
Graph III.6 Productivity of Cereals:



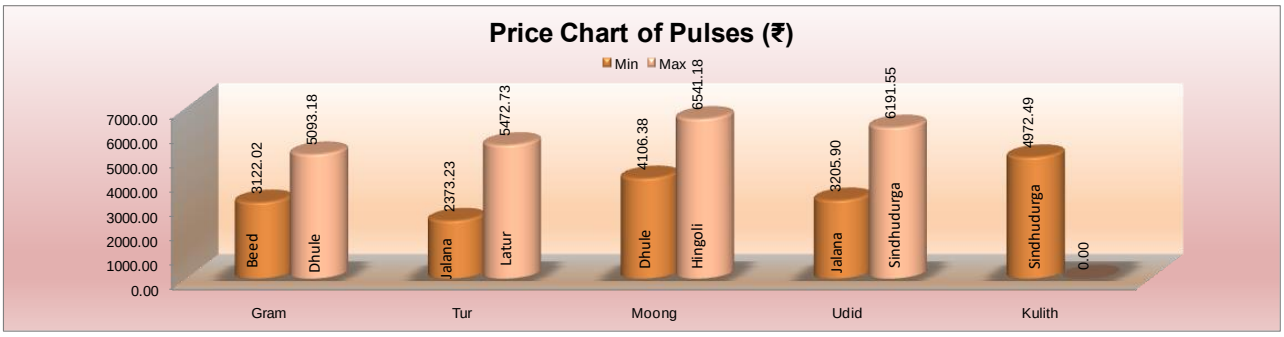
Graph III.7 Productivity of Pulses:



Graph III.8 Price Realisation Cereals:



Graph III.9 Price Realisation Pulses:



Crop Profiles

Multi-seasonal Crop wise Results

Volume I

Section A

Category: Cereals Crop: Bajra

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Pennisetum glaucum***
Local Name: Bajri
Harvesting Period: August (Kharif) and April-May (Summer)
Common Varieties (major) in the State: Mahico 204, Mahabeej, Ganga-Kaveri, Pioneer, NBH – 149, VBH – 4

No.	Districts	No.	Districts
Kharif		13	Parbhani
1	Akola	14	Pune
2	Aurangabad	15	Sangli
3	Beed	16	Satara
4	Buldhana	17	Solapur
5	Chandrapur	18	Wardha
6	Dhule	19	Washim
7	Hingoli	20	Yavatmal
8	Jalna	**Summer**	
9	Latur	1	Latur
10	Nanded		
11	Nashik		
12	Osmanabad		

Major findings of the Survey:

1. The working capital of Bajra ranges from ₹ 12,721.90 per ha. in Solapur to ₹ 47,441.70 per ha. in Akola.
2. Productivity of Bajra ranges from 6.70 quintals per ha. in Solapur to 30.77 quintals per ha. in Latur district (Kharif).
3. Price realization of Bajra ranges from ₹1,317.22 per quintal in Chandrapur to ₹2,500.00 per quintal in Wardha.
4. The contribution of cultivating Bajra (Sales realization – working capital-interest on working capital) ranges from ₹ (-)995.07 per ha. in Solapur to ₹ 28,811.31 per ha. in Jalna.
5. It is noteworthy that expenditure on hired labour and mechanical power constitutes more than 50% of the cost of cultivation of Bajra at nearly 59.88 per cent.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	2	8	4	2	20
Talukas	0	8	3	16	8	5	40
Villages	0	16	8	37	16	8	85
Farmer/Holdings	0	80	40	180	80	40	420

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha.)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha.)	56	24.00	68.77	0.62
Medium	(1.00 ha. – 2.00 ha.)	196	108.72	33.81	1.64
Large	(more than 2.00 ha.)	198	169.58	23.87	4.23
Total –	All classes	420	302.30	28.33	2.54

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	45.20	45.13	48.31	46.64
Female	49.45	63.41	67.60	63.30
Total	47.79	56.04	58.49	56.10

Cost of Cultivation for Bajra (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	27,562.40	24,862.04	23,383.10	24,246.79
Cost B	36,738.47	33,762.42	31,873.27	32,938.95
Cost C	41,315.55	36,869.49	33,911.54	35,563.16

Cost of Production of Bajra (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,745.38	1,396.54	1,253.65	1,338.17
Cost B	2,326.45	1,896.49	1,708.84	1,817.88
Cost C	2,616.29	2,071.02	1,818.12	1,962.71

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	31,953.33	32,661.18	31,271.39	31,825.36
By-product	2,378.75	2,047.19	2,087.69	2,096.23
Total	34,332.08	34,708.37	33,359.08	33,921.59

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha.(₹)
	Unit	Quantity			
Seed	Kg	1,758.90	3,11,563.00	302.30	1,030.64
Fertilizer	Kg	56,895.00	8,65,630.00	258.30	3,351.26
Manures	MT	505.50	7,13,600.00	141.58	5,040.26
Plant protection chemicals	L	109.30	1,19,040.00	72.30	1,646.47
Diesel (excluding irrigation)	₹	-	52,140.00	302.30	172.48
Repair & Maintenance of Machinery & Equipments	₹	-	15,382.78	302.30	50.89
Other Expenses	₹	-	1,51,761.00	302.30	502.02
Irrigation Charges	₹	-	2,08,445.37	302.30	689.53
Incidental Charges	₹	-	5,43,063.00	302.30	1,796.44

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			29	10	101	280	420
Average Household size			5	5	6	6	6
Principle source of income	Cultivation		29	10	100	278	417
	Livestock		5	4	13	44	66
	Other Agricultural Activities		1	0	1	10	12
	Other		0	0	4	5	9
Cultivated Area (ha.)	Own land	Irrigated	24	5	251	317	597
		Rainfed	30	24	101	315	470
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	14	8	22

Category: Cereals Crop: Maize

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Zea mays***
Local Name: Maka, Makai
Harvesting Period: June - September (Kharif), September - December (Rabi) and February – May (Summer)
Common Varieties (major) in the State:505, 525, 3396, 3401, 3651, African Tall, Ashwini, Ganga, Ganga Safed, Godrej, Hytech, Kaveri, Madhuri, Mahabij, NK – 2640, Pioneer, Royal Gold, Sugnadha, Sygenta, Tata, Varun.

No.	Districts	No.	Districts
Kharif		**Rabi**	
1	Ahmednagar	1	Ahmednagar
2	Aurangabad	2	Aurangabad
3	Beed	3	Buldhana
4	Buldhana	4	Dhule
5	Dhule	5	Jalgaon
6	Jalna	6	Jalna
7	Jalgaon	7	Latur
8	Latur	8	Nandurbar
9	Nanded	9	Nashik
10	Nandurbar	10	Pune
11	Nashik	11	Raigad
12	Osmanabad	12	Sangli
13	Pune	13	Solapur
14	Sangli	Summer	
15	Sindhudurg	1	Jalgaon

Major findings of the Survey:

1. The working capital of Maize ranges from ₹11,518.80 per ha. in Nashik (Rabi) to ₹ 60,789.21 per ha. in Nashik (Kharif).
2. The contribution of Maize ranges from ₹ 4,322.74 per ha. in Nandurbar (Rabi) to ₹ 85,496.81 per ha. in Latur (Rabi).
3. Productivity ranges from 22.90 quintals per ha. in Osmanabad (Kharif) to 80.65 quintals per ha. in Latur (Rabi).
4. The price realized ranges from ₹ 1,104.14 per quintal in Ahmednagar (Kharif) to ₹ 2,100.22 in Solapur (Rabi).
5. It is noteworthy that, major expenditure is incurred on hired labour and mechanical power at 56.94 % followerd bt Fertilizer with 12.17% of the percentage of average working capital of Maize.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	2	3	5	6	1	0	17
Talukas	4	10	22	19	4	0	59
Villages	8	22	46	38	8	0	122
Farmer/Holdings	40	100	220	180	40	0	580

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	134	72.38	73.65	0.73
Medium	(1.00 ha – 2.00 ha)	244	151.50	39.47	1.57
Large	(more than 2.00 ha)	202	260.00	29.55	4.36
Total –	All classes	580	483.88	35.53	2.35

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	33.67	39.50	23.64	32.15
Female	62.32	68.37	68.20	67.35
Total	48.82	55.69	51.44	52.66

Cost of Cultivation for Maize (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	24,580.16	29,125.35	37,835.06	33,125.40
Cost B	36,925.11	44,423.92	56,619.36	49,855.13
Cost C	42,269.13	49,511.05	60,170.13	54,155.16

Cost of Production of Maize (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	811.19	720.05	786.78	769.72
Cost B	1,218.60	1,098.27	1,177.40	1,158.45
Cost C	1,394.97	1,224.04	1,251.24	1,258.37

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	42,863.57	55,429.11	66,164.73	59,318.02
By-product	3,894.72	4,000.66	4,501.92	4,254.15
Total	46,758.29	59,429.77	70,666.65	63,572.18

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	11,570.00	11,00,120.00	483.88	2,273.54
Fertilizer	Kg	1,67,632.00	19,64,245.00	469.88	4,180.31
Manures	MT	774.50	11,27,450.00	213.70	5,275.85
Plant protection chemicals	L	473.35	5,53,870.00	210.20	2,634.97
Diesel (excluding irrigation)	₹	-	2,200.00	483.88	4.55
Repair & Maintenance of Machinery & Equipments	₹	-	24,874.68	483.88	51.41
Other Expenses	₹	-	7,250.00	483.88	14.98
Irrigation Charges	₹	-	4,54,774.05	483.88	939.85
Incidental Charges	₹	-	7,89,906.00	483.88	1,632.44

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			76	60	90	354	580
Average Household size			5	6	5	6	6
Principle source of income	Cultivation		76	60	88	340	564
	Livestock		4	0	20	27	51
	Other Agricultural Activities		0	0	2	1	3
	Other		1	1	12	4	18
Cultivated Area (ha.)	Own land	Irrigated	113	85	210	617	1026
		Rainfed	31	16	61	227	336
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Category: Cereals Crop: Paddy

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Oryza sativa***
Local Name: Bhat, Sal
Harvesting Period: June to September (Kharif) and May – June (Summer)
Common Varieties (major) in the State: Ambemohar, kali kusal, Indrayani, Pioneer, Jaysiram, Sonam, Kranti and Mahico

No.	Districts	No.	Districts
Kharif		13	Ratnagiri
1	Bhandara	14	Satara
2	Chandrapur	15	Sindhudurg
3	Dhule	16	Thane
4	Gadchiroli	**Summer**	
5	Gondia	1	Chandrapur
6	Kolhapur	2	Gondia
7	Nagpur	3	Palghar
8	Nandurbar	4	Raigad
9	Nashik	5	Ratnagiri
10	Palghar	6	Sindhudurg
11	Pune	7	Thane
12	Raigad		

Major findings of the Survey:

1. The working capital of Paddy ranges from ₹ 23,588.99 per ha. in Raigad (Kharif) to ₹ 85,064.10 per ha. in Ratnagiri (Summer).
2. The contribution of cultivating Paddy ranges from ₹ (-) 24,942.61 per ha. in Ratnagiri (Kharif) to ₹ 76,263.42 per ha. in Satara (Kharif).
3. Productivity ranges from 14.18 quintals per ha. in Raigad (Kharif) to 59.03 quintals per ha. in Kolhapur (Kharif).
4. The price realized ranges from ₹1,129.07 per quintal in Ratnagiri (Kharif) to ₹ 3,286.25 in Satara (Kharif).
5. It is noteworthy that, major expenditure is incurred on hired labour and Mechanical power constitutes at 48.33% followed by Manure and Fertilizer together with 28.01 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	5	3	3	0	0	5	16
Talukas	18	6	5	0	0	14	43
Villages	37	12	14	0	0	28	91
Farmer/Holdings	200	60	60	0	0	140	460

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	174	78.26	73.48	0.61
Medium	(1.00 ha – 2.00 ha)	186	145.28	50.20	1.56
Large	(more than 2.00 ha)	100	125.92	31.03	4.06
Total –	All classes	460	349.46	43.59	1.74

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	28.76	38.35	56.72	38.74
Female	60.39	70.07	77.71	68.42
Total	47.13	56.93	69.86	56.37

Cost of Cultivation for Paddy (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	55,518.77	38,935.53	35,006.16	41,233.41
Cost B	69,442.34	51,409.54	49,080.51	54,608.69
Cost C	85,906.69	58,376.77	52,849.57	62,550.37

Cost of Production of Paddy (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,709.08	1,173.19	933.70	1,192.36
Cost B	2,137.70	1,549.06	1,309.09	1,579.14
Cost C	2,644.53	1,758.99	1,409.62	1,808.80

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	68,284.09	65,988.00	76,653.85	70,345.40
By-product	7,333.25	3,298.80	2,795.82	4,021.06
Total	75,617.34	69,286.80	79,449.67	74,366.46

Inputs under consideration for valuation of Gross Value Added:

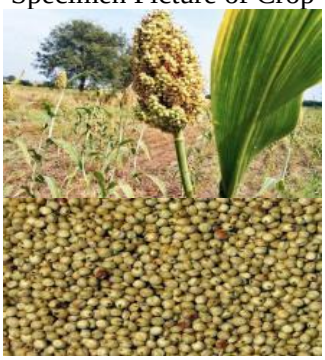
Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	12,456.50	9,26,585.00	349.46	2,651.48
Fertilizer	Kg	1,42,124.00	22,05,811.00	349.06	6,319.29
Manures	MT	1,042.50	16,18,450.00	183.80	8,805.50
Plant protection chemicals	L	480.43	4,56,795.00	210.14	2,173.77
Diesel (excluding irrigation)	₹	-	78,603.00	349.46	224.93
Repair & Maintenance of Machinery & Equipments	₹	-	24,470.05	349.46	70.02
Other Expenses	₹	-	92,600.00	349.46	264.98
Irrigation Charges	₹	-	2,02,654.92	349.46	579.91
Incidental Charges	₹	-	10,82,354.00	349.46	3,097.22

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			14	144	146	156	460
Average Household size			6	6	5	6	6
Principle source of income	Cultivation		14	131	139	136	420
	Livestock		0	13	19	1	33
	Other Agricultural Activities		0	4	4	1	9
	Other		2	54	7	0	63
Cultivated Area (ha.)	Own land	Irrigated	17	76	141	209	443
		Rainfed	9	140	161	48	359
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			1	7	9	11	28

Category: Cereals Crop: Jowar

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Sorghum vulgare***
Local Name: Jwari
Harvesting Period: September to November (Kharif) and February-March (Rabi)
Common Varieties (major) in the State:7851, 9, 51, Aishwarya, Bhakti, CS – V15, CSH – 1, CS – 23, Eagle, Goal, GFS – 3, Golden, Goal – 45, HC – 260, HCL – 136, Hytech, Bhagyashri, Kaveri, Mahi – 1, Mahico, Maldandi, Moti, Nuzividu, Pioneer, Pl - 4, Pl - 5, Prabhat 71, Pradhan, Pusachari – 9, Pusachari – 23, PVK – 400, Rajani, Rani, Ruchira, SPV – 669, Vaibhav, Yashoda.

No.	Districts	No.	Districts
Kharif		2	Aurangabad
1	Akola	3	Beed
2	Amravati	4	Buldhana
3	Beed	5	Dhule
4	Buldhana	6	Jalgaon
5	Dhule	7	Jalna
6	Hingoli	8	Latur
7	Jalgaon	9	Nanded
8	Latur	10	Nandurbar
9	Nanded	11	Nashik
10	Nandurbar	12	Osmanabad
11	Pune	13	Parbhani
12	Sangli	14	Sangli
Rabi		15	Satara
1	Ahmednagar	16	Solapur

Major findings of the Survey:

1. The working capital for Jowar ranges from ₹11,912.24 per ha. in Nashik (Rabi) to ₹ 35,774.61 per ha. in Hingoli (Kharif).
2. The productivity ranges from 7.27 quintals per ha. in Amravati (Kharif) to 32.98 quintals per ha. in Latur (Rabi) with average productivity of 20.84 quintals per ha.
3. The price realization for Jowar ranges from ₹ 1,401.17 per quintal in Latur (Rabi) to ₹ 3,492.59 per quintal in Buldhana and Nashik of Rabi season with average rate of 2,531.89 per quintal.
4. The contribution of cultivating Jowar ranges from ₹ (-)1,221.32 per ha. in Amravati (Kharif) to ₹ 90,904.82 per quintal in Solapur (Rabi).
5. The expenditure in connection with Hired labour and Mechanical power constitutes 53.25 % followed by Fertilizers with 11.65 % of the average working capital of Jowar.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	5	8	3	0	20
Talukas	0	11	18	23	10	0	62
Villages	0	20	35	45	16	0	116
Farmer/Holdings	0	100	160	220	80	0	560

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	80	46.10	73.52	0.78
Medium	(1.00 ha – 2.00 ha)	218	152.60	40.56	1.73
Large	(more than 2.00 ha)	262	263.40	22.09	4.55
Total –	All classes	560	462.10	28.33	2.91

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	83.93	67.46	75.30	72.85
Female	92.84	76.35	84.50	82.51
Total	89.69	72.35	80.62	78.41

Cost of Cultivation for Jowar (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	32,283.89	29,646.40	27,748.44	28,827.67
Cost B	45,067.35	42,421.46	40,470.08	41,573.12
Cost C	46,034.81	45,139.68	41,869.47	43,364.94

Cost of Production of Jowar (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,915.43	1,462.20	1,206.10	1,341.38
Cost B	2,673.88	2,092.28	1,759.05	1,934.44
Cost C	2,731.28	2,226.35	1,819.87	2,017.82

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	48,215.18	50,667.50	50,185.94	50,148.36
By-product	8,010.85	7,180.87	8,545.56	8,041.55
Total	56,226.03	57,848.36	58,731.50	58,189.91

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	6,871.50	10,24,108.33	461.70	2,218.13
Fertilizer	Kg	95,876.00	15,01,105.00	450.50	3,332.09
Manures	MT	336.25	5,16,850.00	112.90	4,577.95
Plant protection chemicals	L	132.65	1,30,630.00	84.80	1,540.45
Diesel (excluding irrigation)	₹	-	4,350.00	462.10	9.41
Repair & Maintenance of Machinery & Equipments	₹	-	11,347.26	462.10	24.56
Other Expenses	₹	-	1,10,645.00	462.10	239.44
Irrigation Charges	₹	-	1,77,399.83	462.10	383.90
Incidental Charges	₹	-	8,45,986.00	462.10	1,830.74

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			40	130	181	209	560
Average Household size			5	7	6	5	6
Principle source of income	Cultivation		38	127	179	198	542
	Livestock		0	0	8	4	12
	Other Agricultural Activities		6	0	2	3	11
	Other		0	0	17	2	19
Cultivated Area (ha.)	Own land	Irrigated	27	78	487	338	931
		Rainfed	49	176	163	231	618
	Leased land	Irrigated	0	2	52	0	54
		Rainfed	0	0	28	0	28
Awareness of Minimum Support price (Yes)			0	0	16	0	16

Category: Oilseeds Crop: Groundnut

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Arachis hypogaea***
Local Name: *Bhuimug*
Harvesting Period: September-December (Kharif) and April-May (Summer)
Common Varieties (major) in the State: 305, Dhanlaxmi, JL 24, Kalu Balu, Laxmi, Local, Mahabeej, Phule Pragati, SB11, SN55, TA24, TAG24, Vaishali.

No.	Districts	No.	Districts
Kharif		**Summer**	
1	Akola	1	Akola
2	Beed	2	Sindhudurg
3	Dhule	3	Washim
4	Kolhapur	4	Beed
5	Nanded	5	Yavatmal
6	Nashik		
7	Osmanabad		
8	Sangli		
9	Satara		
10	Wardha		
11	Yavatmal		

Major findings of the Survey:

1. Working capital for Groundnut ranges from ₹ 24,962.62 per ha. in Dhule to ₹ 1,28,295.87 per ha. in Nanded.
2. The price realization for Groundnut ranges from ₹ 3,667.51 per quintal in Dhule to ₹ 4,731.00 per quintal in Beed (Summer) and Nanded district.
3. The productivity of Groundnut ranges from 11.87 quintals per ha. in Dhule to 28.63 quintals per ha. in Sindhudurg (Summer).
4. The contribution of cultivating Groundnut ranges from ₹ (-)31387.04 per ha. in Nanded to ₹ 76,691.68 per ha. in Akola (Kharif).
5. Major expenditure is incurred on hired labour with 37.66% followed by Seed with 19.45 % of the average working capital of Groundnut.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	3	2	3	3	1	13
Talukas	2	6	3	7	10	2	30
Villages	4	12	8	15	20	4	63
Farmer/Holdings	20	60	40	80	100	20	320

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	72	17.33	34.33	0.70
Medium	(1.00 ha – 2.00 ha)	185	56.45	20.07	1.52
Large	(more than 2.00 ha)	63	40.48	20.06	3.20
Total –	All classes	320	114.26	21.42	1.67

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	59.31	23.37	13.00	23.41
Female	67.74	84.67	87.07	82.34
Total	66.50	74.95	62.01	70.66

Cost of Cultivation for Groundnut (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	63,635.30	58,491.88	49,723.78	56,165.63
Cost B	86,013.16	78,722.95	65,974.93	75,312.30
Cost C	91,520.95	84,280.08	71,173.79	80,735.02

Cost of Production of Groundnut (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,421.08	2,509.02	2,417.80	2,464.47
Cost B	3,272.47	3,376.83	3,208.01	3,304.60
Cost C	3,482.02	3,615.21	3,460.80	3,542.54

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,15,844.20	1,04,480.96	83,643.28	98,822.07
By-product	1,274.09	1142.60	463.69	922.02
Total	1,17,118.29	1,05,623.56	84,106.97	99,744.09

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	11,071.00	11,99,326.00	114.26	10,496.46
Fertilizer	Kg	41,645.00	5,92,450.00	100.06	5,920.95
Manures	MT	454.00	6,11,570.00	37.50	16,308.53
Plant protection chemicals	L	385.11	1,47,082.00	47.20	3,116.14
Diesel (excluding irrigation)	₹	-	18,200.00	114.26	159.29
Repair & Maintenance of Machinery & Equipments	₹	-	9,469.84	114.26	82.88
Other Expenses	₹	-	28,845.00	114.26	252.45
Irrigation Charges	₹	-	2,51,023.97	114.26	2,196.95
Incidental Charges	₹	-	2,74,945.00	114.26	2,406.31

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			11	46	106	157	320
Average Household size			6	5	5	5	5
Principle source of income	Cultivation		11	38	99	149	297
	Livestock		0	0	6	7	13
	Other Agricultural Activities		0	0	1	0	1
	Other		0	0	10	7	17
Cultivated Area (ha.)	Own land	Irrigated	15	64	159	222	459
		Rainfed	0	0	45	30	75
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			1	3	6	5	15

Category: Vegetables Crop: Beans

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Phaseolus vulgaris***
Local Name: Val, Papada
Harvesting Period: March - August
Common Varieties (major) in the State: Jade, Maxibel, Contender, HFG-119, Kulthi, Pusa Phalguni, Amba, Kalptaru, FS-277, Durgapura.

No.	Districts	No.	Districts
Kharif		13	Pune
1	Ahmednagar	14	Ratnagiri
2	Buldhana	15	Solapur
3	Chandrapur	16	Satara
4	Gadchiroli	17	Thane
5	Gondia	18	Wardha
6	Jalna	19	Washim
7	Kolhapur	**Rabi**	
8	Latur	1	Dhule
9	Nagpur	2	Nandurbar
10	Nashik		
11	Osmanabad		
12	Palghar		

Major findings of the Survey:

1. The working capital of Beans ranges from ₹ 15516.39 per ha. in Ahmednagar to ₹ 171121.73 per Ha. in Gondia.
2. Productivity of Beans ranges from 7.71 quintals per ha. in Ratnagiri to 223.53 quintals per ha. in Nashik.
3. Price realization of Beans ranges from ₹ 930.99 per quintal in Nandurbar (Rabi) to 4347.10 per quintal in Satara.
4. The contribution of cultivating Beans (Sales realization – working capital-interest on working capital) ranges from ₹ 12,830.45 per ha. in Ratnagiri to ₹ 4,00,009.77 per ha. in Dhule (Rabi).
5. Irrigation charges in case of Beans are 1.92% which are negligible. (Expenses in connection with Manure and Fertilizer contributes 21.35 % of the average working capital.)

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	3	4	4	3	2	5	21
Talukas	5	8	8	6	5	11	43
Villages	9	19	16	12	8	20	84
Farmer/Holdings	60	80	80	60	40	100	420

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	95	24.52	38.64	0.67
Medium	(1.00 ha – 2.00 ha)	199	75.88	22.73	1.68
Large	(more than 2.00 ha)	126	66.28	15.62	3.37
Total –	All classes	420	166.68	20.28	1.96

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	22.89	9.85	14.29	13.07
Female	62.72	66.63	55.83	61.87
Total	46.88	38.23	37.83	39.41

Cost of Cultivation for Beans (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	93,121.84	97,827.46	1,06,962.52	1,00,767.77
Cost B	1,32,463.66	1,45,169.33	1,62,238.67	1,50,087.81
Cost C	1,55,775.24	1,74,924.86	1,86,411.87	1,76,675.58

Cost of Production of Beans (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	669.70	724.09	733.37	719.98
Cost B	952.63	1,074.49	1,112.36	1,072.38
Cost C	1,120.28	1,294.73	1,278.10	1,262.34

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,34,348.37	282223.09	329275.83	293890.76
By-product	0.00	39.54	425.47	187.19
Total	234348.37	282262.63	329701.30	294077.95

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	2,338.00	7,87,520.00	166.68	4,724.74
Fertilizer	Kg	1,10,660.50	22,05,314.00	166.08	13,278.62
Manures	MT	566.97	10,82,255.00	76.71	14,108.40
Plant protection chemicals	L	4,263.53	13,15,495.00	159.54	8,245.55
Diesel (excluding irrigation)	₹	-	21,950.00	166.68	131.69
Repair & Maintenance of Machinery & Equipments	₹	-	7,499.51	166.68	44.99
Other Expenses	₹	-	94,272.00	166.68	565.59
Irrigation Charges	₹	-	3,05,027.79	166.68	1830.02
Incidental Charges	₹	-	19,31,880.00	166.68	11,590.35

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			33	75	118	194	420
Average Household size			5	5	5	6	5
Principle source of income	Cultivation		32	75	118	191	416
	Livestock		2	1	14	27	44
	Other Agricultural Activities		0	0	0	2	2
	Other		2	6	4	2	14
Cultivated Area (ha.)	Own land	Irrigated	62	128	185	367	742
		Rainfed	9	2	40	29	80
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			2	0	5	13	20

Category: Vegetables Crop: Cauliflower

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Brassica oleracea var. botrytis***
Local Name: Flower, Phul Gobi
Harvesting Period: October-November (Kharif) and January-March (Rabi)
Common Varieties (major) in the State: 93Y30 Mahico, Syngenta15-22, Hisar-1, Snowball, Golden Maker, Shubhra.

No.	Districts	No.	Districts
Kharif		13	Parbhani
1	Akola	14	Pune
2	Aurangabad	15	Sangli
3	Buldhana	16	Satara
4	Chandrapur	17	Yavatmal
5	Dhule	**Rabi**	
6	Hingoli	1	Dhule
7	Kolhapur		
8	Latur		
9	Nanded		
10	Nandurbar		
11	Nashik		
12	Osmanabad		

Major findings of the Survey:

1. The working capital of Cauliflower ranges from ₹42,550.65 per ha. in Nanded to ₹1,53,668.16per ha. in Aurangabad.
2. Price realization for Cauliflower ranges from ₹707.10 per quintal in Yavatmal to ₹ 1,877.27 per quintal in Akola with average rate of ₹ 1,045.61 per quintal.
3. The productivity of Cauliflower varies from district to district with range of 74.37 quintals per ha. in Akola to 369.93 quintals per ha. in Pune with average productivity 222.65 quintals per ha.
4. The contribution of cultivating Cauliflower ranges from ₹ 15,172.07 per ha. in Buldhana to ₹ 2,47,999.61 per ha. in Chandrapur.
5. The contribution of incidental charges in case of Cauliflower is 10.60% whereas Seed and Fertilizer expenses contribute about 33.92% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	3	6	3	1	17
Talukas	0	8	10	11	5	2	36
Villages	0	17	13	23	13	4	70
Farmer/Holdings	0	80	80	120	60	20	360

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	54	21.10	31.31	1.25
Medium	(1.00 ha – 2.00 ha)	183	80.64	6.83	6.46
Large	(more than 2.00 ha)	123	72.22	9.92	5.92
Total –	All classes	360	173.96	8.80	5.49

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	60.92	40.19	42.63	45.07
Female	77.50	76.84	85.22	79.73
Total	71.20	62.69	69.98	66.70

Cost of Cultivation for Cauliflower (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,05,787.85	1,04,991.73	93,252.99	1,00,214.92
Cost B	1,48,218.00	1,42,818.81	1,29,664.11	1,38,012.48
Cost C	1,63,727.48	1,56,733.12	1,38,165.22	1,49,872.96

Cost of Production of Cauliflower (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	457.68	458.39	420.42	442.85
Cost B	641.25	623.55	584.58	609.88
Cost C	708.36	684.30	622.90	662.29

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,48,130.33	2,20,381.39	2,12,841.04	2,20,616.72
By-product	142.56	320.56	65.08	192.91
Total	2,48,272.89	2,20,701.95	2,12,906.12	2,20,809.63

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	34,10,272.30	33,70,390.00	173.96	19,374.51
Fertilizer	Kg	1,13,770.00	22,16,084.00	173.16	12,797.90
Manures	MT	659.40	6,73,800.00	71.66	9,402.74
Plant protection chemicals	L	624.89	14,32,118.00	173.16	8,270.49
Diesel (excluding irrigation)	₹	-	0.00	173.96	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	7,162.96	173.96	41.18
Other Expenses	₹	-	3,89,710.00	173.96	2,240.23
Irrigation Charges	₹	-	2,82,173.22	173.96	1,622.06
Incidental Charges	₹	-	16,39,860.00	173.96	9,426.65

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			14	9	108	229	360
Average Household size			6	5	5	6	6
Principle source of income	Cultivation		14	9	106	229	358
	Livestock		2	0	3	24	29
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	1	3	4
Cultivated Area (ha.)	Own land	Irrigated	19	12	221	493	746
		Rainfed	8	0	8	53	69
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	224	0	112	826	1,162
Awareness of Minimum Support price (Yes)			0	0	6	31	37

Category: Vegetables Crop: Capsicum

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Capsicum annuum***
Local Name: Shimla Mirchi, Dhobali Mirchi
Harvesting Period: October-February (Kharif) and January-March (Rabi)
Common Varieties (major) in the State: Pusa Jwala, Pusa Sada bahar, Arka Mohini, Indra, Ruby King and World Beater.

No.	Districts
Kharif	
1	Akola
2	Aurangabad
3	Gondia
Rabi	
1	Beed
2	Thane

Major findings of the Survey:

1. The working capital of Capsicum ranges from ₹ 53,410.01 per ha. in Gondia (Kharif) to ₹ 1,78,995.35 per ha. in Thane (Rabi).
2. Price realization for Capsicum ranges from ₹2,095.02 per quintal in Akola to ₹2,555.09 per quintal in Gondia with average rate of ₹2,307.77 per quintal.
3. The productivity of Capsicum varies from district to district with range of 129.55 quintals per ha. in Aurangabad to 221.54 quintals per ha. in Thane (Rabi).
4. The contribution of cultivating Capsicum ranges from ₹1,57,145.67 per ha. in Aurangabad to ₹4,90,643.60 per ha. in Gondia.
5. The expenditure incurred under the heads hired labour and mechanical power constitutes 50.81% followed by Seed with 19.12% of the average working capital of Capsicum.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	0	0	2	1	1	5
Talukas	2	0	0	4	3	2	11
Villages	5	0	0	8	4	4	21
Farmer/Holdings	20	0	0	40	20	20	100

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	33	8.90	43.89	0.61
Medium	(1.00 ha – 2.00 ha)	43	19.52	28.79	1.58
Large	(more than 2.00 ha)	24	11.80	13.59	3.62
Total –	All classes	100	40.22	23.00	1.75

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	51.86	33.19	51.89	45.65
Female	64.87	74.40	86.90	77.76
Total	56.56	57.00	72.40	62.48

Cost of Cultivation for Capsicum (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,82,150.25	1,15,940.84	1,52,786.24	1,41,401.79
Cost B	2,62,593.45	1,75,114.26	2,09,112.28	2,04,446.47
Cost C	3,01,351.87	1,98,182.90	2,33,387.71	2,31,341.05

Cost of Production of Capsicum (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	916.93	738.87	1,025.53	863.13
Cost B	1,321.88	1,115.97	1,403.60	1,247.96
Cost C	1,516.99	1,262.99	1,566.54	1,412.13

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	4,71,797.75	3,48,127.05	3,28,845.76	3,69,836.40
By-product	0.00	0.00	0.00	0.00
Total	4,71,797.75	3,48,127.05	3,28,845.76	3,69,836.40

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	6,21,240.00	10,27,055.00	40.22	25,535.93
Fertilizer	Kg	37,085.00	4,88,315.00	39.98	12,213.98
Manures	MT	52.00	80,800.00	11.60	6,965.52
Plant protection chemicals	L	509.28	3,47,570.00	40.06	8,676.24
Diesel (excluding irrigation)	₹	-	0.00	40.22	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	2,520.58	40.22	62.67
Other Expenses	₹	-	2,78,500.00	40.22	6,924.42
Irrigation Charges	₹	-	1,86,042.52	40.22	4,625.62
Incidental Charges	₹	-	3,21,731.00	40.22	7,999.28

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	10	7	81	100
Average Household size			6	6	5	6	6
Principle source of income	Cultivation		2	10	7	81	100
	Livestock		0	1	0	5	6
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	1	1
Cultivated Area (ha.)	Own land	Irrigated	4	5	7	158	175
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	4	4

Category: Vegetables Crop: Brinjal

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Solanum melongena***
Local Name: *Vangi, Regan, Baingan*
Harvesting Period: November-February (Kharif) and February-April (Rabi)
Common Varieties (major) in the State: Mahico, F1 Hybrid, Vaishali, Indo American, Kaveri 474, Sun grow hybrid, Panchganga, Shirgaon kata, Kalpatru, Hirawakata, Heera 10, ankur Vijay, 1097

No.	Districts	No.	Districts
Kharif		13	Pune
1	Amravati	14	Raigad
2	Buldhana	15	Sangli
3	Chandrapur	16	Satara
4	Dhule	17	Sindhudurg
5	Gadchiroli	18	Solapur
6	Hingoli	19	Thane
7	Jalgaon	**Rabi**	
8	Nagpur	1	Kolhapur
9	Nashik	2	Nandurbar
10	Osmanabad	3	Ratnagiri
11	Palghar		
12	Parbhani		

Major findings of the Survey:

1. Working Capital of Brinjal ranges from ₹ 46,454.74 per ha. in Nandurbar to ₹ 2,13,034.45 per ha. in Kolhapur.
2. The productivity of Brinjal ranges from 90.44 quintals per ha. in Thane district to 311.35 quintals per ha. in Sindhudurg.
3. The price realized for Brinjal ranges from ₹ 764.45 per quintal in Gadchiroli to ₹ 3,074.81 per quintal in Hingoli.
4. The contribution of cultivating Brinjal ranges from ₹(-)31166.22 per ha. in Buldhana to ₹ 2,50,986.81 per ha. in Solapur.
5. The expenditure under the head Incidental charges constitutes 12.07 % of the average working capital of Brinjal. (Fertilizer and Plant Protection Chemicals contribute 24.04% of the average working capital.)

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	5	5	4	3	2	3	22
Talukas	10	10	9	6	5	5	45
Villages	19	20	17	12	7	12	87
Farmer/Holdings	100	100	80	60	40	60	440

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	135	37.17	38.13	0.72
Medium	(1.00 ha – 2.00 ha)	190	61.12	19.67	1.64
Large	(more than 2.00 ha)	115	49.20	12.51	3.42
Total –	All classes	440	147.49	18.40	1.82

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	22.12	19.44	13.89	18.60
Female	66.08	67.46	65.32	66.33
Total	50.77	55.29	56.73	55.05

Cost of Cultivation for Brinjal (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,25,496.65	1,18,862.16	1,12,260.92	118332.21
Cost B	1,65,764.96	1,57,945.95	1,53,161.66	158320.62
Cost C	1,88,193.13	1,86,465.25	1,81,558.00	185263.78

Cost of Production of Brinjal (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	649.22	638.58	609.63	631.85
Cost B	857.53	848.56	831.74	845.38
Cost C	973.56	1,001.78	985.94	989.24

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,38,997.82	2,32,028.83	2,43,067.95	2,37,467.61
By-product	0.00	0.00	0.00	0.00
Total	2,38,997.82	2,32,028.83	2,43,067.95	2,37,467.61

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	13,68,588.25	13,86,952.00	147.49	9,403.57
Fertilizer	Kg	90,788.00	20,13,527.00	144.53	13,931.36
Manures	MT	2,664.30	10,81,225.00	71.09	15,209.67
Plant protection chemicals	L	1,720.99	20,45,875.00	130.13	15,721.54
Diesel (excluding irrigation)	₹	-	85,526.00	147.49	579.87
Repair & Maintenance of Machinery & Equipments	₹	-	9,974.76	147.49	67.63
Other Expenses	₹	-	1,39,490.00	147.49	945.75
Irrigation Charges	₹	-	3,00,471.84	147.49	2037.21
Incidental Charges	₹	-	17,47,194.00	147.49	11,846.03

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			24	48	146	222	440
Average Household size			5	5	5	5	5
Principle source of income	Cultivation		23	46	145	203	417
	Livestock		3	9	29	11	52
	Other Agricultural Activities		2	2	3	0	7
	Other		24	6	16	5	51
Cultivated Area (ha.)	Own land	Irrigated	52	54	261	368	735
		Rainfed	0	7	13	38	57
	Leased land	Irrigated	0	0	0	9	9
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	5	5

Category: Vegetables Crop: Cucumber

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Brassica oleracea var. botrytis***
Local Name: Kakadi, Khira
Harvesting Period: February-April (Rabi) and February-May (Summer)
Common Varieties (major) in the State: Ashley, Straight-8, Phule-Shubhangi, GVS – 612, Syngenta

No.	Districts	No.	Districts
Rabi		13	Parbhani
1	Ahmednagar	14	Pune
2	Amravati	15	Raigad
3	Aurangabad	16	Sangli
4	Beed	17	Satara
5	Buldhana	18	Sindhudurg
6	Dhule	19	Thane
7	Latur	20	Yavatmal
8	Nagpur	**Summer**	
9	Nanded	1	Hingoli
10	Nandurbar		
11	Nashik		
12	Osmanabad		

Major findings of the Survey:

1. The working capital of Cucumber ranges from ₹ 20133.88 per ha. in Latur to ₹113300.95 per ha. in Thane.
2. Productivity of Cucumber ranges from 49.37 quintals per ha. in Dhule to 355.88 quintals per ha. in Nandurbar district.
3. Price realization of Cucumber ranges from ₹ 1111.71 per quintal in Nandurbar to ₹ 2524.57 per quintal in Dhule.
4. The contribution of cultivating Cucumber (Sales realization – working capital-interest on working capital) ranges from ₹ 15909.97 per ha. in Beed to ₹ 349718.28 per ha. in Nandurbar.
5. It is noteworthy that expenditure in connection with hired labour is about 41.91 % followed by Fertilizers with 15.68% of the average cost of cultivation of Cucumber.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	3	3	4	7	3	1	21
Talukas	7	6	8	13	6	2	42
Villages	19	12	15	28	15	5	94
Farmer/Holdings	60	60	80	140	60	20	420

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	147	39.45	42.01	0.64
Medium	(1.00 ha – 2.00 ha)	162	68.26	26.29	1.6
Large	(more than 2.00 ha)	111	47.10	10.72	3.96
Total –	All classes	420	154.81	19.52	1.89

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	28.89	37.32	27.22	31.79
Female	51.37	69.45	66.81	62.95
Total	42.66	57.98	54.02	51.80

Cost of Cultivation for Cucumber (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	68,103.37	55,674.01	53,580.92	58,204.43
Cost B	1,05,772.56	85,081.71	73,428.97	86,808.81
Cost C	1,37,489.00	1,00,957.04	90,022.39	1,06,939.23

Cost of Production of Cucumber (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	390.09	420.62	725.19	464.41
Cost B	605.85	642.80	993.82	692.64
Cost C	787.52	762.74	1,218.41	853.27

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,24,742.70	1,75,405.93	1,18,087.15	1,70,538.76
By-product	0.00	0.00	0.00	0.00
Total	2,24,742.70	1,75,405.93	1,18,087.15	1,70,538.76

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	1,507.58	4,75,614.00	154.81	3,072.28
Fertilizer	Kg	60,310.00	12,59,425.00	145.01	8,685.21
Manures	MT	544.37	5,45,000.00	44.80	12,165.18
Plant protection chemicals	L	29,620.20	8,02,892.00	151.11	5,313.37
Diesel (excluding irrigation)	₹	--	0.00	154.81	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	4,481.15	154.81	28.95
Other Expenses	₹	--	10,13,869.00	154.81	6,549.20
Irrigation Charges	₹	--	4,18,511.19	154.81	2,703.42
Incidental Charges	₹	--	7,52,725.00	154.81	4,862.31

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			51	19	99	251	420
Average Household size			5	5	5	6	6
Principle source of income	Cultivation		49	19	99	228	395
	Livestock		0	0	6	5	11
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	130	23	163	441	757
		Rainfed	7	2	9	18	36
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	3	4	38	45

Category: Vegetables Crop: Pumpkin

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cucurbita pepo***
Local Name: Dangar, Bhopla, kaddu
Harvesting Period: September-January (Kharif) and September-October (Rabi)
Common Varieties (major) in the State: Suvarna, Saras, Arkachandan, Ambili and Suraj.

No.	Districts
Kharif	
1	Akola
2	Aurangabad
Rabi	
1	Beed

Major findings of the Survey:

1. The working capital of Pumpkin is highest at ₹ 78,650.43 per ha. in Akola and lowest at ₹ 1,24,451.25 per ha. in Aurangabad.
2. The price realization of Pumpkin ranges from ₹ 664.94 per quintal in Akola to ₹ 752.53 per quintal in Aurangabad.
3. The productivity of Pumpkin ranges from 400.00 quintals per ha. in Beed (Rabi) to 550.00 quintals per ha. in Akola (Kharif) with average productivity of 484.76 quintals per ha.
4. The contribution of cultivating Pumpkin ranges from ₹ 1,73,312.83 per ha. in Beed (Rabi) to ₹ 2,81,963.76 per ha. in Akola (Kharif).
5. The expenditure in connection with hired labour and Mechanical power constitutes 53.97 % followed by Incidental charges with 18.89% of the average working capital of Pumpkin.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	2	1	0	3
Talukas	0	0	0	4	2	0	6
Villages	0	0	0	8	4	0	12
Farmer/Holdings	0	0	0	40	20	0	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	0	0.00	0.00	0.00
Medium	(1.00 ha – 2.00 ha)	32	12.00	19.87	1.89
Large	(more than 2.00 ha)	28	13.40	18.51	2.59
Total –	All classes	60	25.40	19.13	2.21

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0.00	36.40	40.44	38.41
Female	0.00	59.26	71.22	65.10
Total	0.00	49.97	58.45	54.14

Cost of Cultivation for Pumpkin (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0.00	1,09,424.62	93,149.45	1,00,838.51
Cost B	0.00	1,66,628.87	1,49,276.43	1,57,474.43
Cost C	0.00	1,85,599.70	1,63,324.93	1,73,848.45

Cost of Production of Pumpkin (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0.00	227.97	191.74	208.74
Cost B	0.00	347.14	307.27	325.99
Cost C	0.00	386.67	336.18	359.88

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	0.00	3,36,700.58	3,31,207.46	3,33,802.64
By-product	0.00	0.00	0.00	0.00
Total	0.00	3,36,700.58	3,31,207.46	3,33,802.64

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	73.00	1,01,800.00	25.40	4,007.87
Fertilizer	Kg	22,500.00	2,12,540.00	25.40	8,367.72
Manures	MT	55.00	87,260.00	16.20	5,386.42
Plant protection chemicals	L	362.00	2,05,090.00	25.40	8,074.41
Diesel (excluding irrigation)	₹	-	0.00	25.40	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	812.50	25.40	31.99
Other Expenses	₹	-	0.00	25.40	0.00
Irrigation Charges	₹	-	58,951.40	25.40	2320.92
Incidental Charges	₹	-	4,54,950.00	25.40	17,911.42

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	2	12	44	60
Average Household size			5	10	6	5	6
Principle source of income	Cultivation		2	2	12	44	60
	Livestock		0	0	0	2	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	5	5
Cultivated Area (ha.)	Own land	Irrigated	4	4	28	97	133
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Category: Vegetables Crop: Bittergourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Momordica charantia***
Local Name: Karli, Karela
Harvesting Period: 90 days (Kharif) and December to February (Rabi)
Common Varieties (major) in the State: ArkaHarit, Phule Priyanka, VK-2, Priya

No.	Districts
Kharif	
1	Gondia
2	Nagpur
3	Sindhudurg
Rabi	
1	Dhule
2	Gondia

Major findings of the Survey:

1. The Working capital of Bitter gourd ranges from ₹ 87,637.25 per ha. in Dhule to ₹ 1,18,508.85 per ha. in Gondia (Rabi).
2. The price realized for Bitter gourd ranges from ₹ 1891.33 per quintal in Sindhudurg (Kharif) to ₹ 2616.37 per quintal in Dhule (Rabi).
3. Sales realization of Bitter gourd ranges from ₹ 83,966.13 per ha. in Sindhudurg to ₹ 3,16,151.68 in Gondia (Kharif).
4. The productivity of Bitter gourd ranges from 95.31 quintals per ha. in Gondia (Rabi) to 173.14 quintals per ha. in Gondia (Kharif).
5. Expenditure in connection with the hired human labour constitutes 44.28 % of the average working capital of Bitter gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	0	1	0	0	2	4
Talukas	2	0	2	0	0	6	10
Villages	4	0	4	0	0	12	20
Farmer/Holdings	20	0	20	0	0	60	100

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	58	18.30	42.88	0.74
Medium	(1.00 ha – 2.00 ha)	29	8.69	19.85	1.51
Large	(more than 2.00 ha)	13	4.84	8.52	4.37
Total –	All classes	100	31.83	22.22	1.43

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	20.92	23.29	26.15	21.79
Female	69.88	64.25	61.15	67.93
Total	52.18	49.91	50.00	51.52

Cost of Cultivation for Bitter gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,18,176.13	1,01,509.57	85,482.73	1,08,654.66
Cost B	1,65,914.15	1,46,833.73	1,33,953.86	1,55,845.14
Cost C	1,96,933.27	1,68,956.86	1,47,879.48	1,81,836.34

Cost of Production of Bitter gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	961.59	928.55	803.37	931.20
Cost B	1,350.04	1,343.14	1,258.91	1,335.64
Cost C	1,602.44	1,545.51	1,389.78	1,558.39

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,84,571.04	2,70,349.83	2,89,483.47	2,81,435.44
By-product	0.00	0.00	0.00	0.00
Total	2,84,571.04	2,70,349.83	2,89,483.47	2,81,435.44

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	94.22	1,36,950.00	31.83	4,302.54
Fertilizer	Kg	19,805.00	4,02,510.00	31.83	12,645.62
Manures	MT	85.00	1,30,300.00	13.50	9,651.85
Plant protection chemicals	L	325.10	3,73,700.00	31.83	11,740.50
Diesel (excluding irrigation)	₹	-	0.00	31.83	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	2,960.24	31.83	93.00
Other Expenses	₹	-	5,76,600.00	31.83	18,114.99
Irrigation Charges	₹	-	1,01,698.26	31.83	3,195.04
Incidental Charges	₹	-	2,51,705.00	31.83	7,907.79

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			6	8	20	66	100
Average Household size			5	5	5	5	5
Principle source of income	Cultivation		5	8	20	53	86
	Livestock		3	0	0	18	21
	Other Agricultural Activities		0	0	0	2	2
	Other		0	0	0	2	2
Cultivated Area (ha.)	Own land	Irrigated	10	10	35	88	143
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Category: Vegetables Crop: Pointed gourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Coccinia grandis***
Local Name: Parwal
Harvesting Period: August-September (Kharif) and January-February (Rabi)
Common Varieties (major) in the State: Suvarnarekha, Suvarnasuruchi

No.	Districts
Kharif	
1	Akola
Rabi	
1	Beed

Major findings of the Survey:

1. Working capital for Pointed Gourd ranges from ₹ 57,966.30 per ha. in Beed ₹ 62,142.21 per ha. in Akola.
2. The price realization for Pointed Gourd ranges from ₹ 1,538.84 per quintal in Beed to ₹ 1,592.29 per quintal in Akola.
3. The average productivity in case of Pointed Gourd is 68.47 quintal per ha.
4. The contribution of cultivating Pointed Gourd ranges from ₹ 44,307.71 per ha. in Beed to ₹ 42,152.72 per ha. in Akola.
5. The cost composition under the head Hired labour is highest at 43.64 % of the working capital of Pointed Gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	1	0	2
Talukas	0	0	0	2	2	0	4
Villages	0	0	0	4	4	0	8
Farmer/Holdings	0	0	0	20	20	0	40

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	10	2.60	37.14	0.70
Medium	(1.00 ha – 2.00 ha)	22	7.50	19.53	1.75
Large	(more than 2.00 ha)	8	2.40	8.96	3.35
Total –	All classes	40	12.50	17.31	1.81

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	13.18	18.26	33.67	19.84
Female	35.97	57.29	81.45	57.06
Total	27.57	42.38	64.80	43.20

Cost of Cultivation for Pointed gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	53,892.45	63,935.82	74,620.85	63,898.33
Cost B	70,966.50	82,125.23	95,605.50	82,392.43
Cost C	1,11,774.20	1,13,318.56	1,15,855.50	1,13,484.43

Cost of Production of Pointed gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	787.19	949.54	1,035.20	933.09
Cost B	1,036.59	1,219.68	1,326.32	1,203.16
Cost C	1,632.66	1,682.95	1,607.24	1,657.19

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	99,230.77	1,05,324.00	1,21,458.33	1,07,154.40
By-product	0.00	0.00	0.00	0.00
Total	99,230.77	1,05,324.00	1,21,458.33	1,07,154.40

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	27.75	53,276.00	12.50	4,262.08
Fertilizer	Kg	4,500.00	93,340.00	12.50	7,467.20
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	67.65	99,910.00	12.50	7,992.80
Diesel (excluding irrigation)	₹	-	0.00	12.50	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	433.48	12.50	34.68
Other Expenses	₹	-	2,03,830.00	12.50	16,306.40
Irrigation Charges	₹	-	33,322.35	12.50	2,665.79
Incidental Charges	₹	-	47,120.00	12.50	3,769.60

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			8	0	4	28	40
Average Household size			6	0	6	7	6
Principle source of income	Cultivation		8	0	4	28	40
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	23	0	4	45	72
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	7	7

Category: Vegetables Crop: Sponge gourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Luffa aegyptiaca***
Local Name: Ghosali, Gilaki
Harvesting Period: September-January (Kharif) and February-March (Rabi)
Common Varieties (major) in the State: Pusa Chikani, PSG- 9, PSG- 10, Swarna, Vikram, Swarna, Uphar, local, Swarna Manjari

No.	Districts
Kharif	
1	Chandrapur
Rabi	
1	Dhule

Major findings of the Survey:

1. The Working capital of Sponge gourd ranges from ₹ 1,10,643.13 per ha. in Chandrapur to ₹ 1,11,594.55 per ha. in Dhule.
2. The price realized for Sponge gourd ranges from ₹ 1,688.54 per quintal in Chandrapur to ₹ 1,748.97 per quintal in Dhule.
3. Sales realization of Sponge gourd ranges from ₹ 68,759.63 per ha. in Chandrapur to ₹ 1,51,124.42 in Dhule.
4. The productivity of Sponge gourd ranges from 110.50 quintals per ha. in Chandrapur to 154.35 quintals per ha. in Dhule.
5. Expenditure in connection with the hired human labour constitutes 49.12 % of the average working capital of Sponge gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	0	0	1	2
Talukas	0	0	2	0	0	2	4
Villages	0	0	4	0	0	4	8
Farmer/Holdings	0	0	20	0	0	20	40

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	14	3.20	36.36	0.63
Medium	(1.00 ha – 2.00 ha)	14	4.30	21.94	1.40
Large	(more than 2.00 ha)	12	4.70	10.00	3.92
Total –	All classes	40	12.20	16.18	1.89

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	23.29	17.13	25.67	21.56
Female	71.45	69.26	68.04	69.59
Total	52.31	52.47	54.15	52.86

Cost of Cultivation for Sponge gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,51,607.65	1,16,004.65	97,822.62	1,18,338.59
Cost B	1,93,015.39	1,54,555.20	1,36,465.01	1,57,673.95
Cost C	2,32,109.14	1,89,462.17	1,56,124.58	1,87,805.09

Cost of Production of Sponge gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,085.33	911.92	734.45	891.19
Cost B	1,381.77	1,214.97	1,024.58	1,187.42
Cost C	1,661.63	1,489.37	1,172.18	1,414.33

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,39,406.25	2,24,386.05	2,26,021.28	2,28,955.74
By-product	0.00	0.00	0.00	0.00
Total	2,39,406.25	2,24,386.05	2,26,021.28	2,28,955.74

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	42.40	39,700.00	12.20	3,254.10
Fertilizer	Kg	7.458.00	1,40,270.00	12.20	11,497.54
Manures	MT	13.00	26,200.00	2.80	9,357.14
Plant protection chemicals	L	115.70	1,49,160.00	12.20	12,226.23
Diesel (excluding irrigation)	₹	-	0.00	12.20	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	847.61	12.20	69.48
Other Expenses	₹	-	3,18,050.00	12.20	26,069.67
Irrigation Charges	₹	-	46,817.32	12.20	3,837.49
Incidental Charges	₹	-	1,08,650.00	12.20	8,905.74

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	3	17	18	40
Average Household size			4	4	4	5	5
Principle source of income	Cultivation		2	3	17	18	40
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	2	7	29	37	75
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Crop Profiles

Season wise Crop wise Results

Volume I

Section B

KHARIF CROPS

YEAR: 2018-19

Season: Kharif Category: Cereals Crop: Bajra

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Pennisetum glaucum***
Local Name: Bajri
Harvesting Period: August
Common Varieties (major) in the State: Mahico 204, Mahabeej, Ganga-Kaveri, Pioneer, NBH – 149, VBH – 4

No.	Districts	No.	Districts
1	Akola	14	Pune
2	Aurangabad	15	Sangli
3	Beed	16	Satara
4	Buldhana	17	Solapur
5	Chandrapur	18	Wardha
6	Dhule	19	Washim
7	Hingoli	20	Yavatmal
8	Jalna		
9	Latur		
10	Nanded		
11	Nashik		
12	Osmanabad		
13	Parbhani		

Major findings of the Survey:

1. The working capital of Bajra ranges from ₹ 12,721.90 per ha. in Solapur to ₹ 47,441.70 per ha. in Akola.
2. Productivity of Bajra ranges from 6.70 quintals per ha. in Solapur to 30.77 quintals per ha. in Latur district.
3. Price realization of Bajra ranges from ₹1,317.22 per quintal in Chandrapur to ₹2,500.00 per quintal in Wardha.
4. The contribution of cultivating Bajra (Sales realization – working capital-interest on working capital) ranges from ₹ (-)995.07 per ha. in Solapur to ₹ 28,811.31 per ha. in Jalna.
5. It is noteworthy that expenditure on hired labour and mechanical power constitutes more than 50% of the cost of cultivation of Bajra at nearly 59.07 per cent.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	2	8	4	2	20
Talukas	0	8	3	16	8	5	40
Villages	0	16	8	33	16	8	81
Farmer/Holdings	0	80	40	160	80	40	400

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha.)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha.)	56	24.00	68.77	0.62
Medium	(1.00 ha. – 2.00 ha.)	186	104.32	34.27	1.64
Large	(more than 2.00 ha.)	158	163.58	24.06	4.30
Total –	All classes	400	291.90	28.64	2.55

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	45.20	43.47	46.59	45.13
Female	49.45	62.51	66.04	62.17
Total	47.79	54.86	56.79	54.81

Cost of Cultivation for Bajra (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	27,562.40	24,661.67	23,191.30	24,076.18
Cost B	36,738.47	33,444.15	31,564.36	32,661.58
Cost C	41,315.55	36,682.26	33,675.56	35,378.27

Cost of Production of Bajra (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,745.38	1,434.46	1,279.04	1,367.68
Cost B	2,326.45	1,945.30	1,740.83	1,855.39
Cost C	2,616.29	2,133.65	1,857.27	2,009.71

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	31,953.33	32,129.26	30,732.38	31,331.99
By-product	2,378.75	2,022.34	2,068.28	2,077.39
Total	34,332.08	34,151.59	32,800.67	33,409.38

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	1,708.50	2,98,763.00	291.90	1023.51
Fertilizer	Kg	54,195.00	8,27,830.00	247.90	3339.37
Manures	MT	505.50	7,13,600.00	141.58	5040.26
Plant protection chemicals	L	106.50	1,17,290.00	70.30	1668.42
Diesel (excluding irrigation)	₹	-	52,140.00	291.90	178.62
Repair & Maintenance of Machinery & Equipments	₹	-	15,200.58	291.90	52.07
Other Expenses	₹	-	1,51,761.00	291.90	519.91
Irrigation Charges	₹	-	2,08,135.37	291.90	713.04
Incidental Charges	₹	-	5,24,653.00	291.90	1797.37

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			28	8	98	266	400
Average Household size			5	5	6	6	6
Principle source of income	Cultivation		28	8	97	264	397
	Livestock		5	4	13	44	66
	Other Agricultural Activities		1	0	1	10	12
	Other		0	0	4	5	9
Cultivated Area (ha.)	Own land	Irrigated	24	5	250	305	585
		Rainfed	28	16	96	295	435
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	14	8	22

Season: Kharif Category: Cereals Crop: Maize

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Zea mays***
Local Name: Maka, Makai
Harvesting Period: June to September
Common Varieties (major) in the State:505, 525, 3396, 3401, 3651, African Tall, Ashwini, Ganga, Ganga Safed, Godrej, Hytech, Kaveri, Madhuri, Mahabij, NK – 2640, Pioneer, Royal Gold, Sugnadha, Sygenta, Tata, Varun.

No.	Districts	No.	Districts
1	Ahmednagar	14	Sangli
2	Aurangabad	15	Sindhudurg
3	Beed		
4	Buldhana		
5	Dhule		
6	Jalna		
7	Jalgaon		
8	Latur		
9	Nanded		
10	Nandurbar		
11	Nashik		
12	Osmanabad		
13	Pune		

Major findings of the Survey:

1. The working capital of Maize ranges from ₹13,410.87 per ha. in Pune to ₹ 60,789.21 per ha. in Nashik.
2. The contribution of Maize ranges from ₹6,489.39 per ha. in Ahmednagar to ₹ 78,178.17 per ha. in Nanded.
3. Productivity ranges from 22.90 quintals per ha. in Osmanabad to 66.53 quintals per ha. in Nanded.
4. The price realized ranges from ₹ 1,104.14 per quintal in Ahmednagar to ₹ 1,571.43 in Sindhudurg.
5. It is noteworthy that, major expenditure is incurred on hired labour and mechanical power at 48.97 percent.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	2	5	6	1	0	15
Talukas	2	4	11	13	2	0	32
Villages	4	8	22	25	4	0	63
Farmer/Holdings	20	40	100	120	20	0	300

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	65	30.60	66.52	0.71
Medium	(1.00 ha – 2.00 ha)	127	79.60	39.02	1.61
Large	(more than 2.00 ha)	108	155.60	31.76	4.54
Total –	All classes	300	265.80	35.92	2.47

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	26.39	35.81	30.59	32.22
Female	55.63	66.13	67.27	65.48
Total	41.41	52.46	52.88	51.24

Cost of Cultivation for Maize (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	23,975.33	29,946.32	44,947.03	38,040.37
Cost B	36,083.74	44,513.74	65,764.11	55,983.27
Cost C	41,557.60	50,016.25	68,820.34	60,050.42

Cost of Production of Maize (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	787.85	803.14	888.77	859.19
Cost B	1,185.74	1,193.83	1,300.41	1,264.45
Cost C	1,365.62	1,341.41	1,360.84	1,356.32

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	41,762.75	49,810.30	69,883.35	60,634.65
By-product	4,248.37	4,320.35	5,077.76	4,755.46
Total	46,011.11	54,130.65	74,961.12	65,390.11

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	6,560.50	7,31,015.00	265.80	2,750.24
Fertilizer	Kg	1,09,054.00	13,60,045.00	265.80	5,116.80
Manures	MT	708.50	10,14,550.00	190.30	5,331.32
Plant protection chemicals	L	277.25	3,52,980.00	129.00	2,736.28
Diesel (excluding irrigation)	₹	-	2,200.00	265.80	8.28
Repair & Maintenance of Machinery & Equipments	₹	-	15,648.40	265.80	58.87
Other Expenses	₹	-	5,250.00	265.80	19.75
Irrigation Charges	₹	-	2,71,388.34	265.80	1,021.02
Incidental Charges	₹	-	4,46,661.00	265.80	1,680.44

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			41	25	55	179	300
Average Household size			5	7	5	6	6
Principle source of income	Cultivation		41	25	55	178	299
	Livestock		3	0	18	15	36
	Other Agricultural Activities		0	0	2	1	3
	Other		0	0	10	4	14
Cultivated Area (ha.)	Own land	Irrigated	57	38	126	294	515
		Rainfed	14	3	49	160	225
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Cereals Crop: Paddy

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Oryza sativa***
Local Name: *Bhat, Dhan, Sal*
Harvesting Period: June to September
Common Varieties (major) in the State: Ambemohar, kali kusal, Indrayani

No.	Districts	No.	Districts
1	Bhandara	14	Satara
2	Chandrapur	15	Sindhudurg
3	Dhule	16	Thane
4	Gadchiroli		
5	Gondia		
6	Kolhapur		
7	Nagpur		
8	Nandurbar		
9	Nashik		
10	Palghar		
11	Pune		
12	Raigad		
13	Ratnagiri		

Major findings of the Survey:

1. The working capital of Paddy ranges from ₹ 23,588.99 per ha. in Raigad to ₹ 57,849.74 per ha. in Bhandara.
2. The contribution of cultivating Paddy ranges from ₹ (-) 24,942.61 per ha. in Ratnagiri to ₹ 76,263.42 per ha. in Satara.
3. Productivity ranges from 14.18 quintals per ha. in Raigad to 59.03 quintals per ha. in Kolhapur.
4. The price realized ranges from ₹1,129.07 per quintal in Ratnagiri to ₹ 3,286.25 in Satara.
5. It is noteworthy that, major expenditure is incurred on hired labour and Mechanical power constitutes at 49.20 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	5	3	3	0	0	5	16
Talukas	10	6	5	0	0	10	31
Villages	19	12	14	0	0	20	65
Farmer/Holdings	100	60	60	0	0	100	320

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	98	51.84	79.63	0.66
Medium	(1.00 ha – 2.00 ha)	141	110.9	50.50	1.56
Large	(more than 2.00 ha)	81	108.3	32.54	4.11
Total –	All classes	320	271.04	43.89	1.93

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	50.74	47.14	63.74	53.02
Female	71.49	75.02	82.58	76.88
Total	62.90	63.89	75.94	67.64

Cost of Cultivation for Paddy (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	46,483.75	40,608.11	34,499.00	39,290.87
Cost B	60,048.96	53,117.51	48,655.43	52,660.32
Cost C	66,483.18	58,973.24	51,631.89	57,476.22

Cost of Production of Paddy (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,359.89	1,229.27	929.41	1,126.26
Cost B	1,756.74	1,607.95	1,310.79	1,509.50
Cost C	1,944.97	1,785.21	1,390.98	1,647.54

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	72,157.37	66,680.23	77,697.40	72,129.95
By-product	2,599.34	2,580.25	2,317.17	2,478.79
Total	74,756.71	69,260.48	80,014.57	74,608.74

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	9,937.50	6,60,205.00	271.04	2,435.82
Fertilizer	Kg	1,01,835.00	15,22,916.00	270.64	5,627.09
Manures	MT	882.50	13,65,450.00	161.54	8,452.71
Plant protection chemicals	L	448.63	4,26,065.00	196.54	2,167.83
Diesel (excluding irrigation)	₹	-	78,603.00	271.04	290.01
Repair & Maintenance of Machinery & Equipments	₹	-	20,643.37	271.04	76.16
Other Expenses	₹	-	87,600.00	271.04	323.20
Irrigation Charges	₹	-	1,73,215.08	271.04	639.08
Incidental Charges	₹	-	5,59,485.00	271.04	2,064.22

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			12	88	110	110	320
Average Household size			6	6	5	6	6
Principle source of income	Cultivation		12	88	109	91	300
	Livestock		0	7	7	1	15
	Other Agricultural Activities		0	1	1	1	3
	Other		2	18	4	0	24
Cultivated Area (ha.)	Own land	Irrigated	11	58	103	151	323
		Rainfed	9	101	144	39	294
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			1	7	2	1	11

Season: Kharif Category: Cereals Crop: Jowar

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Sorghum vulgare***
Local Name: Jwari
Harvesting Period: September to November
Common Varieties (major) in the State:7851, 9, 51, Aishwarya, Bhakti, CS – V15, CSH – 1, CS – 23, Eagle, Goal, GFS – 3, Golden, Goal – 45, HC – 260, HCL – 136, Hytech, Bhagyashri, Kaveri, Mahi – 1, Mahyco, Maldandi, Moti, Nuzividu, Pinoneer, Pl - 4, Pl - 5, Prabhat 71, Pradhan, Pusachari – 9, Pusachari – 23, PVK – 400, Rajani, Rani, Ruchira, SPV – 669, Vaibhav, Yashoda.

No.	Districts
1	Akola
2	Amravati
3	Beed
4	Buldhana
5	Dhule
6	Hingoli
7	Jalgaon
8	Latur
9	Nanded
10	Nandurbar
11	Pune
12	Sangli

Major findings of the Survey:

1. The working capital for Jowar ranges from ₹17,452.27 per ha. in Buldhana to ₹ 35,774.61 per ha. in Hingoli district.
2. The productivity ranges from 7.27 quintals per Ha. in Amravati to 32.60 quintals per ha. in Latur with average productivity of 20.83 quintals per ha.
3. The price realization for Jowar ranges from ₹ 1,401.18 per quintal in Latur to ₹ 3,427.84 per quintal in Nanded with average rate of 2,397.58 per quintal.
4. The contribution of cultivating Jowar ranges from ₹ (-)1,221.32 per ha. in Amravati to ₹ 41,145.74 per quintal in Akola.
5. The expenditure in connection with Hired labour and Mechanical power constitutes 54.95 % of the average working capital of Jowar.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	2	3	4	3	0	12
Talukas	0	4	6	9	7	0	26
Villages	0	8	15	17	12	0	52
Farmer/Holdings	0	40	60	80	60	0	240

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	31	20.50	84.71	0.78
Medium	(1.00 ha – 2.00 ha)	95	72.40	43.41	1.76
Large	(more than 2.00 ha)	114	119.60	20.92	5.02
Total –	All classes	240	212.50	27.86	3.18

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	93.46	70.93	82.55	78.32
Female	97.14	75.60	89.77	85.41
Total	95.92	73.46	86.91	82.47

Cost of Cultivation for Jowar (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	31,328.51	30,659.92	31,092.05	30,967.63
Cost B	42,351.77	41,654.86	44,512.22	43,330.28
Cost C	42,676.16	44,482.21	45,585.80	44,929.11

Cost of Production of Jowar (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,245.58	1,627.40	1,260.12	1,430.26
Cost B	3,035.70	2,211.01	1,804.02	2,001.24
Cost C	3,058.96	2,361.08	1,847.53	2,075.08

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	37,139.02	42,230.66	53,355.68	48,000.89
By-product	9,131.71	4,294.20	7,446.49	6,535.06
Total	46,270.73	46,524.86	60,802.17	54,535.95

Inputs under consideration for valuation of Gross Value Added:

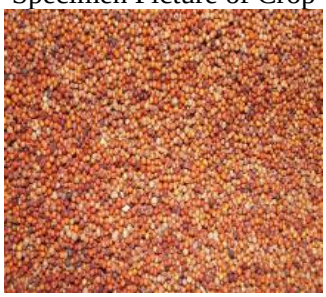
Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	3,398.50	4,79,870.00	212.50	2,258.21
Fertilizer	Kg	41,213.00	6,93,550.00	209.30	3,313.66
Manures	MT	259.25	3,25,650.00	80.70	4,035.32
Plant protection chemicals	L	101.55	98,730.00	66.60	1,482.43
Diesel (excluding irrigation)	₹	-	4,350.00	212.50	20.47
Repair & Maintenance of Machinery & Equipments	₹	-	5,664.07	212.50	26.65
Other Expenses	₹	-	86,315.00	212.50	406.19
Irrigation Charges	₹	-	88,783.90	212.50	417.81
Incidental Charges	₹	-	4,04,396.00	212.50	1,903.04

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			25	59	96	60	240
Average Household size			5	7	6	6	6
Principle source of income	Cultivation		25	59	96	60	240
	Livestock		0	0	4	0	4
	Other Agricultural Activities		6	0	2	1	9
	Other		0	0	8	0	8
Cultivated Area (ha.)	Own land	Irrigated	14	26	278	144	462
		Rainfed	36	81	77	67	261
	Leased land	Irrigated	0	0	26	0	26
		Rainfed	0	0	14	0	14
Awareness of Minimum Support price (Yes)			0	0	8	0	8

Season: Kharif Category: Cereals Crop: Ragi

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Eleusine coracana***
Local Name: Nachani, Nagli.
Harvesting Period: October to December
Common Varieties (major) in the State: Co – 9, Co -13, Co – 14, Annapurna, Godavari, GPU – 28.

No.	Districts
1	Nashik
2	Palghar
3	Raigad
4	Ratnagiri
5	Sindhudurg
6	Thane

Major findings of the Survey:

1. Working capital of Ragi ranges from ₹5,367.67 per ha. in Nashik to ₹ 21,424.20 per ha. in Raigad.
2. Price realization for Ragi ranges from ₹2,049.02 per quintal in Nashik to ₹ 4,500.00 per quintal in Ratnagiri.
3. The productivity of Ragi ranges from 5.10 quintals per Ha. in Nashik to 12.07 quintals per ha. in Thane.
4. The contribution of cultivating Ragi ranges from ₹2,716.21 per ha. in Sindhudurg to ₹ 27,080.64 per ha. in Thane.
5. The expenditure incurred in connection with Hired Labour and Mechanical Power constitutes 42.59 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	5	0	1	0	0	0	6
Talukas	10	0	2	0	0	0	12
Villages	20	0	4	0	0	0	24
Farmer/Holdings	100	0	20	0	0	0	120

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	52	18.32	67.80	0.52
Medium	(1.00 ha – 2.00 ha)	47	25.18	33.31	1.61
Large	(more than 2.00 ha)	21	14.40	20.63	3.32
Total –	All classes	120	57.90	33.58	1.44

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	20.81	8.57	11.68	14.35
Female	54.87	41.70	25.77	44.10
Total	42.70	30.58	20.46	33.61

Cost of Cultivation for Ragi (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	21,912.45	14,926.61	8,169.89	15,456.55
Cost B	26,611.89	19,967.39	12,115.41	20,116.93
Cost C	34,493.98	26,986.85	19,202.21	27,426.09

Cost of Production of Ragi (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,573.31	1,754.68	1,118.31	1,882.49
Cost B	3,125.19	2,347.24	1,658.38	2,450.09
Cost C	4,050.83	3,172.40	2,628.44	3,340.28

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	27,210.70	29,573.07	23,305.56	27,266.84
By-product	0.00	0.00	0.00	0.00
Total	27,210.70	29,573.07	23,305.56	27,266.84

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	562.10	40,690.00	57.90	702.76
Fertilizer	Kg	8,525.00	1,11,270.00	38.00	2,928.16
Manures	MT	780.00	91,150.00	15.84	5,754.42
Plant protection chemicals	L	20.50	21,500.00	9.60	2,239.58
Diesel (excluding irrigation)	₹	-	0.00	57.90	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	2,853.72	57.90	49.29
Other Expenses	₹	-	6,250.00	57.90	107.94
Irrigation Charges	₹	-	53,789.43	57.90	929.01
Incidental Charges	₹	-	99,579.00	57.90	1,719.84

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			7	50	23	40	120
Average Household size			5	7	5	5	6
Principle source of income	Cultivation		7	50	23	20	100
	Livestock		0	3	1	0	4
	Other Agricultural Activities		0	0	0	0	0
	Other		0	24	3	0	27
Cultivated Area (ha.)	Own land	Irrigated	5	9	8	14	37
		Rainfed	6	88	24	18	136
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Pulses Crop: Tur

Specimen Picture of Crop

General Profile of Crop

S Scientific Name: ***Cajanus cajan***
Local Name: Tur
Harvesting Period: December to February
Common Varieties (major) in the State: Khadaka, Bajrang, Gwalior, Bahar and Laxmi.

No.	Districts	No.	Districts
1	Ahmednagar	14	Jalgaon
2	Akola	15	Latur
3	Amravati	16	Nanded
4	Aurangabad	17	Nagpur
5	Beed	18	Nandurbar
6	Bhandara	19	Nashik
7	Buldhana	20	Osmanabad
8	Chandrapur	21	Parbhani
9	Dhule	22	Raigad
10	Gadchiroli	23	Solapur
11	Gondia	24	Wardha
12	Hingoli	25	Washim
13	Jalna		

Major findings of the Survey:

1. The working capital of Tur ranges from ₹17,352.92 per ha. in Bhandara to ₹ 70,727.03 per ha. in Latur district.
2. Price realization for Tur ranges from ₹2,373.23 per quintal in Wardha to ₹ 5,472.73 per quintal in Latur with average rate of ₹ 4,598.75 per quintal.
3. The productivity of Tur varies from district to district with range of 12.41 quintals per ha. in Jalna to 25.10 quintals per ha. in Hingoli with average productivity 17.81 quintals per ha.
4. The contribution of cultivating Tur ranges from ₹ 9,518.60 per ha. in Jalna to ₹ 89,852.57 per ha. in Hingoli.
5. Only Tur has the intercropping pattern of cultivation among all the crops under study and the expenditure incurred in connection with Hired labour. Mechanical power constitutes 48.43 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	1	5	8	4	6	25
Talukas	2	2	8	16	7	13	48
Villages	4	4	20	34	16	26	104
Farmer/Holdings	20	20	100	160	80	120	500

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	47	29.68	41.11	1.54
Medium	(1.00 ha – 2.00 ha)	167	107.20	37.58	1.71
Large	(more than 2.00 ha)	286	250.32	19.80	4.42
Total –	All classes	500	387.20	23.88	3.24

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	62.19	58.83	60.76	60.27
Female	71.22	73.59	85.26	81.36
Total	67.20	67.85	77.61	74.12

Cost of Cultivation for Tur (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	36,345.97	34,301.71	36,981.19	36,190.65
Cost B	53,280.01	51,307.15	54,571.63	53,568.81
Cost C	55,813.71	54,227.81	56,557.68	55,855.60

Cost of Production of Tur (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,197.04	1,971.17	2,047.81	2,037.68
Cost B	3,220.67	2,948.39	3,021.87	3,016.13
Cost C	3,373.83	3,116.23	3,131.85	3,144.89

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	80,748.48	82,078.69	84,301.35	83,413.64
By-product	561.32	800.96	592.16	647.61
Total	81,309.80	82,879.66	84,893.52	84,061.25

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	6,094.00	8,08,075.00	387.20	2,086.96
Fertilizer	Kg	1,05,276.50	14,96,372.00	332.88	4,495.20
Manures	MT	753.00	10,20,650.00	186.57	5,470.54
Plant protection chemicals	L	1,012.71	13,65,810.00	356.88	3,827.06
Diesel (excluding irrigation)	₹	-	13,890.00	387.20	35.87
Repair & Maintenance of Machinery & Equipments	₹	-	27,403.49	387.20	70.77
Other Expenses	₹	-	2,88,270.00	387.20	744.50
Irrigation Charges	₹	-	2,28,114.94	387.20	589.14
Incidental Charges	₹	-	9,44,575.00	387.20	2,439.49

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			28	45	143	284	500
Average Household size			5	6	5	5	5
Principle source of income	Cultivation		28	45	143	282	498
	Livestock		0	0	2	20	22
	Other Agricultural Activities		0	0	1	0	1
	Other		0	1	9	4	14
Cultivated Area (ha.)	Own land	Irrigated	45	70	361	650	1,126
		Rainfed	24	30	110	290	454
	Leased land	Irrigated	0	0	8	8	16
		Rainfed	0	7	8	10	25
Awareness of Minimum Support price (Yes)			3	4	21	36	64

Season: Kharif Category: Pulses Crop: Moong

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Vigna radiata***
Local Name: Mug
Harvesting Period: October to December
Common Varieties (major) in the State: A1 naval, Anand, Ajit 155, AKM – 8803, Ankur.

No.	Districts	No.	Districts
1	Ahmednagar	14	Osmanabad
2	Akola	15	Parbhani
3	Amravati	16	Pune
4	Aurangabad	17	Washim
5	Beed		
6	Buldhana		
7	Dhule		
8	Hingoli		
9	Jalna		
10	Jalgaon		
11	Latur		
12	Nanded		
13	Nandurbar		

Major findings of the Survey:

1. Working capital of Moong ranges from ₹ 12,189.49 per ha. in Buldhana to ₹ 48,538.49 per ha. in Washim.
2. Price realization for Moong ranges from ₹4,106.38 per quintal in Dhule to ₹ 6,541.18 per quintal in Hingoli.
3. The productivity of Moong ranges from 4.44 quintals per ha. in Amravati to 23.15 quintals per ha. in Nandurbar with average productivity of 11.96 quintals per ha.
4. The contribution of cultivating Moong ranges from ₹(-)7,911.84 per ha. in Jalgaon to ₹ 65,980.03 per ha. in Nandurbar.
5. The expenditure incurred in connection with hired labour and mechanical power constitutes 51.63 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	1	4	8	4	0	17
Talukas	0	2	8	17	8	0	35
Villages	0	4	15	32	16	0	67
Farmer/Holdings	0	20	80	160	80	0	340

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	20	10.40	67.10	0.78
Medium	(1.00 ha – 2.00 ha)	169	110.40	38.57	1.69
Large	(more than 2.00 ha)	151	143.40	24.63	3.86
Total –	All classes	340	264.20	29.89	2.60

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	93.31	42.26	48.51	52.41
Female	95.28	57.28	66.94	64.76
Total	94.34	52.66	61.51	60.83

Cost of Cultivation for Moong (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	44,698.67	28,914.82	25,514.08	27,690.31
Cost B	65,190.90	42,447.91	38,148.43	41,009.53
Cost C	66,200.52	45,742.29	40,281.62	43,583.72

Cost of Production of Moong (₹Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,914.52	2,467.87	2,499.47	2,508.15
Cost B	4,250.69	3,622.92	3,737.18	3,714.59
Cost C	4,316.52	3,904.10	3,946.16	3,947.76

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	81,372.69	54,364.52	51,741.60	54,004.03
By-product	326.92	147.64	516.74	355.03
Total	81,699.62	54,512.16	52,258.33	54,359.06

Inputs under consideration for valuation of Gross Value Added:

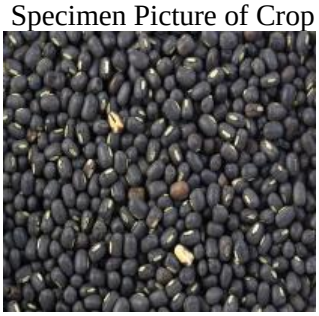
Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	5,264.00	4,53,230.00	264.20	1,715.48
Fertilizer	Kg	66,272.00	7,46,835.00	222.80	3,352.04
Manures	MT	1,155.72	6,90,150.00	180.20	3,829.91
Plant protection chemicals	L	357.89	3,63,050.00	143.00	2,538.81
Diesel (excluding irrigation)	₹	-	6,560.00	264.20	24.83
Repair & Maintenance of Machinery & Equipments	₹	-	9,732.84	264.20	36.84
Other Expenses	₹	-	1,11,985.00	264.20	423.86
Irrigation Charges	₹	-	49,607.37	264.20	187.76
Incidental Charges	₹	-	5,09,442.00	264.20	1,928.24

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			19	31	82	208	340
Average Household size			6	6	5	5	5
Principle source of income	Cultivation		19	31	82	206	338
	Livestock		0	0	0	6	6
	Other Agricultural Activities		6	0	10	4	20
	Other		0	0	1	2	3
Cultivated Area (ha.)	Own land	Irrigated	12	7	133	159	311
		Rainfed	38	43	133	340	555
	Leased land	Irrigated	0	0	15	0	15
		Rainfed	0	0	4	0	4
Awareness of Minimum Support price (Yes)			1	0	16	6	23

Season: Kharif Category: Pulses Crop: Udid

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Vigna mungo***
Local Name: Udid
Harvesting Period: October to December
Common Varieties (major) in the State: Mahabeej, Royal, AKV-4, Canon, Dhanava.

No.	Districts	No.	Districts
1	Ahmednagar	14	Raigad
2	Akola	15	Solapur
3	Beed	16	Sindhudurg
4	Buldhana	17	Thane
5	Dhule	18	Washim
6	Hingoli		
7	Jalna		
8	Jalgaon		
9	Latur		
10	Nanded		
11	Nandurbar		
12	Osmanabad		
13	Palghar		

Major findings of the Survey:

1. The working capital of Udid ranges from ₹ 10,788.59 per ha. in Nanded to ₹ 57,517.83 per ha. in Thane district.
2. Price realization for Udid ranges from ₹ 3,205.90 per quintal in Jalna to ₹ 6,191.55 per quintal in Sindhudurg.
3. The productivity of Udid varies from district to district with range of 6.22 quintals per ha. in Nanded to 28.92 quintals per ha. in Hingoli.
4. The contribution of cultivating Udid ranges from ₹(-)22,346.95 per ha. in Thane to ₹ 83,994.70 per ha. in Hingoli.
5. The contribution of Manure used in case of Udid is 12.72 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	4	1	4	6	3	0	18
Talukas	8	2	7	12	7	0	36
Villages	15	4	15	29	12	0	75
Farmer/Holdings	80	20	80	120	60	0	360

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	85	31.53	58.52	0.63
Medium	(1.00 ha – 2.00 ha)	157	109.65	42.79	1.63
Large	(more than 2.00 ha)	118	151.90	28.86	4.46
Total –	All classes	360	293.08	35.03	2.32

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	84.23	49.23	21.69	55.91
Female	77.54	67.82	48.79	64.35
Total	80.42	59.86	40.72	61.06

Cost of Cultivation for Udid (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	43,701.91	22,991.46	20,339.20	23,845.07
Cost B	59,478.42	35,776.83	30,057.27	35,362.54
Cost C	63,743.93	38,886.26	32,511.25	38,256.65

Cost of Production of Udid (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	3,455.39	1,675.09	2,120.41	2,079.41
Cost B	4,702.79	2,606.60	3,133.55	3,083.78
Cost C	5,040.05	2,833.14	3,389.38	3,336.16

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	66,188.76	61,519.60	44,925.32	53,421.49
By-product	95.14	264.48	177.09	200.97
Total	66,283.90	61,784.08	45,102.41	53,622.46

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha.
	Unit	Quantity			
Seed	Kg	5,192.50	4,76,120.00	293.08	1,624.55
Fertilizer	Kg	42,504.00	6,54,305.00	241.08	2,714.08
Manures	MT	418.14	8,29,570.00	151.95	5,459.49
Plant protection chemicals	L	126.35	1,64,890.00	69.20	2,382.80
Diesel (excluding irrigation)	₹	-	7,670.00	293.08	26.17
Repair & Maintenance of Machinery & Equipments	₹	-	10,102.88	293.08	34.47
Other Expenses	₹	-	92,490.00	293.08	315.58
Irrigation Charges	₹	-	1,25,213.39	293.08	427.24
Incidental Charges	₹	-	6,82,435.00	293.08	2,328.51

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			19	68	72	201	360
Average Household size			5	7	6	5	6
Principle source of income	Cultivation		19	68	72	201	360
	Livestock		3	8	1	7	19
	Other Agricultural Activities		0	0	0	0	0
	Other		2	6	2	0	10
Cultivated Area (ha.)	Own land	Irrigated	41	39	110	221	411
		Rainfed	11	106	57	247	421
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	2	0	3	5
Awareness of Minimum Support price (Yes)			2	0	9	12	23

Season: Kharif Category: Oilseeds Crop: Groundnut

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Arachis hypogaea***
Local Name: *Bhuimug*
Harvesting Period: September to December
Common Varieties (major) in the State: 305, Dhanlaxmi, JL 24, Kalu Balu, Laxmi, Local, Mahabeej, Phule Pragati, SB11, SN55, TA24, TAG24, Vaishali.

No.	Districts
1	Akola
2	Beed
3	Dhule
4	Kolhapur
5	Nanded
6	Nashik
7	Osmanabad
8	Sangli
9	Satara
10	Wardha
11	Yavatmal

Major findings of the Survey:

1. Working capital for Groundnut ranges from ₹ 24,962.62 per ha. in Dhule to ₹ 1,28,295.87 per ha. in Nanded.
2. The price realization for Groundnut ranges from ₹ 3,667.51 per quintal in Dhule to ₹ 4,731.00 per quintal in Beed and Nanded district.
3. The productivity of Groundnut ranges from 11.87 quintals per ha. in Dhule to 27.91 quintals per ha.in Sangli.
4. The contribution of cultivating Groundnut ranges from ₹ (-)31,387.04 per ha. in Nanded to ₹ 76,691.68 per ha. in Akola district.
5. Use of Manure is higher than that of fertilizer in case of Groundnut at 12.23 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	3	2	3	2	1	11
Talukas	0	6	3	5	4	2	20
Villages	0	12	8	11	8	4	43
Farmer/Holdings	0	60	40	60	40	20	220

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	45	11.03	35.26	0.70
Medium	(1.00 ha – 2.00 ha)	120	36.35	19.84	1.53
Large	(more than 2.00 ha)	55	37.58	20.58	3.32
Total –	All classes	220	84.96	21.40	1.80

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	54.61	30.71	14.06	25.73
Female	69.15	80.24	84.11	79.41
Total	66.74	71.88	58.38	67.46

Cost of Cultivation for Groundnut (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	68,173.78	60,556.03	49,318.92	56,574.55
Cost B	89,789.12	79,998.02	65,234.34	74,738.80
Cost C	95,550.68	86,388.67	70,445.89	80,526.23

Cost of Production of Groundnut (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,739.37	2,727.65	2,430.70	2,606.60
Cost B	3,607.92	3,603.38	3,215.09	3,443.50
Cost C	3,839.43	3,891.24	3,471.94	3,710.15

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,09,873.98	99,114.99	81,732.84	92,823.21
By-product	1,446.06	1,217.88	468.87	916.20
Total	1,11,320.04	1,00,332.87	82,201.70	93,739.41

Inputs under consideration for valuation of Gross Value Added:

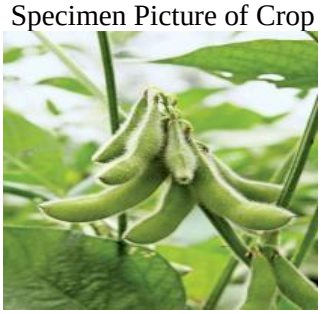
Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	8,403.00	8,93,816.00	84.96	10,520.43
Fertilizer	Kg	30,995.00	4,41,620.00	73.86	5,979.15
Manures	MT	439.50	5,94,910.00	34.80	17,095.11
Plant protection chemicals	L	348.11	1,26,402.00	36.50	3,463.07
Diesel (excluding irrigation)	₹	-	18,200.00	84.96	214.22
Repair & Maintenance of Machinery & Equipments	₹	-	8,212.17	84.96	96.66
Other Expenses	₹	-	23,870.00	84.96	280.96
Irrigation Charges	₹	-	1,50,035.85	84.96	1,765.96
Incidental Charges	₹	-	2,20,375.00	84.96	2,593.87

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			6	33	68	113	220
Average Household size			6	5	5	5	5
Principle source of income	Cultivation		6	25	62	107	200
	Livestock		0	0	6	7	13
	Other Agricultural Activities		0	0	1	0	1
	Other		0	0	10	5	15
Cultivated Area (ha.)	Own land	Irrigated	8	47	112	156	322
		Rainfed	0	0	45	30	75
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			1	3	5	3	12

Season: Kharif Category: Oilseeds Crop: Soyabean

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Glycine max***
Local Name: Soybean
Harvesting Period: September to November
Common Varieties (major) in the State: Mahabeej, Eagle, Mahico, Soya Seeds

No.	Districts	No.	Districts
1	Ahmednagar	14	Nagpur
2	Akola	15	Latur
3	Amravati	16	Nanded
4	Aurangabad	17	Nandurbar
5	Beed	18	Nashik
6	Bhandara	19	Osmanabad
7	Buldhana	20	Parbhani
8	Chandrapur	21	Pune
9	Dhule	22	Sangli
10	Hingoli	23	Satara
11	Jalna	24	Wardha
12	Jalgaon	25	Washim
13	Kolhapur	26	Yavatmal

Major findings of the Survey:

1. The working capital of Soyabean ranges from district to district. It ranges from 17,049.94 per ha. in Buldhana to ₹ 43,832.34 per ha. in Bhandara.
2. The price realization of Soyabean ranges from ₹2,825.95 per quintal in Nandurbar to ₹4,175.81 per quintal in Jalgaon with average rate of ₹ 3,375.82 per quintal.
3. The productivity of Soyabean is ranges from 13.83 quintals per ha. in Ahmednagar to 29.95 quintals per ha. in Latur.
4. The contribution of Soyabean cultivation ranges from ₹4,174.91 per ha. in Osmanabad to ₹ 67,887.57 per ha. in Latur.
5. The percent contribution of hired labour and mechanical power is 45.60 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	5	8	5	4	26
Talukas	0	8	10	16	10	7	51
Villages	0	16	21	34	20	15	106
Farmer/Holdings	0	80	100	160	100	80	520

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	82	52.48	85.81	0.75
Medium	(1.00 ha – 2.00 ha)	213	191.52	53.09	1.69
Large	(more than 2.00 ha)	225	365.60	36.91	4.40
Total –	All classes	520	609.60	43.16	2.72

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	37.06	49.12	61.68	53.91
Female	82.10	78.59	87.86	83.93
Total	68.26	67.42	78.91	73.43

Cost of Cultivation for Soyabean (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	41,330.54	36,303.05	32,942.76	34,720.57
Cost B	56,626.90	51,984.91	46,912.71	49,342.55
Cost C	60,251.14	54,440.52	48,193.48	51,194.17

Cost of Production of Soyabean (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,070.67	1,700.36	1,685.49	1,723.29
Cost B	2,837.02	2,434.86	2,400.26	2,449.03
Cost C	3,018.60	2,549.88	2,465.79	2,540.93

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	67,730.56	73,002.83	64,708.68	67,574.63
By-product	897.48	754.23	659.11	709.51
Total	68,628.05	73,757.06	65,367.79	68,284.15

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	44,642.50	25,33,370.00	609.60	4,155.79
Fertilizer	Kg	1,22,655.00	20,57,894.00	567.00	3,629.44
Manures	MT	1,552.00	21,35,800.00	355.78	6,003.15
Plant protection chemicals	L	1,623.82	12,57,610.00	537.60	2,339.30
Diesel (excluding irrigation)	₹	-	25,389.00	609.60	41.65
Repair & Maintenance of Machinery & Equipments	₹	-	27,869.06	609.60	45.72
Other Expenses	₹	-	1,52,940.00	609.60	250.89
Irrigation Charges	₹	-	2,69,733.26	609.60	442.48
Incidental Charges	₹	-	11,73,813.00	609.60	1,925.55

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			38	32	205	245	520
Average Household size			4	6	5	5	5
Principle source of income	Cultivation		37	32	205	243	517
	Livestock		0	0	16	23	39
	Other Agricultural Activities		3	0	11	4	18
	Other		0	0	11	8	19
Cultivated Area (ha.)	Own land	Irrigated	2	22	315	389	729
		Rainfed	80	38	273	274	665
	Leased land	Irrigated	0	0	2	1	4
		Rainfed	0	0	11	3	14
Awareness of Minimum Support price (Yes)			5	4	29	23	61

Season: Kharif Category: Fibre Crop: Cotton

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Gossypium hirsutum***
Local Name: Kapus, Rui, Kapas
Harvesting Period: December - January
Common Varieties (major) in the State : 303, 7347, 7351, Ajay, Ajit, Ajit 155, Ajit 199, Ajit 55, Ajit 555, Ankur, ATM, Bhagwan, Bhakti, Boiseeds, Bolgard, Bramha, BT 7351, Chamatkar, CNH – 36, BT Ganesh,Deltapin, First Class, DP 1822 XF, Jadu, Kanak, Laxmi, Kaveri, LH – 900, Local, M – 7351, Mahabij, Maharaja, Mahi- 1, Mahi – 2, Mahyco, Majico, Mallika, Manik, Nandi, Nupur, Nuzividu, PHY 450, Purnima, Rajat, Rashi, Rashi 659, Samrudhi, Super Mallika, Swastik, T – 55, Vikram – 5, 6, 21, Yl-7515.

No.	Districts	No.	Districts
1	Ahmednagar	12	Jalgaon
2	Akola	13	Latur
3	Amravati	14	Nagpur
4	Aurangabad	15	Nanded
5	Beed	16	Nandurbar
6	Buldhana	17	Nashik
7	Chandrapur	18	Osmanabad
8	Dhule	19	Parbhani
9	Gadchiroli	20	Wardha
10	Hingoli	21	Washim
11	Jalna	22	Yavatmal

Major findings of the Survey:

1. The working capital ranges from ₹ 19,772.70 per ha. in Aurangabad to ₹ 59,407.48 per ha. in Osmanabad.
2. Price realization for Cotton ranges from ₹ 3,508.71per quintal in Nandurbar to ₹ 5,469.54 per quintal in Nagpur with average rate of ₹ 4,825.35 per quintal.
3. The productivity of Cotton varies from district to district with range of 6.71 quintals per ha. in Beed to 35.83 quintals per ha. in Latur with average productivity 19.08 per ha.
4. The contribution of cultivating Cotton ranges from ₹ 3,649.99 per ha. in Dhule to ₹1,08,177.41 per ha. in Latur.
5. The hired labour contribution in case of Cotton is about 33.25% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	5	8	5	4	22
Talukas	0	0	10	16	11	7	44
Villages	0	0	20	32	20	17	89
Farmer/Holdings	0	0	100	160	100	80	440

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	53.00	39.60	80.16	0.93
Medium	(1.00 ha – 2.00 ha)	159.00	147.60	55.68	1.67
Large	(more than 2.00 ha)	228.00	365.20	33.47	4.79
Total –	All classes	440.00	552.40	39.30	3.19

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	55.96	53.07	47.81	50.42
Female	89.68	85.34	79.75	82.66
Total	82.24	76.49	71.88	74.54

Cost of Cultivation for Cotton (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	47,312.13	44,428.92	41,117.22	42,446.20
Cost B	67,239.87	64,819.09	60,284.88	61,995.00
Cost C	71,170.43	68,410.55	63,594.03	65,424.12

Cost of Production of Cotton (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,759.29	2,361.01	2,218.94	2,293.42
Cost B	3,921.50	3,444.57	3,253.35	3,349.67
Cost C	4,150.73	3,635.43	3,431.93	3,534.95

Gross Value of Output (₹): Value in

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	87,007.58	91,819.85	86,711.17	88,097.45
By-product	232.32	164.63	200.99	193.52
Total	87,239.90	91,984.49	86,912.16	88,290.97

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	2,899.09	27,05,720.00	549.20	4,926.66
Fertilizer	Kg	1,65,439.00	26,61,512.00	546.80	4,867.43
Manures	MT	2,100.00	19,51,640.00	365.00	5,346.96
Plant protection chemicals	L	1,463.44	22,27,195.00	534.20	4,169.22
Diesel (excluding irrigation)	₹	-	15,406.00	552.40	27.89
Repair & Maintenance of Machinery & Equipments	₹	-	26,333.81	552.40	47.67
Other Expenses	₹	-	3,12,832.00	552.40	566.31
Irrigation Charges	₹	-	4,06,600.94	552.40	736.06
Incidental Charges	₹	-	11,47,253.00	552.40	2,076.85

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			14	35	167	224	440
Average Household size			5	6	5	5	5
Principle source of income	Cultivation		14	34	166	224	438
	Livestock		0	1	23	24	48
	Other Agricultural Activities		3	1	12	7	23
	Other		0	0	8	5	13
Cultivated Area (ha.)	Own land	Irrigated	27	16	372	537	953
		Rainfed	18	28	171	228	444
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	9	9
Awareness of Minimum Support price (Yes)			4	6	42	58	110

Season: Kharif Category: Spices Crop: Ginger

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Zingiber officinale***
Local Name: Ale
Harvesting Period: February to April
Common Varieties (major) in the State: Karakkal, Mahima, Maran, Rio De Jenerio and Local

No.	Districts	No.	Districts
1	Akola	14	Washim
2	Amravati	15	Yavatmal
3	Aurangabad		
4	Beed		
5	Bhandara		
6	Hingoli		
7	Jalna		
8	Jalgaon		
9	Kolhapur		
10	Osmanabad		
11	Sangli		
12	Satara		
13	Sindhudurg		

Major findings of the Survey:

1. The working capital of Ginger ranges from ₹1,14,063.51 per ha. in Jalna to ₹ 1,77,952.01 per Ha. in Jalgaon.
2. Productivity of Ginger ranges from 111.00 quintals per ha. in Sindhudurg 193.16 quintals per Ha. in Jalgaon.
3. Price realization of Ginger ranges from ₹ 2,201.77 per quintal in Jalgaon to ₹ 2,836.08 per quintal in Yavatmal.
4. The contribution of cultivating Ginger (Sales realization – working capital-interest on working capital) ranges from ₹ 1,63,606.50 per ha. in Sindhudurg to ₹ 2,92,784.79 per ha. in Yavatmal.
5. The expenses incurred for Ginger seed are more at 52.75% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	3	1	5	4	1	15
Talukas	2	6	2	10	8	3	31
Villages	4	12	5	20	16	4	61
Farmer/Holdings	20	60	20	100	80	20	300

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	59	10.74	26.25	0.69
Medium	(1.00 ha – 2.00 ha)	162	48.80	19.46	1.55
Large	(more than 2.00 ha)	79	57.73	13.41	5.45
Total –	All classes	300	117.26	16.23	2.41

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	19.04	20.16	55.29	41.17
Female	57.64	57.51	78.68	70.28
Total	44.37	43.45	70.09	59.57

Cost of Cultivation for Ginger (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,60,333.36	1,59,558.70	1,74,758.65	1,67,112.42
Cost B	2,28,617.97	2,33,360.47	2,47,633.22	2,39,952.62
Cost C	2,55,969.87	2,53,980.35	2,65,969.20	2,60,064.50

Cost of Production of Ginger (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,071.82	975.75	996.29	994.13
Cost B	1,528.30	1,427.07	1,411.75	1,427.45
Cost C	1,711.14	1,553.16	1,516.28	1,547.09

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,96,168.03	4,29,336.48	4,22,489.61	4,22,929.12
By-product	0.00	0.00	0.00	0.00
Total	3,96,168.03	4,29,336.48	4,22,489.61	4,22,929.12

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	1,89,506.00	95,40,220.00	117.26	81,356.77
Fertilizer	Kg	48,800.00	8,59,930.00	115.26	7,460.53
Manures	MT	851.20	9,49,470.00	84.70	11,209.27
Plant protection chemicals	L	729.23	11,28,695.00	109.32	10,325.07
Diesel (excluding irrigation)	₹	-	0.00	117.26	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	9,733.26	117.26	83.00
Other Expenses	₹	-	0.00	117.26	0.00
Irrigation Charges	₹	-	2,45,973.75	117.26	2,097.61
Incidental Charges	₹	-	3,82,055.00	117.26	3,258.08

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	2	81	217	300
Average Household size			0	7	5	6	6
Principle source of income	Cultivation		0	2	81	217	300
	Livestock		0	0	2	0	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	3	113	606	722
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Spices Crop: Turmeric

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Curcuma longa***
Local Name: Halad
Harvesting Period: February to April
Common Varieties (major) in the State: Selam, Phule Swarupa, Swarna, Krishna and Waigaon

No.	Districts	No.	Districts
1	Akola	14	Ratnagiri
2	Amravati	15	Sangli
3	Aurangabad	16	Satara
4	Bhandara	17	Sindhudurg
5	Buldhana		
6	Hingoli		
7	Jalna		
8	Jalgaon		
9	Kolhapur		
10	Nanded		
11	Nandurbar		
12	Osmanabad		
13	Parbhani		

Major findings of the Survey:

1. The working capital of Turmeric ranges from ₹ 80,657.50 per ha. in Jalgaon to ₹ 3,46,955.41 per ha. in Aurangabad district.
2. Price realization for Turmeric ranges from ₹ 1,431.55 per quintal in Satara to ₹ 7,128.09 per quintal in Jalna.
3. The productivity of Turmeric varies from district to district with range of 38.62 quintals per ha. in Jalgaon to 270.98 quintals per ha. in Satara.
4. The contribution of cultivating Turmeric ranges from ₹ 91,688.12 per ha. Parbhani to ₹ 3,05,399.15 per ha. in Ratnagiri.
5. Unlike other field crops (cereals and pulses) the highest head of cost in Turmeric is seed at 57.62%.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	2	3	2	6	3	1	17
Talukas	3	6	3	12	6	1	31
Villages	5	12	5	22	12	4	60
Farmer/Holdings	40	60	40	120	60	20	340

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	46	8.64	30.55	0.61
Medium	(1.00 ha – 2.00 ha)	140	56.48	23.71	1.70
Large	(more than 2.00 ha)	154	181.67	25.62	4.61
Total –	All classes	340	246.792	25.29	2.87

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	41.05	49.93	52.96	51.08
Female	60.06	73.58	76.16	74.35
Total	52.79	65.54	68.53	66.54

Cost of Cultivation for Turmeric (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,98,817.63	2,07,858.59	1,56,603.49	1,69,812.28
Cost B	2,72,837.51	2,87,801.11	2,09,146.46	2,29,378.15
Cost C	2,92,339.83	2,98,771.82	2,15,178.89	2,37,012.39

Cost of Production of Turmeric (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,640.71	2,936.27	2,809.03	2,836.05
Cost B	3,623.85	4,065.56	3,751.50	3,830.87
Cost C	3,882.88	4,220.54	3,859.71	3,958.37

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	4,27,208.33	4,62,036.22	3,01,999.61	3,43,011.12
By-product	121.53	65.95	33.58	44.07
Total	4,27,329.86	4,62,102.17	3,02,033.19	3,43,055.18

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	7,24,380.00	2,16,96,045.00	246.79	87,912.27
Fertilizer	Kg	1,02,895.00	20,02,760.00	235.89	8,490.16
Manures	MT	5,151.00	24,66,750.00	224.39	10,993.04
Plant protection chemicals	L	759.13	12,72,725.00	168.51	7,552.73
Diesel (excluding irrigation)	₹	-	0.00	246.79	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	8,427.81	246.79	34.15
Other Expenses	₹	-	1,32,460.00	246.79	536.73
Irrigation Charges	₹	-	3,71,777.98	246.79	1,506.44
Incidental Charges	₹	-	14,13,030.00	246.79	5,725.59

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			5	0	113	222	340
Average Household size			3	0	6	6	6
Principle source of income	Cultivation		5	0	110	222	337
	Livestock		0	0	0	8	8
	Other Agricultural Activities		0	0	0	2	2
	Other		0	0	2	4	6
Cultivated Area	Own land	Irrigated	15	0	314	638	967
		Rainfed	0	0	8	0	8
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Spices Crop: Red Chilli

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Capsicum annuum***
Local Name: Lal mirchi
Harvesting Period: September to December
Common Varieties (major) in the State: Arka Mohini, Corolina, Jamie, Oliver, Pusa Jwala, Pusa Sadabahar, Rashi, RashiSonal, Scoville, Varana.

No.	Districts
1	Beed
2	Bhandara
3	Gondia
4	Nandurbar

Major findings of the Survey:

1. Working capital of Red Chilli ranges from ₹ 68,238.37 per ha. in Bhandara to ₹1,12,296.12 per ha. in Beed.
2. Price realization for Red Chilli ranges from ₹ 3,067.41 per quintal in Beed to ₹ 4,068.70 per quintal in Nandurbar.
3. The productivity of Red Chilli ranges from 38.48 quintals per ha. in Bhandara to 44.13 quintals per ha. in Gondia with average productivity of 41.03 quintals per ha.
4. The contribution of cultivating Red Chilli ranges from ₹ 2,006.95 per ha. in Beed to ₹ 77,330.25 per ha. in Gondia district.
5. The expenditure incurred in connection with Hired Labour and Mechanical Power constitutes 55.61 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	1	0	2	4
Talukas	0	0	2	2	0	3	7
Villages	0	0	4	4	0	8	16
Farmer/Holdings	0	0	20	20	0	40	80

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	21	13.10	78.16	0.80
Medium	(1.00 ha – 2.00 ha)	24	15.40	42.40	1.48
Large	(more than 2.00 ha)	35	30.80	18.29	4.81
Total –	All classes	80	59.30	26.77	2.77

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	95.35	61.43	53.85	67.04
Female	96.95	82.74	86.93	87.77
Total	96.21	73.15	77.10	80.08

Cost of Cultivation for Red Chilli (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	93,931.86	1,00,942.89	92,461.98	94,989.15
Cost B	1,21,059.24	1,28,763.94	1,18,048.62	1,21,496.43
Cost C	1,23,280.61	1,46,851.61	1,31,027.52	1,33,425.61

Cost of Production of Red Chilli (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,321.71	2,540.07	2,172.26	2,296.31
Cost B	2,992.22	3,240.14	2,773.38	2,937.11
Cost C	3,047.12	3,695.29	3,078.30	3,225.49

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,54,832.06	1,58,402.08	1,45,711.75	1,51,022.16
By-product	0.00	0.00	0.00	0.00
Total	1,54,832.06	1,58,402.08	1,45,711.75	1,51,022.16

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	5,94,550.00	5,67,900.00	59.30	9,576.73
Fertilizer	Kg	32,150.00	4,06,480.00	59.30	6,854.64
Manures	MT	349.00	5,47,200.00	48.00	11,400.00
Plant protection chemicals	L	298.27	3,29,628.00	58.70	5,615.47
Diesel (excluding irrigation)	₹	-	0.00	59.30	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	3,285.45	59.30	55.40
Other Expenses	₹	-	4,000.00	59.30	67.45
Irrigation Charges	₹	-	82,281.49	59.30	1,387.55
Incidental Charges	₹	-	3,98,351.00	59.30	6,717.55

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			7	18	31	24	80
Average Household size			6	8	4	6	6
Principle source of income	Cultivation		7	18	31	24	80
	Livestock		2	0	0	4	6
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	18	17	100	77	212
		Rainfed	0	0	9	0	9
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			2	0	0	2	4

Season: Kharif Category: Spices Crop: Coriander seed

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Coriandrum sativum***
Local Name: Dhane
Harvesting Period: September to December
Common Varieties (major) in the State: Local seeds

No.	Districts
1	Jalgaon

Major findings of the Survey:

1. Working capital of coriander Seed is ₹ 21,117.24 per Ha.
2. Price realization of Coriander Seed is ₹ 5,638.13 per quintal.
3. The contribution of cultivating Coriander Seed is ₹ 71,967.19 per Ha.
4. Productivity of Coriander Seed is 16.75 quintals per Ha.
5. The use of Manure is higher than that of Fertilizer in case of Coriander Seed.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	0	0	0	1
Talukas	0	0	2	0	0	0	2
Villages	0	0	4	0	0	0	4
Farmer/Holdings	0	0	20	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	01	0.80	20.00	4.00
Medium	(1.00 ha – 2.00 ha)	05	6.40	32.99	3.88
Large	(more than 2.00 ha)	14	27.60	21.84	9.03
Total –	All classes	20	34.80	23.23	7.49

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	58.06	44.86	35.27	40.06
Female	71.11	75.08	76.93	76.39
Total	65.79	67.66	70.63	69.79

Cost of Cultivation for Coriander Seed (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	35,489.63	25,998.11	21,255.88	22,455.23
Cost B	50,989.13	47,533.29	36,053.84	38,508.34
Cost C	59,114.13	52,861.42	39,731.37	42,591.67

Cost of Production of Coriander Seed (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,774.48	1,241.70	1,355.50	1,340.84
Cost B	2,549.46	2,270.25	2,299.18	2,299.40
Cost C	2,955.71	2,524.72	2,533.70	2,543.22

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	90,000.00	1,27,015.63	86,992.75	94,422.41
By-product	0.00	0.00	0.00	0.00
Total	90,000.00	1,27,015.63	86,992.75	94,422.41

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	796.00	59,700.00	34.80	1,715.52
Fertilizer	Kg	2,450.00	15,010.00	34.80	431.32
Manures	MT	24.00	37,500.00	15.20	2,467.11
Plant protection chemicals	L	79.00	79,000.00	34.80	2,270.11
Diesel (excluding irrigation)	₹	-	0.00	34.80	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,701.27	34.80	48.89
Other Expenses	₹	-	0.00	34.80	0.00
Irrigation Charges	₹	-	13,408.82	34.80	385.31
Incidental Charges	₹	-	55,160.00	34.80	1,585.06

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	0	20	20
Average Household size			0	0	0	5	5
Principle source of income	Cultivation		0	0	0	20	20
	Livestock		0	0	0	11	11
	Other Agricultural Activities		0	0	0	1	1
	Other		0	0	0	8	8
Cultivated Area	Own land	Irrigated	0	0	0	100	100
		Rainfed	0	0	0	21	21
	Leased land	Irrigated	0	0	0	8	8
		Rainfed	0	0	0	21	21
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Spices Crop: Ajwain

Specimen Picture of Crop

General Profile of Crop:

Scientific Name: ***Trachyspermum ammi***
Local Name: Ova
Harvesting Period:120-140 days
Common Varieties (major) in the State: Pratap, Gujrat, Local

No.	Districts
1	Nandurbar

Major findings of the Survey:

1. Average working capital for Ajwain is ₹ 26,872.03 per ha.
2. Price realized for Ajwain is ₹ 14,304.86 per quintal.
3. Average productivity of Ajwain is 16.71 quintals per ha.
4. The contribution of cultivating Ajwain is about ₹ 2,10,498.22 per ha.
5. Highest Expenditure is under the head Seed at 51.99 % of the working capital in case of Ajwain.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	0	0	0	1
Talukas	0	0	1	0	0	0	1
Villages	0	0	2	0	0	0	2
Farmer/Holdings	0	0	20	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	19	12.08	93.79	0.68
Medium	(1.00 ha – 2.00 ha)	0	0	0	0
Large	(more than 2.00 ha)	01	2.40	100.00	2.40
Total –	All classes	20	14.48	94.76	0.76

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	100	0	100	100
Female	100	0	100	100
Total	100	0	100	100

Cost of Cultivation for Ajwain (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	29,761.75	0	22,599.50	28,574.64
Cost B	72,561.63	0	50,000.90	68,822.28
Cost C	72,561.63	0	50,000.90	68,822.28

Cost of Production of Ajwain (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,695.86	0	1,807.96	1,709.76
Cost B	4,134.64	0	4,000.07	4,117.96
Cost C	4,134.64	0	4,000.07	4,117.96

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,54,286.01	0	1,62,500.00	2,39,072.86
By-product	0.00	0	0.00	0.00
Total	2,54,286.01	0	1,62,500.00	2,39,072.86

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	137.00	2,02,300.00	14.48	13,970.99
Fertilizer	Kg	0.00	0.00	0.00	0.00
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	0.00	0.00	0.00	0.00
Diesel (excluding irrigation)	₹	-	0.00	14.48	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,450.00	14.48	100.14
Other Expenses	₹	-	0.00	14.48	0.00
Irrigation Charges	₹	-	0.00	14.48	0.00
Incidental Charges	₹	-	56,507.00	14.48	3,902.42

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	20	0	0	20
Average Household size			0	6	0	0	6
Principle source of income	Cultivation		0	20	0	0	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	15	0	0	15
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Beans

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Phaseolus vulgaris***
Local Name: Wal, Walpapdi, Chavali, Ghewda
Harvesting Period: October to February
Common Varieties (major) in the State: Arka bold, Arkakartik, Ashoka Naveli, Pavan Naveli, Ankur, Phule Sadabahar, JG-3, Frozen Green

No.	Districts	No.	Districts
1	Ahmednagar	14	Ratnagiri
2	Buldhana	15	Solapur
3	Chandrapur	16	Satara
4	Gadchiroli	17	Thane
5	Gondia	18	Wardha
6	Jalna	19	Washim
7	Kolhapur		
8	Latur		
9	Nagpur		
10	Nashik		
11	Osmanabad		
12	Palghar		
13	Pune		

Major findings of the Survey:

1. The working capital of Beans ranges from ₹ 15,516.39 per Ha. in Ahmednagar to ₹ 1,71,121.73 per Ha. in Gondia.
2. Productivity of Beans ranges from 7.71 quintals per Ha. in Ratnagiri to 223.53 quintals per Ha. in Nashik district.
3. Price realization of Beans ranges from ₹ 1,153.42 per quintal in Thane to 4,347.10per quintal in Satara.
4. The contribution of cultivating Beans (Sales realization – working capital-interest on working capital) ranges from ₹12,830.45 per Ha. in Ratnagiri to ₹3,13,546.09 per Ha. in Wardha.
5. Irrigation charges in case of Beans are 1.89% which are negligible. (Expenses in connection with Manure and Fertilizer contributes 22.10 % of the average working capital.)

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	3	4	2	3	2	5	19
Talukas	5	8	4	6	5	11	39
Villages	9	19	8	12	8	20	76
Farmer/Holdings	60	80	40	60	40	100	380

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	80	19.56	35.65	0.69
Medium	(1.00 ha – 2.00 ha)	182	69.90	22.85	1.68
Large	(more than 2.00 ha)	118	61.80	15.35	3.41
Total –	All classes	380	151.26	19.82	2.01

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	15.77	8.54	16.10	11.88
Female	60.92	65.62	57.19	61.62
Total	44.12	37.39	40.64	39.54

Cost of Cultivation for Beans (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,00,160.80	96,004.14	1,06,458.39	1,00,812.93
Cost B	1,40,930.57	1,41,859.00	1,60,344.28	1,49,291.44
Cost C	1,67,295.61	1,71,635.11	1,81,784.41	1,75,220.63

Cost of Production of Beans (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	851.25	727.54	751.04	751.73
Cost B	1,197.74	1,075.04	1,131.20	1,113.21
Cost C	1,421.81	1,300.70	1,282.45	1,306.56

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,42,787.42	2,73,331.02	3,20,912.65	288821.64
By-product	0.00	42.92	456.31	206.27
Total	2,42,787.42	2,73,373.93	3,21,368.96	289027.91

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	1,584.00	7,19,485.00	151.26	4,756.61
Fertilizer	Kg	1,00,010.50	19,98,164.00	150.66	13,262.74
Manures	MT	566.97	10,82,255.00	76.71	14,108.40
Plant protection chemicals	L	677.93	12,24,495.00	148.36	8,253.54
Diesel (excluding irrigation)	₹	-	21,950.00	151.26	145.11
Repair & Maintenance of Machinery & Equipments	₹	-	7,260.34	151.26	48.00
Other Expenses	₹	-	90,372.00	151.26	597.46
Irrigation Charges	₹	-	2,73,189.41	151.26	1,806.09
Incidental Charges	₹	-	17,20,820.00	151.26	11,376.57

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			31	56	117	176	380
Average Household size			5	5	5	6	5
Principle source of income	Cultivation		30	56	117	173	376
	Livestock		2	1	13	21	37
	Other Agricultural Activities		0	0	0	2	2
	Other		2	6	4	2	14
Cultivated Area (ha.)	Own land	Irrigated	60	108	184	331	683
		Rainfed	9	2	40	29	80
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			2	0	5	13	20

Season: Kharif Category: Vegetables Crop: Cabbage

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Brassica oleracea***
Local Name: *Kobi, Patta Gobi*
Harvesting Period: November to January
Common Varieties (major) in the State: Syngenta, Veer-333, BC-90, Snowball, Green gold.

No.	Districts
1	Buldhana
2	Chandrapur
3	Dhule
4	Kolhapur
5	Nashik
6	Pune

Major findings of the Survey:

1. The working capital of Cabbage ranges from district to district. It ranges from ₹47,600.89 per ha. in Dhule to ₹ 1,36,038.68 per Ha. in Pune.
2. The price realization of Cabbage ranges from ₹ 813.07 per quintal in Buldhana to ₹1,188.94 per quintal in Pune with average rate of ₹1,003.84 per quintal.
3. The productivity of Cabbage ranges from 149.55 quintals per Ha. in Buldhana district to 326.13 quintals per Ha. in Kolhapur district.
4. The contribution of Cabbage cultivation ranges from ₹56,565.65 per Ha. in Buldhana to ₹ 2,52,563.31 per Ha. in Dhule district.
5. The percent contribution of incidental charges is 11.96% of the average working capital for Cabbage. (The expense for Seed and Fertilizer contributes 30.15% of the average working capital.)

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	2	2	0	1	1	6
Talukas	0	4	4	0	4	2	14
Villages	0	8	9	0	4	4	25
Farmer/Holdings	0	40	40	0	20	20	120

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	18	4.60	31.51	0.81
Medium	(1.00 ha – 2.00 ha)	70	29.28	26.38	1.59
Large	(more than 2.00 ha)	32	24.60	19.43	3.96
Total –	All classes	120	58.48	23.19	2.10

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	23.40	22.06	32.30	26.23
Female	83.76	79.89	83.44	81.75
Total	61.80	58.92	65.89	62.06

Cost of Cultivation for Cabbage (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,24,458.16	96,686.58	89,921.20	96,025.17
Cost B	1,81,716.79	1,40,794.67	1,33,471.70	1,40,933.12
Cost C	2,04,249.40	1,58,195.62	1,47,758.28	1,57,427.65

Cost of Production of Cabbage (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	402.61	378.83	330.11	360.06
Cost B	587.83	551.65	489.99	528.45
Cost C	660.72	619.83	542.43	590.30

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,36,130.43	2,58,883.20	2,55,941.06	2,63,721.79
By-product	0.00	0.00	0.00	0.00
Total	3,36,130.43	2,58,883.20	2,55,941.06	2,63,721.79

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	10,65,308.68	8,37,580.00	58.48	14,322.50
Fertilizer	Kg	32,045.00	6,95,354.00	58.08	11,972.35
Manures	MT	100.15	1,75,750.00	23.70	7,415.61
Plant protection chemicals	L	476.95	4,84,780.00	58.08	8,346.76
Diesel (excluding irrigation)	₹	-	0.00	58.48	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	3,839.80	58.48	65.66
Other Expenses	₹	-	74,860.00	58.48	1,280.10
Irrigation Charges	₹	-	1,29,047.56	58.48	2,206.70
Incidental Charges	₹	-	6,31,070.00	58.48	10,791.21

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			10	4	46	60	120
Average Household size			7	4	5	6	6
Principle source of income	Cultivation		10	4	46	60	120
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	30	6	79	113	228
		Rainfed	0	0	0	24	24
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	4	4

Season: Kharif Category: Vegetables Crop: Cauliflower

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Brassica oleracea var. botrytis***
Local Name: *Flower, Phul Gobi*
Harvesting Period: October to November
Common Varieties (major) in the State: 93Y30 Mahico, Syngenta15-22, Hisar-1, Snowball, Golden Maker.

No.	Districts	No.	Districts
1	Akola	14	Pune
2	Aurangabad	15	Sangli
3	Buldhana	16	Satara
4	Chandrapur	17	Yavatmal
5	Dhule		
6	Hingoli		
7	Kolhapur		
8	Latur		
9	Nanded		
10	Nandurbar		
11	Nashik		
12	Osmanabad		
13	Parbhani		

Major findings of the Survey:

1. The working capital of Cauliflower ranges from ₹42,550.65 per Ha. in Nanded to ₹1,53,668.16per Ha. in Aurangabad district.
2. Price realization for Cauliflower ranges from ₹707.10 per quintal in Yavatmal to ₹ 1,877.27 per quintal in Akola with average rate of ₹ 1,045.61 per quintal.
3. The productivity of Cauliflower varies from district to district with range of 74.37 quintals per Ha. in Akola to 369.93 quintals per Ha. in Pune with average productivity 222.65 quintals per Ha.
4. The contribution of cultivating Cauliflower ranges from ₹15,172.07 per Ha. in Buldhana to ₹2,47,999.61 per Ha. in Chandrapur.
5. The contribution of incidental charges in case of Cauliflower is 10.59% whereas Seed and Fertilizer expenses contribute about 33.72% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	3	6	3	1	17
Talukas	0	8	8	11	5	2	34
Villages	0	17	9	23	13	4	66
Farmer/Holdings	0	80	60	120	60	20	340

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	53	20.30	30.48	1.26
Medium	(1.00 ha – 2.00 ha)	171	74.44	6.41	6.79
Large	(more than 2.00 ha)	116	68.22	9.71	6.06
Total –	All classes	340	162.96	8.44	5.68

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	61.62	41.85	43.50	46.43
Female	77.48	77.12	85.07	79.79
Total	71.47	63.65	70.29	67.35

Cost of Cultivation for Cauliflower (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,06,581.15	1,04,727.72	92,283.65	99,749.14
Cost B	1,48,925.74	1,41,881.28	1,28,348.29	1,37,093.49
Cost C	1,64,672.05	1,55,795.17	1,36,827.48	1,48,960.52

Cost of Production of Cauliflower (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	460.63	457.91	415.17	440.69
Cost B	643.64	620.36	577.41	605.67
Cost C	711.70	681.20	615.56	658.10

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,47,564.04	2,16,329.33	2,10,816.18	2,17,912.28
By-product	148.18	347.26	68.89	205.93
Total	2,47,712.22	2,16,676.59	2,10,885.08	2,18,118.21

Inputs under consideration for valuation of Gross Value Added:

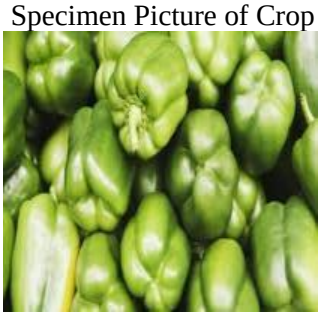
Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	32,29,772.00	31,67,890.00	162.96	19,439.68
Fertilizer	Kg	1,04,320.00	20,07,664.00	162.16	12,380.76
Manures	MT	659.40	6,73,800.00	71.66	9,402.74
Plant protection chemicals	L	604.09	13,31,268.00	162.16	8,209.60
Diesel (excluding irrigation)	₹	-	0.00	162.96	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	6,843.62	162.96	42.00
Other Expenses	₹	-	3,43,970.00	162.96	2,110.76
Irrigation Charges	₹	-	2,61,801.69	162.96	1,606.54
Incidental Charges	₹	-	15,22,060.00	162.96	9,340.08

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			12	9	106	213	340
Average Household size			6	5	5	6	6
Principle source of income	Cultivation		12	9	104	213	338
	Livestock		2	0	2	17	21
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	1	3	4
Cultivated Area (ha.)	Own land	Irrigated	16	12	217	453	699
		Rainfed	8	0	8	53	69
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	224	0	112	826	1,162
Awareness of Minimum Support price (Yes)			0	0	6	29	35

Season: Kharif Category: Vegetables Crop: Capsicum

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Capsicum annuum***
Local Name: Shimla Mirchi, Dhobali Mirchi
Harvesting Period: October to February
Common Varieties (major) in the State: PusaJwala, PusaSadabahar, ArkaMohini, Ruby King and World Beater.

No.	Districts
1	Akola
2	Aurangabad
3	Gondia

Major findings of the Survey:

1. The working capital of Capsicum ranges from ₹ 53,410.01 per Ha. in Gondia to ₹1,57,567.21 per Ha. in Akola district.
2. Price realization for Capsicum ranges from ₹2,095.02 per quintal in Akola to ₹2,555.09 per quintal in Gondia with average rate of ₹2,334.00 per quintal.
3. The productivity of Capsicum varies from district to district with range of 129.55 quintals per Ha. in Aurangabad to 214.29 quintals per Ha. in Gondia.
4. The contribution of cultivating Capsicum ranges from ₹1,57,145.67 per Ha. in Aurangabad to ₹4,90,643.60 per Ha. in Gondia.
5. The expenditure incurred under the heads hired labour and mechanical power constitutes 53.52% of the average working capital of Capsicum.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	1	1	3
Talukas	0	0	0	2	3	2	7
Villages	0	0	0	4	4	4	12
Farmer/Holdings	0	0	0	20	20	20	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	13	2.60	26.80	0.75
Medium	(1.00 ha – 2.00 ha)	33	12.92	25.33	1.55
Large	(more than 2.00 ha)	14	6.60	13.87	3.40
Total –	All classes	60	22.12	20.42	1.81

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	38.32	31.27	55.38	42.67
Female	77.03	74.85	88.47	81.19
Total	59.84	58.07	75.72	66.15

Cost of Cultivation for Capsicum (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,52,980.80	1,27,024.79	1,84,065.34	1,47,095.01
Cost B	2,29,719.74	1,87,277.77	2,42,210.77	2,08,656.93
Cost C	2,56,700.51	2,15,559.50	2,73,960.77	2,37,820.58

Cost of Production of Capsicum (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	929.32	789.78	1,164.75	916.81
Cost B	1,395.49	1,164.40	1,532.69	1,300.50
Cost C	1,559.40	1,340.24	1,733.60	1,482.27

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	4,51,311.54	3,53,943.50	3,37,896.97	3,60,600.36
By-product	0.00	0.00	0.00	0.00
Total	4,51,311.54	3,53,943.50	3,37,896.97	3,60,600.36

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area	Value per ha. (₹)
	Unit	Quantity		(in ha.)	
Seed	Kg	4,13,510.00	6,30,060.00	22.12	28,483.73
Fertilizer	Kg	17,780.00	1,85,010.00	21.88	8,455.67
Manures	MT	0	0	0.00	0.00
Plant protection chemicals	L	259.55	1,57,870.00	21.96	7,188.98
Diesel (excluding irrigation)	₹	-	0.00	22.12	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	914.01	22.12	41.32
Other Expenses	₹	-	1,37,500.00	22.12	6,216.09
Irrigation Charges	₹	-	76,808.61	22.12	3,472.36
Incidental Charges	₹	-	1,53,685.00	22.12	6,947.78

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	0	5	53	60
Average Household size			6	0	5	6	6
Principle source of income	Cultivation		2	0	5	53	60
	Livestock		0	0	0	3	3
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	1	1
Cultivated Area (ha.)	Own land	Irrigated	4	0	6	98	108
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	4	4

Season: Kharif Category: Vegetables Crop: Brinjal

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Solanum melongena***
Local Name: *Vangi*
Harvesting Period: November to February
Common Varieties (major) in the State: Mahico, F1 Hybrid, Vaishali, Indo American, Kaveri 474, Sun grow hybrid.

No.	Districts	No.	Districts
1	Amravati	14	Raigad
2	Buldhana	15	Sangli
3	Chandrapur	16	Satara
4	Dhule	17	Sindhudurg
5	Gadchiroli	18	Solapur
6	Hingoli	19	Thane
7	Jalgaon		
8	Nagpur		
9	Nashik		
10	Osmanabad		
11	Palghar		
12	Parbhani		
13	Pune		

Major findings of the Survey:

1. Working capital of Brinjal ranges from ₹ 55,329.81 per Ha. in Chandrapur to ₹ 1,75,117.50 per Ha. in Sindhudurg district.
2. The productivity of Brinjal ranges from 90.44 quintals per Ha. in Thane district to 311.35 quintals per Ha. in Sindhudurg district.
3. The price realized for Brinjal ranges from ₹764.45 per quintal in Gadchiroli to ₹3,074.81 per quintal in Hingoli district.
4. The contribution of cultivating Brinjal ranges from ₹(-)31166.22 per Ha. in Buldhana to ₹ 2,50,986.81 per Ha. in Solapur district.
5. The expenditure under the head Incidental charges constitutes 12.39 % of the average working capital of Brinjal. (Fertilizer and Plant Protection Chemicals contribute 24.56% of the average working capital.)

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	4	4	3	3	2	3	19
Talukas	8	8	7	6	5	5	39
Villages	16	17	13	12	7	12	77
Farmer/Holdings	80	80	60	60	40	60	380

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	105	25.67	35.62	0.69
Medium	(1.00 ha – 2.00 ha)	166	51.24	18.96	1.63
Large	(more than 2.00 ha)	109	47.30	12.69	3.42
Total –	All classes	380	124.21	17.37	1.88

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	11.93	12.46	11.50	12.04
Female	62.90	65.75	64.55	64.82
Total	46.07	52.94	55.77	53.02

Cost of Cultivation for Brinjal (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,31,306.00	1,18,030.74	1,08,731.02	1,17,233.12
Cost B	1,70,705.36	1,56,209.27	1,48,713.35	1,56,350.85
Cost C	1,99,731.14	1,88,444.82	1,78,142.53	1,86,854.35

Cost of Production of Brinjal (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	638.49	621.54	592.17	614.55
Cost B	830.07	822.58	809.92	819.61
Cost C	971.21	992.33	970.19	979.51

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,33,663.21	2,26,614.54	2,37,630.93	2,32,266.40
By-product	0.00	0.00	0.00	0.00
Total	2,33,663.21	2,26,614.54	2,37,630.93	2,32,266.40

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	11,35,238.25	11,40,492.00	124.21	9,181.82
Fertilizer	Kg	77,348.00	17,62,377.00	121.65	14,487.04
Manures	MT	553.30	9,12,225.00	64.79	14,080.15
Plant protection chemicals	L	1,175.40	17,34,643.00	116.13	14,936.82
Diesel (excluding irrigation)	₹	-	64,430.00	124.21	518.71
Repair & Maintenance of Machinery & Equipments	₹	-	7,810.35	124.21	62.88
Other Expenses	₹	-	1,14,740.00	124.21	923.74
Irrigation Charges	₹	-	2,36,943.10	124.21	1,907.57
Incidental Charges	₹	-	14,64,194.00	124.21	11,787.86

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			22	26	144	188	380
Average Household size			5	5	5	5	5
Principle source of income	Cultivation		21	26	143	169	359
	Livestock		3	9	29	11	52
	Other Agricultural Activities		2	2	3	0	7
	Other		24	6	16	5	51
Cultivated Area (ha.)	Own land	Irrigated	49	34	260	315	658
		Rainfed	0	7	13	38	57
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	2	2

Season: Kharif Category: Vegetables Crop: Okra

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Abelmoschus esculentus***
Local Name: *Bhendi*
Harvesting Period: September to January
Common Varieties (major) in the State:1500, 996, Amar tulshi, Anamika, Ankur, Arka, Bayer, BC 86, F – 1, Green vigery, Green Globe, Geen Gold, Indo US, Jambalaya, Kaveri, Local, Mayco, NS 858, ParbhaniKranti, PusaSawni, Samruddhi 007, Shubra, Snowball, Syngenta, VarshUphar, Veer 333, Zilmil.

No.	Districts
1	Bhandara
2	Buldhana
3	Chandrapur
4	Dhule
5	Gondia
6	Hingoli
7	Jalgaon
8	Osmanabad
9	Palghar
10	Raigad
11	Sindhudurg
12	Thane

Major findings of the Survey:

1. The working capital of Okra ranges from district to district. It ranges from ₹32,491.42 per ha. in Hingoli to ₹1,26,369.25 per Ha. in Thane.
2. The price realization of Okra ranges from ₹1,359.53 per quintal in Osmanabad to ₹2,927.78 per quintal in Palghar with average rate of ₹ 2,163.00 per quintal.
3. The productivity of Okra is ranges from 44.33 quintals per Ha. in Hingoli district to 152.11 quintals per Ha. in Buldhana district.
4. The contribution of Okra cultivation ranges from ₹5,591.26 per Ha. in Thane to ₹2,74,261.74 per Ha. in Buldhana district.
5. The percent contribution of hired labour and mechanical power is 41.02% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	4	0	2	2	1	3	12
Talukas	8	0	5	4	2	7	26
Villages	16	0	9	8	4	12	49
Farmer/Holdings	80	0	40	40	20	60	240

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	57	10.68	24.05	0.78
Medium	(1.00 ha – 2.00 ha)	133	36.82	17.30	1.60
Large	(more than 2.00 ha)	50	19.32	12.79	3.02
Total –	All classes	240	66.814	16.37	1.70

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	18.59	19.06	31.53	22.58
Female	65.64	63.44	69.13	65.52
Total	48.30	46.16	54.63	49.03

Cost of Cultivation for Okra (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	80,155.51	76,133.34	76,703.40	76,940.83
Cost B	1,16,241.48	1,05,928.95	1,07,527.38	1,08,038.86
Cost C	1,36,572.12	1,23,899.86	1,24,005.95	1,25,955.39

Cost of Production of Okra (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	822.43	917.34	844.22	878.53
Cost B	1,192.69	1,276.35	1,183.48	1,233.62
Cost C	1,401.29	1,492.88	1,364.84	1,438.19

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,14,875.19	1,77,215.35	1,83,373.89	1,85,013.33
By-product	0.00	0.00	0.00	0.00
Total	2,14,875.19	1,77,215.35	1,83,373.89	1,85,013.33

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area	Value per ha. (₹)
	Unit	Quantity		(in ha.)	
Seed	Kg	935.80	8,39,490.00	66.81	12,564.58
Fertilizer	Kg	34,400.00	5,43,151.00	63.21	8,592.26
Manures	MT	204.90	2,62,500.00	24.12	10,883.99
Plant protection chemicals	L	1,633.94	7,19,770.00	66.81	10,772.74
Diesel (excluding irrigation)	₹	-	2,900.00	66.81	43.40
Repair & Maintenance of Machinery & Equipments	₹	-	4,129.62	66.81	61.81
Other Expenses	₹	-	22,580.00	66.81	337.95
Irrigation Charges	₹	-	1,37,336.50	66.81	2,055.50
Incidental Charges	₹	-	3,64,985.00	66.81	5,462.70

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			23	18	113	86	240
Average Household size			6	6	6	6	6
Principle source of income	Cultivation		23	18	113	86	240
	Livestock		0	4	3	2	9
	Other Agricultural Activities		0	0	0	1	1
	Other		1	4	2	1	8
Cultivated Area (ha.)	Own land	Irrigated	40	17	198	127	382
		Rainfed	0	10	4	11	26
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Onion

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Allium cepa***
Local Name: Kanda
Harvesting Period: September to October
Common Varieties (major) in the State: Samarth, JV12, Bhagava, Lal Kanda, Pusa safed, Pusa Red, Bhima Shakti, Bhima Shubhra, Panchganga, Fursungi, Harna, Aelora, Rangada, Syngenta, Garva, Baswant.

No.	Districts	No.	Districts
1	Buldhana	14	Satara
2	Dhule	15	Solapur
3	Hingoli		
4	Jalna		
5	Jalgaon		
6	Nanded		
7	Nandurbar		
8	Nashik		
9	Osmanabad		
10	Palghar		
11	Pune		
12	Raigad		
13	Sangli		

Major findings of the Survey:

1. The working capital of Onion ranges from ₹28,537.85 per Ha. in Jalna to ₹1,05,490.79 per Ha. in Nashik.
2. The contribution of Onion (sales value- working capital- interest on working capital) ranges from ₹ (-) 42,501.54 per Ha. in Solapur to ₹1,12,716.63 per Ha. in Buldhana.
3. Productivity ranges from 72.66 quintals per Ha. in Nanded to 439.51 quintals per Ha. in Nashik.
4. The price realized ranges from ₹ 311.60 per quintal in Palghar to ₹ 1,053.23 per quintal in Jalgaon.
5. It is noteworthy that, lower price realization & lower productivity has resulted in very poor contribution in Solapur district.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	2	4	4	4	1	0	15
Talukas	4	10	8	7	3	0	32
Villages	8	17	19	17	4	0	65
Farmer/Holdings	40	80	80	80	20	0	300

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	59	21.10	59.27	0.60
Medium	(1.00 ha – 2.00 ha)	99	78.40	47.17	1.68
Large	(more than 2.00 ha)	142	164.00	25.48	4.53
Total –	All classes	300	263.50	31.17	2.82

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	71.66	42.52	33.02	42.86
Female	79.60	79.01	80.56	79.91
Total	76.32	67.19	64.88	67.31

Cost of Cultivation for Onion (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	89,602.43	61,865.78	68,176.96	68,011.94
Cost B	1,13,826.23	83,253.01	89,230.32	89,418.25
Cost C	1,22,428.13	90,878.01	95,551.66	96,310.09

Cost of Production of Onion (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	441.53	369.49	365.86	373.59
Cost B	560.89	497.22	478.84	491.18
Cost C	603.28	542.76	512.76	529.03

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	96,653.89	94,706.24	89,273.57	91,480.96
By-product	0.00	0.00	0.00	0.00
Total	96,653.89	94,706.24	89,273.57	91,480.96

Inputs under consideration for valuation of Gross Value Added:

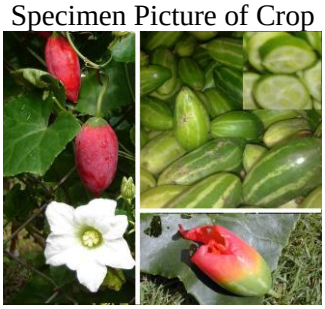
Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	2,22,409.00	14,71,550.00	263.50	5,584.63
Fertilizer	Kg	1,46,240.00	24,96,360.00	263.10	9,488.26
Manures	MT	758.50	14,03,500.00	156.80	8,950.89
Plant protection chemicals	L	835.95	10,99,310.00	238.00	4,618.95
Diesel (excluding irrigation)	₹	-	11,300.00	263.50	42.88
Repair & Maintenance of Machinery & Equipments	₹	-	22,482.81	263.50	85.32
Other Expenses	₹	-	4,07,930.00	263.50	1,548.12
Irrigation Charges	₹	-	4,93,981.80	263.50	1,874.69
Incidental Charges	₹	-	17,69,465.00	263.50	6,715.24

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			6	24	112	158	300
Average Household size			6	7	6	6	6
Principle source of income	Cultivation		6	12	112	158	288
	Livestock		0	0	13	20	33
	Other Agricultural Activities		0	0	0	2	2
	Other		0	0	8	11	19
Cultivated Area (ha.)	Own land	Irrigated	11	42	251	404	708
		Rainfed	0	0	81	56	137
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	1	1

Season: Kharif Category: Vegetables Crop: Ivy gourd

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Trichosanthes dioica***
Local Name: Tondali
Harvesting Period: August: September
Common Varieties (major) in the State: Swarna rekha, Swarna suruchi

No.	Districts
1	Sindhudurg

Major findings of the Survey:

1. Working capital for Ivy Gourd is ₹ 86,887.24 per ha. in Sindhudurg.
2. The price realization for Ivy Gourd is ₹ 1,733.39 per quintal.
3. The productivity in case of Ivy Gourd is 141.90 quintals per ha. Sindhudurg.
4. The contribution of cultivating Ivy Gourd is ₹1,53,435.97 per ha.
5. The cost composition under the head Hired labour is highest at 40.56 % of the working capital of Ivy Gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	01	0	0	0	0	0	01
Talukas	02	0	0	0	0	0	02
Villages	04	0	0	0	0	0	04
Farmer/Holdings	20	0	0	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	18	5.00	38.46	0.72
Medium	(1.00 ha – 2.00 ha)	02	0.80	33.33	1.20
Large	(more than 2.00 ha)	0	0.00	0.00	0.00
Total –	All classes	20	5.80	37.66	0.77

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	19.49	37.74	0	21.10
Female	57.67	77.39	0	59.92
Total	43.13	64.88	0	45.40

Cost of Cultivation for Ivy gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	93,480.55	86,560.72	0.00	92,526.09
Cost B	1,37,008.91	1,18,379.31	0.00	1,34,439.31
Cost C	1,74,228.91	1,35,191.81	0.00	1,68,844.49

Cost of Production of Ivy gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	637.66	769.43	0.00	652.07
Cost B	934.58	1,052.26	0.00	947.45
Cost C	1,188.46	1,201.70	0.00	1,189.91

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,55,596.00	1,85,750.00	0.00	2,45,962.07
By-product	0.00	0.00	0.00	0.00
Total	2,55,596.00	1,85,750.00	0.00	2,45,962.07

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	13.75	30,434.00	5.80	5,247.24
Fertilizer	Kg	1,700.00	48,780.00	5.80	8,410.34
Manures	MT	61.00	67,900.00	5.80	11,706.90
Plant protection chemicals	L	38.40	61,710.00	5.80	10,639.66
Diesel (excluding irrigation)	₹	-	0.00	5.80	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	490.75	5.80	84.61
Other Expenses	₹	-	67,530.00	5.80	11,643.10
Irrigation Charges	₹	-	18,571.25	5.80	3,201.94
Incidental Charges	₹	-	25,210.00	5.80	4,346.55

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			4	0	2	14	20
Average Household size			6	0	6	7	7
Principle source of income	Cultivation		4	0	2	14	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	2	0	2	11	15
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	4	4

Season: Kharif Category: Vegetables Crop: Potato

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Solanum tuberosum***
Local Name: *Batata*
Harvesting Period: October to January
Common Varieties (major) in the State: Giriraj, Jyoti, Kanchan

No.	Districts
1	Kolhapur
2	Pune
3	Sangli

Major findings of the Survey:

1. Working capital of Potato ranges from ₹1,45,531.49 per Ha. in Kolhapur to ₹1,53,734.23 per Ha. in Pune district.
2. Price realization for Potato ranges from ₹1,039.51 per quintal in Sangli to ₹1,602.97 per quintal in Kolhapur district.
3. The productivity of Potato ranges from 206.92 quintals per Ha. in Kolhapur to 274.42 quintals per Ha. in Pune with average productivity of 248.49 quintals per Ha.
4. The contribution of cultivating Potato ranges from ₹1,18,204.57 per Ha. in Sangli to ₹1,76,704.01 per Ha. in Kolhapur district.
5. The expenditure incurred in connection with seed is higher at 34.65% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	3	0	0	0	0	3
Talukas	0	7	0	0	0	0	7
Villages	0	12	0	0	0	0	12
Farmer/Holdings	0	60	0	0	0	0	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	0	0.00	0.00	0.00
Medium	(1.00 ha – 2.00 ha)	31	14.46	31.16	1.50
Large	(more than 2.00 ha)	29	12.16	13.22	3.17
Total –	All classes	60	26.62	19.23	2.31

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0.00	43.31	68.19	55.10
Female	0.00	76.95	90.23	83.80
Total	0.00	61.78	81.20	71.44

Cost of Cultivation for Potato (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0.00	1,43,648.24	1,75,672.11	1,58,276.72
Cost B	0.00	1,90,887.50	2,31,321.48	2,09,357.72
Cost C	0.00	2,04,213.92	2,39,117.53	2,20,157.87

Cost of Production of Potato (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0.00	627.92	645.95	636.94
Cost B	0.00	834.41	850.58	842.49
Cost C	0.00	892.66	879.25	885.96

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	0.00	2,74,869.99	3,23,421.05	2,97,048.08
By-product	0.00	0.00	0.00	0.00
Total	0.00	2,74,869.99	3,23,421.05	2,97,048.08

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	74,950.00	13,70,000.00	26.62	51,465.06
Fertilizer	Kg	20,350.00	2,12,300.00	26.62	7,975.21
Manures	MT	178.00	3,36,000.00	11.72	28,668.94
Plant protection chemicals	L	223.80	2,24,180.00	26.62	8,421.49
Diesel (excluding irrigation)	₹	-	0.00	26.62	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	595.85	26.62	22.38
Other Expenses	₹	-	1,72,800.00	26.62	6,491.36
Irrigation Charges	₹	-	46,176.14	26.62	1,734.64
Incidental Charges	₹	-	4,76,500.00	26.62	17,900.08

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	60	0	60
Average Household size			0	0	5	0	5
Principle source of income	Cultivation		0	0	60	0	60
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	0	0	138	0	138
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	34	0	34

Season: Kharif Category: Vegetables Crop: Sweet Potato

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Ipomoea batatas***
Local Name: *Ratali*
Harvesting Period: October to December
Common Varieties (major) in the State: Lal, Varsha, Kiran and Kanjanghad

No.	Districts
1	Akola
2	Beed
3	Kolhapur

Major findings of the Survey:

1. Working capital of Sweet Potato ranges from ₹59,312.61 per Ha. in Akola to ₹83,059.50 per Ha. in Kolhapur district.
2. Price realization for Sweet Potato ranges from ₹1,606.16 per quintal in Beed to ₹1,964.91 per quintal in Kolhapur district.
3. The productivity of Sweet Potato ranges from 60.66 quintals per Ha. in Akola to 128.65 quintals per Ha. in Kolhapur with average productivity of 98.35 quintals per Ha.
4. The contribution of cultivating Sweet Potato ranges from ₹ 35,471.97 per Ha. in Akola to ₹ 1,64,343.33 per Ha. in Kolhapur district.
5. The expenditure incurred in connection with Hired Labour and Mechanical Power constitutes 37.51% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	1	0	1	1	0	3
Talukas	0	1	0	2	3	0	6
Villages	0	4	0	4	4	0	12
Farmer/Holdings	0	20	0	20	20	0	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	06	1.60	47.06	0.57
Medium	(1.00 ha – 2.00 ha)	40	15.72	24.79	1.59
Large	(more than 2.00 ha)	14	10.00	23.15	3.09
Total –	All classes	60	27.32	24.84	1.83

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	27.03	5.39	30.77	15.87
Female	71.74	73.03	61.27	67.08
Total	62.29	47.08	53.31	50.86

Cost of Cultivation for Sweet Potato (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,01,521.43	68,031.66	78,796.12	73,933.14
Cost B	1,43,155.37	95,843.59	1,13,443.38	1,05,056.50
Cost C	1,51,624.12	1,07,497.53	1,26,448.38	1,17,018.43

Cost of Production of Sweet Potato (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	676.81	722.12	732.31	722.15
Cost B	954.37	1,017.33	1,054.31	1,026.15
Cost C	1,010.83	1,141.03	1,175.17	1,142.99

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,43,750.00	1,62,814.89	2,03,185.00	1,82,331.63
By-product	0.00	0	0.00	0.00
Total	2,43,750.00	1,62,814.89	2,03,185.00	1,82,331.63

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	4,57,130.00	2,96,760.00	27.32	10,862.37
Fertilizer	Kg	16,766.00	2,59,940.00	26.12	9,951.76
Manures	MT	106.00	1,90,753.00	15.00	12,716.87
Plant protection chemicals	L	15.25	13,660.00	10.80	1,264.81
Diesel (excluding irrigation)	₹	-	1,90,520.00	27.32	6,973.65
Repair & Maintenance of Machinery & Equipments	₹	-	5,376.88	27.32	196.81
Other Expenses	₹	-	10,000.00	27.32	366.03
Irrigation Charges	₹	-	1,16,719.70	27.32	4,272.32
Incidental Charges	₹	-	2,78,447.00	27.32	10,192.06

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			6	0	16	38	60
Average Household size			7	0	6	6	6
Principle source of income	Cultivation		6	0	16	38	60
	Livestock		0	0	1	5	6
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	11	0	25	60	96
		Rainfed	0	0	1	12	13
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	1	1
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Pumpkin

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cucurbita pepo***
Local Name: Dangar, Tambada Bhopla, kaddu
Harvesting Period: September to January
Common Varieties (major) in the State: Suvarna, Saras, ArkaChandan, Ambiliand Suraj.

No.	Districts
1	Akola
2	Aurangabad

Major findings of the Survey:

1. The working capital of Pumpkin is highest at ₹ 78,650.43 per Ha. in Akola district and lowest at ₹ 1,24,451.25 per Ha. in Aurangabad district.
2. The price realization of Pumpkin ranges from ₹ 664.94 per quintal in Akola to ₹752.53 per quintal in Aurangabad district.
3. The productivity of Pumpkin ranges from 504.29 quintals per Ha. in Aurangabad to 550.00 quintals per Ha. in Akola with average productivity of 527.14 quintals per Ha.
4. The contribution of cultivating Pumpkin ranges from ₹ 2,46,963.48 per Ha. in Aurangabad to ₹2,81,963.76 per Ha. in Akola district.
5. The expenditure in connection with hired labour and Mechanical power constitutes 57.65 % of the average working capital of Pumpkin.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	1	0	2
Talukas	0	0	0	2	2	0	4
Villages	0	0	0	4	4	0	8
Farmer/Holdings	0	0	0	20	20	0	40

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	0	0.00	0.00	0.00
Medium	(1.00 ha – 2.00 ha)	24	8.80	19.30	1.90
Large	(more than 2.00 ha)	16	7.40	17.79	2.60
Total –	All classes	40	16.20	18.58	2.18

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0.00	36.10	41.51	38.42
Female	0.00	56.98	74.40	64.69
Total	0.00	48.78	61.90	54.52

Cost of Cultivation for Pumpkin (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0.00	1,08,668.30	1,00,264.60	1,04,829.57
Cost B	0.00	1,71,176.10	1,63,820.96	1,67,816.35
Cost C	0.00	1,92,386.33	1,78,814.20	1,86,186.72

Cost of Production of Pumpkin (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0.00	208.79	185.03	197.70
Cost B	0.00	328.90	302.31	316.49
Cost C	0.00	369.65	329.98	351.13

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	0.00	3,68,567.05	3,75,359.46	3,71,669.75
By-product	0.00	0.00	0.00	0.00
Total	0.00	3,68,567.05	3,75,359.46	3,71,669.75

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	46.00	65,700.00	16.20	4,055.56
Fertilizer	Kg	11,700.00	1,15,500.00	16.20	7,129.63
Manures	MT	24.00	37,960.00	7.00	5,422.86
Plant protection chemicals	L	251.90	97,990.00	16.20	6,048.77
Diesel (excluding irrigation)	₹	-	0.00	16.20	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	415.53	16.20	25.65
Other Expenses	₹	-	0.00	16.20	0.00
Irrigation Charges	₹	-	38,127.11	16.20	2,353.53
Incidental Charges	₹	-	3,23,900.00	16.20	19,993.83

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	2	10	26	40
Average Household size			5	10	6	6	6
Principle source of income	Cultivation		2	2	10	26	40
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	1	1
Cultivated Area (ha.)	Own land	Irrigated	4	4	22	57	87
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Khairf Category: Vegetables Crop: Tomato

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Solanum ilycopersicum***
Local Name: *Tamate*
Harvesting Period: October to January
Common Varieties (major) in the State: Panchganaga, Anisha, Roma, Jubilee and Shubhra.

No.	Districts	No.	Districts
1	Amravati	14	Solapur
2	Bhandara	15	Sangli
3	Buldhana	16	Satara
4	Chandrapur	17	Thane
5	Dhule		
6	Gadchiroli		
7	Hingoli		
8	Nagpur		
9	Nashik		
10	Osmanabad		
11	Palghar		
12	Pune		
13	Raigad		

Major findings of the Survey:

1. The working capital of Tomato ranges from ₹ 67,511.55 per Ha. in Gadchiroli to ₹ 2,04,433.29 per Ha. in Amravati district.
2. Price realization for Tomato ranges from ₹638.00 per quintal in Pune to ₹2,059.84 per quintal in Hingoli with average rate of ₹ 1,155.84 per quintal.
3. The productivity of Tomato varies from district to district with range of 61.02 quintals per Ha. in Palghar to 504.52 quintals per Ha. in Nashik with average productivity 235.39 quintals per Ha.
4. The contribution of cultivating Tomato ranges from ₹ (-)20,286.60 per Ha. in Solapur to ₹3,36,423.59 per Ha. in Thane.
5. The contribution of incidental charges in case of Tomato is 16.22 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	3	4	2	2	2	4	17
Talukas	6	9	4	4	2	8	33
Villages	11	16	9	8	6	17	67
Farmer/Holdings	60	80	40	40	40	80	340

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	85	26.56	50.48	0.62
Medium	(1.00 ha – 2.00 ha)	132	49.33	22.90	1.63
Large	(more than 2.00 ha)	123	61.90	14.87	3.38
Total –	All classes	340	137.79	20.14	2.01

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	25.34	24.38	32.62	27.82
Female	61.85	71.83	72.63	69.63
Total	51.21	58.35	61.07	57.60

Cost of Cultivation for Tomato (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,40,242.92	1,21,073.83	1,33,832.94	1,30,500.64
Cost B	1,87,021.30	1,64,176.36	1,84,359.87	1,77,647.01
Cost C	2,23,764.53	1,89,871.68	2,04,402.68	2,02,932.59

Cost of Production of Tomato (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	490.63	504.14	472.71	486.46
Cost B	654.28	683.62	651.18	662.21
Cost C	782.82	790.61	721.97	756.47

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,77,673.19	2,56,027.77	3,00,301.45	2,80,089.34
By-product	0.00	0.00	0.00	0.00
Total	2,77,673.19	2,56,027.77	3,00,301.45	2,80,089.34

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area	Value per ha. (₹)
	Unit	Quantity		(in ha.)	
Seed	Kg	22,51,984.31	21,60,705.00	137.79	15,681.15
Fertilizer	Kg	96,610.00	17,98,984.00	137.39	13,094.00
Manures	MT	875.90	14,54,300.00	89.83	16,189.47
Plant protection chemicals	L	753.28	12,61,220.00	136.59	9,233.62
Diesel (excluding irrigation)	₹	-	15,750.00	137.79	114.30
Repair & Maintenance of Machinery & Equipments	₹	-	7,111.35	137.79	51.61
Other Expenses	₹	-	16,68,590.00	137.79	12,109.66
Irrigation Charges	₹	-	3,59,105.77	137.79	2,606.18
Incidental Charges	₹	-	27,18,305.00	137.79	19,727.88

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			10	30	115	185	340
Average Household size			5	6	5	6	6
Principle source of income	Cultivation		10	30	115	185	340
	Livestock		0	9	30	2	41
	Other Agricultural Activities		0	0	3	8	11
	Other		1	6	8	7	22
Cultivated Area	Own land	Irrigated	14	30	217	373	634
		Rainfed	0	10	9	31	51
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	34	106	140

Season: Kharif Category: Vegetables Crop: Bittergourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Momordica charantia***
Local Name: Karle, Karela
Harvesting Period: 90 days
Common Varieties (major) in the State: ArkaHarit, Phule Priyanka, VK-2, Priya

No.	Districts
1	Gondia
2	Nagpur
3	Sindhudurg

Major findings of the Survey:

1. The working capital of Bitter gourd ranges from ₹ 92726.96 per Ha. in Nagpur district to ₹ 106654.04 per Ha. in Sindhudurg district.
2. The price realized for Bitter gourd ranges from ₹ 1891.33 per quintal in Sindhudurg to ₹ 2612.42 per quintal in Nagpur district.
3. Sales realization of Bitter gourd ranges from ₹ 83966.13 per Ha. in Sindhudurg to ₹ 316151.68 in Gondia district.
4. The productivity of Bitter gourd ranges from 104.30 quintals per Ha in Sindhudurg to 173.14 quintals per Ha. in Gondia district.
5. Expenditure in connection with the hired human labour constitutes 43.31 % of the average working capital of Bitter gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	0	0	0	0	2	3
Talukas	2	0	0	0	0	4	6
Villages	4	0	0	0	0	8	12
Farmer/Holdings	20	0	0	0	0	40	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	39	12.52	43.81	0.73
Medium	(1.00 ha – 2.00 ha)	14	4.24	20.35	1.49
Large	(more than 2.00 ha)	7	2.64	6.60	5.71
Total –	All classes	60	19.40	21.70	1.49

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	21.20	20.23	28.71	21.44
Female	70.54	62.91	60.00	68.24
Total	52.63	48.04	50.45	51.57

Cost of Cultivation for Bitter gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,12,876.51	1,05,392.62	90,363.91	1,08,177.29
Cost B	1,63,791.81	1,53,356.93	1,37,494.51	1,57,932.60
Cost C	1,92,002.68	1,78,852.22	1,49,539.97	1,83,350.13

Cost of Production of Bitter gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	841.20	893.73	845.96	852.41
Cost B	1,220.64	1,300.47	1,287.18	1,244.47
Cost C	1,430.88	1,516.67	1,399.95	1,444.76

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,03,718.05	2,86,129.72	2,81,363.64	2,96,831.96
By-product	0.00	0.00	0.00	0.00
Total	3,03,718.05	2,86,129.72	2,81,363.64	2,96,831.96

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	56.56	76,700.00	19.40	3,953.61
Fertilizer	Kg	12,155.00	2,45,760.00	19.40	12,668.04
Manures	MT	73.00	1,05,000.00	11.04	9,510.87
Plant protection chemicals	L	187.40	2,24,640.00	19.40	11,579.38
Diesel (excluding irrigation)	₹	-	0.00	19.40	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,888.67	19.40	97.35
Other Expenses	₹	-	3,49,600.00	19.40	18,020.62
Irrigation Charges	₹	-	60,717.33	19.40	3,129.76
Incidental Charges	₹	-	1,52,950.00	19.40	7,884.02

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			4	7	13	36	60
Average Household size			4	5	5	5	5
Principle source of income	Cultivation		4	7	13	36	60
	Livestock		1	0	0	0	1
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	2	2
Cultivated Area (ha.)	Own land	Irrigated	7	9	30	43	89
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Bottlegourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Lagenaria siceraria***
Local Name: Bhopla, Dudhi Bhopla, Lauki
Harvesting Period: October to January
Common Varieties (major) in the State: PusaManjiri, Samrat, CO1, ArkaBaharand Prolific Long

No.	Districts
1	Akola
2	Beed

Major findings of the Survey:

1. The working capital of Bottle-gourd is highest at ₹ 71,199.45 per Ha.in Akola district and lowest at ₹ 61,661.92 per Ha. in Beed district.
2. The price realization of Bottle-gourd ranges from ₹ 1,150.52 per quintal in Beed to ₹ 1,338.81 per quintal in Akola district.
3. The average productivity of Bottle-gourd is 86.97 quintals per Ha.
4. The contribution of cultivating Bottle-gourd ranges from ₹ 32,468.67 per Ha. in Beed to ₹ 42,857.78 per Ha. in Akola district.
5. The expenditure in connection with hired labour and Mechanical power constitutes 55.21% of the average working capital of Bottle-gour.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	1	0	2
Talukas	0	0	0	2	3	0	5
Villages	0	0	0	4	4	0	8
Farmer/Holdings	0	0	0	20	20	0	40

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	13	3.30	35.87	0.71
Medium	(1.00 ha – 2.00 ha)	19	6.20	20.95	1.56
Large	(more than 2.00 ha)	08	3.20	12.90	3.10
Total –	All classes	40	12.70	19.97	1.59

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	17.61	27.51	35.98	25.92
Female	41.23	65.23	70.47	59.08
Total	33.08	53.51	59.13	48.32

Cost of Cultivation for Bottle gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	72,358.50	74,642.81	60,088.66	70,382.06
Cost B	90,287.20	93,400.75	79,256.15	89,027.72
Cost C	1,29,135.69	1,19,392.68	96,334.27	1,16,114.34

Cost of Production of Bottle gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	795.94	850.71	742.41	810.38
Cost B	993.16	1,064.49	979.23	1,025.07
Cost C	1,420.49	1,360.73	1,190.23	1,336.95

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,03,257.58	1,08,096.77	1,11,421.88	1,07,677.17
By-product	0.00	0.00	0.00	0.00
Total	1,03,257.58	1,08,096.77	1,11,421.88	1,07,677.17

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	58.00	58,094.00	12.70	4,574.33
Fertilizer	Kg	4,150.00	86,380.00	12.70	6,801.57
Manures	MT	56.00	62,100.00	5.90	10,525.42
Plant protection chemicals	L	100.40	69,330.00	12.70	5,459.06
Diesel (excluding irrigation)	₹	0	0.00	12.70	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	437.35	12.70	34.44
Other Expenses	₹	-	2,21,400.00	12.70	17,433.07
Irrigation Charges	₹	-	43,706.44	12.70	3,441.45
Incidental Charges	₹	-	51,480.00	12.70	4,053.54

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			8	0	4	28	40
Average Household size			6	0	6	7	6
Principle source of income	Cultivation		8	0	4	28	40
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	20	0	4	40	64
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Pointed gourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Coccinia grandis***
Local Name: Parwal
Harvesting Period: August-September
Common Varieties (major) in the State: Suvarnarekha, Suvarnasuruchi

No.	Districts
1	Akola

Major findings of the Survey:

1. Working capital for Pointed Gourd is Rs. 62,142.21 per ha. in Akola.
2. The price realization for Pointed Gourd is Rs. 1,592.29 per quintal.
3. The productivity in case of Pointed Gourd is 68.03 quintals per ha.
4. The contribution of cultivating Pointed Gourd is Rs. 42,152.72 per ha.
5. The cost composition under the head Hired labour is highest at 43.64 % of the working capital of Pointed Gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	0	1	0	1
Talukas	0	0	0	0	2	0	2
Villages	0	0	0	0	4	0	4
Farmer/Holdings	0	0	0	0	20	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	07	1.80	36.00	0.71
Medium	(1.00 ha – 2.00 ha)	09	3.10	20.39	1.69
Large	(more than 2.00 ha)	04	1.20	8.82	3.40
Total –	All classes	20	6.10	18.05	1.69

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	13.51	22.90	36.36	22.16
Female	39.18	65.19	83.25	60.29
Total	29.76	49.65	67.57	46.53

Cost of Cultivation for Pointed gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	56,238.30	68,698.99	74,560.51	66,175.15
Cost B	73,991.65	86,483.88	97,107.06	84,887.46
Cost C	1,12,380.54	1,10,370.98	1,14,357.06	1,11,748.11

Cost of Production of Pointed gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	790.85	1,064.83	1,028.42	972.69
Cost B	1,040.51	1,340.50	1,339.41	1,247.74
Cost C	1,580.35	1,710.75	1,577.34	1,642.56

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,03,166.67	1,02,612.90	1,30,833.33	1,08,327.87
By-product	0.00	0.00	0.00	0.00
Total	1,03,166.67	1,02,612.90	1,30,833.33	1,08,327.87

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	13.00	28,196.00	6.10	4,622.30
Fertilizer	Kg	2,750.00	45,900.00	6.10	7,524.59
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	38.40	55,550.00	6.10	9,106.56
Diesel (excluding irrigation)	₹	-	0.00	6.10	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	190.54	6.10	31.24
Other Expenses	₹	-	83,830.00	6.10	13,742.62
Irrigation Charges	₹	-	16,670.96	6.10	2,732.94
Incidental Charges	₹	-	24,610.00	6.10	4,034.43

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			4	0	2	14	20
Average Household size			6	0	6	7	7
Principle source of income	Cultivation		4	0	2	14	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	12	0	2	20	34
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	4	4

Season: Kharif Category: Vegetables Crop: Ridgegourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Luffa acutangula***
Local Name: Dodka
Harvesting Period: Within 45 to 60 days of sowing
Common Varieties (major) in the State: Swarna, Vikram, Manjari

No.	Districts
1	Beed
2	Nagpur
3	Pune
4	Raigad

Major findings of the Survey:

1. The Working Capital of Ridge gourd ranges from ₹ 73,107.03 per ha. in Nagpur district to ₹ 1,16,533.19 per ha. in Pune district.
2. The price realized for Ridge gourd ranges from ₹ 1,669.04 per quintal in Beed to ₹ 2,039.74 per quintal in Raigad district.
3. Sales realization of Ridge gourd ranges from ₹ 52,250.43 per ha. in Beed to ₹ 3,17,869.30 in Raigad district.
4. The productivity of Ridge gourd ranges from 91.13 quintals per ha. in Beed to 197.62 quintals per ha. in Raigad district.
5. Expenditure in connection with the hired human labour constitutes 38.15 % of the average working capital of Ridge gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	1	0	1	0	1	4
Talukas	2	2	0	2	0	2	8
Villages	4	4	0	4	0	4	16
Farmer/Holdings	20	20	0	20	0	20	80

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	28	4.84	38.97	0.44
Medium	(1.00 ha – 2.00 ha)	27	10.70	24.32	1.63
Large	(more than 2.00 ha)	25	10.40	11.11	3.74
Total –	All classes	80	25.94	17.29	1.88

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	15.94	12.77	31.21	19.41
Female	46.36	58.55	71.02	59.94
Total	33.17	41.50	57.42	44.58

Cost of Cultivation for Ridge Gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,09,426.11	87,936.08	98,326.83	96,111.70
Cost B	1,66,521.82	1,16,540.32	1,25,540.68	1,29,474.56
Cost C	2,16,346.20	1,43,727.24	1,42,468.57	1,56,772.17

Cost of Production of Ridge Gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	649.05	909.10	1,036.07	878.48
Cost B	987.70	1,204.81	1,322.82	1,183.43
Cost C	1,283.23	1,485.88	1,501.19	1,432.94

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,40,588.84	1,70,029.91	1,61,499.04	1,98,433.31
By-product	0.00	0.00	0.00	0.00
Total	3,40,588.84	1,70,029.91	1,61,499.04	1,98,433.31

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	66.45	1,00,770.00	25.94	3,884.73
Fertilizer	Kg	13,836.00	2,75,660.00	25.94	10,626.83
Manures	MT	79.00	1,07,000.00	14.20	7,535.21
Plant protection chemicals	L	238.10	2,51,820.00	25.94	9,707.79
Diesel (excluding irrigation)	₹	-	0.00	25.94	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,659.13	25.94	63.96
Other Expenses	₹	-	5,42,300.00	25.94	20,905.94
Irrigation Charges	₹	-	59,968.00	25.94	2,311.80
Incidental Charges	₹	-	2,25,970.00	25.94	8,711.26

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			5	8	8	59	80
Average Household size			4	6	5	5	5
Principle source of income	Cultivation		5	8	8	59	80
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	14	23	23	82	142
		Rainfed	0	0	0	8	8
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	9	9

Season: Kharif Category: Vegetables Crop: Spongegourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Luffa aegyptiaca***
Local Name: Ghosali, Gilaki
Harvesting Period: September to January
Common Varieties (major) in the State: Pusa Chikani, PSG- 9, PSG- 10

No.	Districts
1	Chandrapur

Major findings of the Survey:

1. Average working capital for Sponge gourd is ₹ 1,10,643.13 per Ha.
2. Price realized for Sponge gourd is ₹1,688.54 per quintal.
3. Average productivity of Sponge gourd is 110.50 quintals per Ha.
4. The contribution of cultivating Sponge gourd is about ₹ 68,759.63per ha.
5. Highest Expenditure is under the head Hired labour at 49.20 % of the working capital in case of Sponge gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	0	0	1	1
Talukas	0	0	0	0	0	2	2
Villages	0	0	0	0	0	4	4
Farmer/Holdings	0	0	0	0	0	20	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	10	3.00	44.12	0.68
Medium	(1.00 ha – 2.00 ha)	10	3.00	23.44	1.28
Large	(more than 2.00 ha)	0	0.00	0.00	0.00
Total –	All classes	20	6.00	30.61	0.98

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	23.15	15.46	0	19.42
Female	73.16	70.73	0	71.75
Total	52.73	53.03	0	52.89

Cost of Cultivation for Sponge gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,23,201.44	1,12,445.96	0	1,17,823.70
Cost B	1,53,953.61	1,46,230.14	0	1,50,091.87
Cost C	1,88,586.95	1,86,163.47	0	1,87,375.21

Cost of Production of Sponge gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,180.84	963.82	0	1,066.28
Cost B	1,475.59	1,253.40	0	1,358.30
Cost C	1,807.54	1,595.69	0	1,695.70

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,77,166.67	1,96,000.00	0	1,86,583.33
By-product	0.00	0.00	0	0.00
Total	1,77,166.67	1,96,000.00	0	1,86,583.33

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	16.40	15,100.00	6.00	2,516.67
Fertilizer	Kg	4,650.00	78,340.00	6.00	13,056.67
Manures	MT	13.00	26,200.00	2.80	9,357.14
Plant protection chemicals	L	46.85	70,580.00	6.00	11,763.33
Diesel (excluding irrigation)	₹	-	0.00	6.00	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	609.58	6.00	101.60
Other Expenses	₹	-	1,05,400.00	6.00	17,566.67
Irrigation Charges	₹	-	28,929.17	6.00	4,821.53
Incidental Charges	₹	-	47,900.00	6.00	7,983.33

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	1	7	10	20
Average Household size			4	3	4	5	4
Principle source of income	Cultivation		2	1	7	10	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	2	0	8	9	20
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Peas

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Pisum sativum***
Local Name: Vatana, Matar
Harvesting Period: October to January
Common Varieties (major) in the State: Golden, Arkal

No.	Districts
1	Pune

Major findings of the Survey:

1. Average working capital for Peas is ₹ 68,744.87 per Ha.
2. Price realized for Peas is ₹ 2,044.79 per quintal.
3. Average productivity of Peas is 54.42 quintals per Ha.
4. The contribution of cultivating Peas is about ₹ 38,064.52 per ha.
5. Highest expenditure is under the heads hired labour and mechanical power contributing 64.21% of the working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	1	0	0	0	0	1
Talukas	0	2	0	0	0	0	2
Villages	0	4	0	0	0	0	4
Farmer/Holdings	0	20	0	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	0	0.00	0.00	0.00
Medium	(1.00 ha – 2.00 ha)	03	2.40	52.63	1.52
Large	(more than 2.00 ha)	17	21.60	25.71	4.94
Total –	All classes	20	24.00	27.10	4.43

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0	64.52	58.06	59.14
Female	0	100	92.68	93.62
Total	0	95.94	89.69	90.51

Cost of Cultivation for Peas (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	92,133.91	71,103.24	73,206.31
Cost B	0	1,12,216.22	90,285.96	92,478.99
Cost C	0	1,13,591.22	92,299.85	94,428.99

Cost of Production of Peas (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	1,650.16	1,310.44	1,345.29
Cost B	0	2,009.84	1,663.97	1,699.46
Cost C	0	2,034.47	1,701.09	1,735.30

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	0	1,15,000.00	1,10,856.48	1,11,270.83
By-product	0	0.00	0.00	0.00
Total	0	1,15,000.00	1,10,856.48	1,11,270.83

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	1,148.00	1,71,600.00	24.00	7,150.00
Fertilizer	Kg	11,000.00	2,22,000.00	24.00	9,250.00
Manures	MT	18.00	42,000.00	4.80	8,750.00
Plant protection chemicals	L	90.00	1,05,000.00	24.00	4,375.00
Diesel (excluding irrigation)	₹	-	6,000.00	24.00	250.00
Repair & Maintenance of Machinery & Equipments	₹	-	200.90	24.00	8.37
Other Expenses	₹	-	0.00	24.00	0.00
Irrigation Charges	₹	-	0.00	24.00	0.00
Incidental Charges	₹	-	49,676.00	24.00	2,069.83

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	4	16	20
Average Household size			0	0	4	10	9
Principle source of income	Cultivation		0	0	4	16	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	0	0	11	53	64
		Rainfed	0	0	3	21	24
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Green Chilli

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Capsicum annuum***
Local Name: *Mirchi*
Harvesting Period: September to December
Common Varieties (major) in the State:277, Ajinkya, Ankur 930, ArkaMohini, Balram, Corolinacayonne, F1 hybrid, Fafda, Garran, Jamie, Jolimont, Jwala, Maina, Meena, Local, MahaJwala, Oliver, Prajola, PusaJwala, PusaSadabahar, Pusa Safed, Rashi, RashiSonal, Sitara, Sitaram, Sygenta, Teja 7, Tejas, Tejswini, Vaishali, Varana, Venar.

No.	Districts	No.	Districts
1	Aurangabad	14	Raigad
2	Bhandara	15	Sindhudurg
3	Buldhana	16	Thane
4	Chandrapur		
5	Dhule		
6	Jalgaon		
7	Latur		
8	Nagpur		
9	Nandurbar		
10	Nashik		
11	Osmanabad		
12	Palghar		
13	Pune		

Major findings of the Survey:

1. Working capital of Green Chilli ranges from ₹ 48,362.81 per Ha. in Chandrapur to ₹ 1,90,503.93 per Ha. in Aurangabad district.
2. Price realization for Green Chilli ranges from ₹774.51 per quintal in Nagpur to ₹ 2,370.78 per quintal in Chandrapur district.
3. The productivity of Green Chilli ranges from 25.67 quintals per Ha. in Chandrapur to 437.15 quintals per Ha. in Pune with average productivity of 193.03 quintals per Ha.
4. The contribution of cultivating Green Chilli ranges from ₹ 9,418.16 per Ha. in Chandrapur to ₹ 3,77,164.47 per Ha. in Pune district.
5. The expenditure incurred in connection with Hired Labour and Mechanical Power constitutes 50.85% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	4	1	4	3	1	3	16
Talukas	8	2	6	6	4	7	33
Villages	16	4	16	14	4	12	66
Farmer/Holdings	80	20	80	60	20	60	320

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	70	20.57	44.87	0.65
Medium	(1.00 ha – 2.00 ha)	139	60.76	27.22	1.61
Large	(more than 2.00 ha)	111	80.29	17.74	4.08
Total –	All classes	320	161.62	22.40	2.26

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	65.42	33.83	42.04	43.42
Female	85.27	72.23	89.50	82.60
Total	75.80	56.80	70.24	66.32

Cost of Cultivation for Green Chilli (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,14,130.76	1,14,930.31	1,12,227.50	1,13,485.81
Cost B	1,47,952.73	1,56,812.29	1,52,585.34	1,53,584.80
Cost C	1,64,318.79	1,80,521.14	1,70,171.96	1,73,317.64

Cost of Production of Green Chilli (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	701.43	591.24	573.49	594.15
Cost B	909.29	806.70	779.72	804.09
Cost C	1,009.87	928.67	869.58	907.40

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,00,362.18	2,48,692.70	2,39,602.85	2,38,025.85
By-product	0.00	11.52	17.44	12.99
Total	2,00,362.18	2,48,704.22	2,39,620.29	2,38,038.84

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	15,22,166.15	14,34,267.00	161.62	8,874.10
Fertilizer	Kg	85,648.00	18,38,714.00	161.62	11,376.49
Manures	MT	694.50	9,92,650.00	101.00	9,828.22
Plant protection chemicals	L	1,395.61	16,63,060.00	157.05	10,589.10
Diesel (excluding irrigation)	₹	-	0.00	161.62	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	6,872.17	161.62	42.52
Other Expenses	₹	-	1,25,600.00	161.62	777.11
Irrigation Charges	₹	-	4,83,670.34	161.62	2,992.57
Incidental Charges	₹	-	7,95,829.00	161.62	4,923.95

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			18	34	84	184	320
Average Household size			5	7	5	6	6
Principle source of income	Cultivation		18	34	84	184	320
	Livestock		0	0	1	2	3
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	2	4	6
Cultivated Area (ha.)	Own land	Irrigated	17	47	173	388	625
		Rainfed	17	13	28	39	97
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	18	18

Season: Kharif Category: Vegetables Crop: Coriander

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Coriandrum sativum***
Local Name: *Kothimbir, Sabhar, Kothmir*
Harvesting Period: 21 to 50 days
Common Varieties (major) in the State: CO1, Karan Seeds

No.	Districts
1	Beed
2	Bhandara
3	Buldhana
4	Chandrapur
5	Dhule
6	Jalgaon
7	Nashik
8	Nagpur

Major findings of the Survey:

1. The working capital of Coriander ranges from district to district. It ranges from ₹ 13,304.89 per ha. in Bhandara to ₹ 47,069.94 per Ha. in Buldhana.
2. The contribution of Coriander cultivation ranges from ₹31,154.60 per Ha. in Dhule to ₹ 73,211.61 per Ha. in Nagpur district.
3. The price realization of Coriander ranges from ₹ 1,379.18 per quintal in Nashik to ₹ 2,703.49 per quintal in Jalgaon with average rate of ₹2,090.14 per quintal.
4. The productivity of Coriander is ranges from 34.39 quintals per Ha. in Dhule district to 55.24 quintals per Ha. in Nagpur district with average productivity of 43.26quintals per Ha.
5. Manure used for Coriander cultivation is more than use of fertilizer.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	3	1	1	3	8
Talukas	0	0	6	2	3	6	17
Villages	0	0	12	4	4	12	32
Farmer/Holdings	0	0	60	20	20	60	160

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	25	4.25	24.01	0.71
Medium	(1.00 ha – 2.00 ha)	47	15.07	20.73	1.55
Large	(more than 2.00 ha)	88	43.84	11.87	4.20
Total –	All classes	160	63.16	13.74	2.87

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	15.14	22.16	26.32	23.88
Female	49.07	66.85	72.04	69.04
Total	33.88	51.63	57.76	54.07

Cost of Cultivation for Coriander (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	42,704.62	36,490.95	30,673.81	32,871.07
Cost B	59,680.79	51,806.04	45,100.31	47,681.12
Cost C	78,680.79	64,465.32	54,066.19	58,203.26

Cost of Production of Coriander (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	876.79	705.84	762.91	755.31
Cost B	1,225.33	1,002.07	1,121.73	1,095.62
Cost C	1,615.43	1,246.94	1,344.72	1,337.40

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	99,310.59	89,714.63	84,729.95	86,900.19
By-product	0.00	0.00	0.00	0.00
Total	99,310.59	89,714.63	84,729.95	86,900.19

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	1,661.42	2,29,985.00	63.16	3,641.19
Fertilizer	Kg	10,625.00	86,130.00	52.82	1,630.69
Manures	MT	144.00	2,02,900.00	30.67	6,615.59
Plant protection chemicals	L	118.78	1,19,205.00	63.16	1,887.29
Diesel (excluding irrigation)	₹	-	0.00	63.16	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	3,887.92	63.16	61.55
Other Expenses	₹	-	0.00	63.16	0.00
Irrigation Charges	₹	-	1,53,877.90	63.16	2,436.24
Incidental Charges	₹	-	1,23,370.00	63.16	1,953.23

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			45	4	51	60	160
Average Household size			5	4	5	5	5
Principle source of income	Cultivation		45	4	51	60	160
	Livestock		8	0	14	19	41
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	4	3	7
Cultivated Area (ha.)	Own land	Irrigated	93	15	141	175	424
		Rainfed	1	0	8	26	35
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Fenugreek

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Trigonella foenum-graecum***
Local Name: *Methi*
Harvesting Period: August - September
Common Varieties (major) in the State: Bharava, Dip, Kasoori, Sproids, Single better, Local

No.	Districts
1	Chandrapur
2	Nandurbar
3	Satara

Major findings of the Survey:

1. Working capital of Fenugreek ranges from ₹ 23,699.00 per Ha. in Satara to ₹ 47,419.13 per Ha. Nandurbar.
2. Price realization for Fenugreek ranges from ₹ 1,163.43 per quintal to ₹ 1,942.19 per quintal.
3. The productivity of Fenugreek ranges from 61.35 quintals per Ha. in Nandurbar to 71.11 quintals per Ha. in Satara district with average productivity of 65.98 quintals per Ha.
4. The contribution of cultivating Fenugreek ranges from ₹ 20,885.21 per Ha. in Nandurbar to ₹ 1,12,874.08 per Ha in Satara district.
5. The contribution of incidental charges is about 13.18 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	1	1	0	0	1	3
Talukas	0	2	1	0	0	2	5
Villages	0	5	4	0	0	4	13
Farmer/Holdings	0	20	20	0	0	20	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	39	6.66	23.62	0.72
Medium	(1.00 ha – 2.00 ha)	15	2.00	9.62	1.39
Large	(more than 2.00 ha)	06	1.20	7.89	2.53
Total –	All classes	60	9.86	15.36	1.07

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	70.72	48.89	63.16	66.78
Female	65.09	53.75	29.41	59.70
Total	66.91	52.68	38.57	61.81

Cost of Cultivation for Fenugreek (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	38,435.91	38,862.66	19,728.41	36,245.70
Cost B	55,599.30	60,321.80	36,167.53	54,192.29
Cost C	62,723.93	70,321.80	42,667.53	61,824.14

Cost of Production of Fenugreek (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	589.69	565.28	326.54	554.86
Cost B	853.01	877.41	598.63	829.59
Cost C	962.32	1,022.86	706.22	946.42

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,00,688.44	1,26,437.50	97,458.33	1,05,518.26
By-product	0.00	0.00	0.00	0.00
Total	1,00,688.44	1,26,437.50	97,458.33	1,05,518.26

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	274.50	19,390.00	9.86	1,966.53
Fertilizer	Kg	4,500.00	58,260.00	7.16	8,136.87
Manures	MT	7.60	10,050.00	0.90	11,166.67
Plant protection chemicals	L	0.00	0.00	0.00	0.00
Diesel (excluding irrigation)	₹	-	700.00	9.86	70.99
Repair & Maintenance of Machinery & Equipments	₹	-	859.97	9.86	87.22
Other Expenses	₹	-	4,500.00	9.86	456.39
Irrigation Charges	₹	-	19,337.53	9.86	1,961.21
Incidental Charges	₹	-	42,705.00	9.86	4,331.14

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	22	29	7	60
Average Household size			6	7	5	4	6
Principle source of income	Cultivation		2	22	29	7	60
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	3	19	36	7	64
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Kharif Category: Vegetables Crop: Spinach

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Spinacia oleracea***
Local Name: Palak
Harvesting Period: After 25 days of sowing
Common Varieties (major) in the State: Co 1, Karan, Local, Spinach F1.

No.	Districts
1	Chandrapur
2	Nagpur
3	Pune

Major findings of the Survey:

1. Working capital of Leafy Vegetables ranges from ₹ 23,754.20 per Ha. in Chandrapur to ₹ 50,255.04 per Ha. in Pune district.
2. Price realization for Leafy Vegetables ranges from ₹1,542.42 per quintal in Chandrapur to ₹ 2,095.02 per quintal in Pune district.
3. The productivity of Leafy Vegetables ranges from 28.37 quintals per Ha. in Pune to 47.23 quintals per Ha. in Nagpur with average productivity of 38.40 quintals per Ha.
4. The contribution of cultivating Leafy Vegetables ranges from ₹ 5,918.27 per Ha. in Pune to ₹ 49,716.77 per Ha. in Nagpur district.
5. The expenditure incurred in connection with Hired Labour and Mechanical Power constitutes 40.98 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	1	0	0	0	2	3
Talukas	0	2	0	0	0	4	6
Villages	0	4	0	0	0	8	12
Farmer/Holdings	0	20	0	0	0	40	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	19	3.60	26.67	0.71
Medium	(1.00 ha – 2.00 ha)	24	8.6	22.81	1.57
Large	(more than 2.00 ha)	17	6.60	11.79	3.29
Total –	All classes	60	18.8	17.54	1.79

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	8.68	26.39	22.47	20.52
Female	45.81	52.56	47.21	49.33
Total	25.62	41.06	39.11	37.10

Cost of Cultivation for Leafy Vegetables (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	45,793.69	44,411.98	34,949.33	41,354.57
Cost B	56,100.65	55,467.69	50,816.86	53,956.16
Cost C	81,156.21	70,502.58	63,794.14	70,187.54

Cost of Production of Leafy Vegetables (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,478.54	1,322.75	681.43	1,052.41
Cost B	1,811.32	1,652.02	990.82	1,373.10
Cost C	2,620.29	2,099.82	1,243.84	1,786.16

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	59,111.11	63,686.05	93,121.21	73,143.62
By-product	0.00	0.00	0.00	0.00
Total	59,111.11	63,686.05	93,121.21	73,143.62

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	335.25	1,27,420.00	18.80	6,777.66
Fertilizer	Kg	5,190.00	79,326.00	18.80	4,219.47
Manures	MT	32.00	41,600.00	4.90	8,489.80
Plant protection chemicals	L	72.86	70,355.00	18.80	3,742.29
Diesel (excluding irrigation)	₹	-	0.00	18.80	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,409.51	18.80	74.97
Other Expenses	₹	-	18,040.00	18.80	959.57
Irrigation Charges	₹	-	36,333.96	18.80	1,932.66
Incidental Charges	₹	-	58,100.00	18.80	3,090.43

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			1	2	24	33	60
Average Household size			4	4	5	6	5
Principle source of income	Cultivation		1	2	24	33	60
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	1	6	44	52	103
		Rainfed	0	0	0	5	5
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	1	3	4

Season: Kharif Category: Vegetables Crop: Clusterbean

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cyamopsis Tetragonoloba***
Local Name: Gavar, Gawar, or Guvar bean
Harvesting Period: Within 60 to 90 days of sowing
Common Varieties (major) in the State: Mausami, Sadabahar, Navbaharand Local

No.	Districts
1	Akola
2	Aurangabad
3	Chandrapur
4	Hingoli
5	Osmanabad
6	Pune
7	Sindhudurg

Major findings of the Survey:

1. The working capital of Other Vegetables ranges from district to district. It ranges from ₹ 20,637.67 per ha. in Akola to ₹ 46,618.22 per Ha.in Pune.
2. The contribution of Other Vegetables cultivation ranges from ₹(-)5,475.77 per Ha. in Chandrapur to ₹ 95,247.92 Per Ha. in Hingoli district.
3. The price realization of Other Vegetables ranges from ₹ 1,535.86 per quintal in Chandrapur to ₹ 2,918.33 per quintal in Hingoli with average rate of ₹1,957.93 per quintal.
4. The productivity of Other Vegetables is ranges from 27.68 quintals per Ha. in Chandrapur district to 44.12 quintals per Ha. in Hingoli district with average productivity of 36.77 quintals per Ha.
5. The incidental expenses in case of Other Vegetables are about 14.65% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	1	0	3	1	1	7
Talukas	2	2	0	6	2	2	14
Villages	4	4	0	12	4	4	28
Farmer/Holdings	20	20	0	60	20	20	140

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	40	5.20	20.72	0.63
Medium	(1.00 ha – 2.00 ha)	59	12.20	12.87	1.61
Large	(more than 2.00 ha)	41	10.70	9.15	2.85
Total –	All classes	140	28.10	11.86	1.69

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	3.36	7.82	18.42	10.47
Female	10.46	39.28	38.16	32.28
Total	7.30	25.30	28.53	22.28

Cost of Cultivation for Cluster bean (Other Vegetables) (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	37,938.93	38,718.69	38,000.36	38,300.86
Cost B	51,341.94	52,237.63	50,736.27	51,500.19
Cost C	79,505.40	73,094.19	66,983.93	71,953.92

Cost of Production of Cluster bean (Other Vegetables) (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	983.95	1,073.56	1,058.86	1,050.52
Cost B	1,331.56	1,448.41	1,413.74	1,412.55
Cost C	2,061.99	2,026.70	1,866.48	1,973.55

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	78,155.77	78,804.92	74,149.53	76,912.10
By-product	0.00	0.00	0.00	0.00
Total	78,155.77	78,804.92	74,149.53	76,912.10

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	262.70	80,230.00	28.10	2,855.16
Fertilizer	Kg	9,434.00	1,75,810.00	28.10	6,256.58
Manures	MT	66.50	1,01,100.00	5.80	17,431.03
Plant protection chemicals	L	106.21	1,05,435.00	28.10	3,752.14
Diesel (excluding irrigation)	₹	0	3,360.00	28.10	119.57
Repair & Maintenance of Machinery & Equipments	₹	0	1,139.64	28.10	40.56
Other Expenses	₹	0	72,060.00	28.10	2,564.41
Irrigation Charges	₹	0	49,099.04	28.10	1,747.30
Incidental Charges	₹	0	1,31,410.00	28.10	4,676.51

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	8	53	77	140
Average Household size			6	5	5	5	5
Principle source of income	Cultivation		2	8	53	77	140
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	3	4	7
	Other		0	0	0	0	0
Cultivated Area (ha.)	Own land	Irrigated	4	13	86	113	217
		Rainfed	0	9	5	6	20
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			1	1	5	10	17

RABI CROPS

Year: 2018-19

Season: Rabi Category: Cereals Crop: Maize

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Zea mays***
Local Name: Maka, Makai
Harvesting Period: September to December
Common Varieties (major) in the State: Aswani, Ganga2, Madhuri, Mahabeej, Pioneer, Royal, Gold, Sugandha, Sygenta, Tata and Varun.

No.	Districts
1	Ahmednagar
2	Aurangabad
3	Buldhana
4	Dhule
5	Jalgaon
6	Jalna
7	Latur
8	Nandurbar
9	Nashik
10	Pune
11	Raigad
12	Sangli
13	Solapur

Major findings of the Survey:

1. The working capital of Maize ranges from ₹ 11,518.80 per ha. in Nashik to ₹ 41,671.89 per ha. in Solapur district.
2. Price realization for Maize ranges from ₹ 1,250.19 per quintal in Buldhana to ₹ 2,100.22 per quintal in Solapur with average rate of ₹ 1,472.35 per quintal.
3. The productivity of Maize varies from district to district with range of 23.25 quintals per ha. in Nandurbar to 80.65 quintals per ha. in Latur.
4. The contribution of cultivating Maize (sales price – working capital – interest on working capital) ranges from ₹ 4,322.74 per ha. in Nandurbar to ₹ 85,496.81 per ha. in Latur.
5. The expenditure incurred under the heads hired labour and mechanical power constitutes 67.40 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	3	5	3	1	0	13
Talukas	2	6	9	6	2	0	25
Villages	4	14	20	13	4	0	55
Farmer/Holdings	20	60	100	60	20	0	260

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	68	41.18	80.30	0.75
Medium	(1.00 ha – 2.00 ha)	112	67.7	39.27	1.54
Large	(more than 2.00 ha)	80	73.00	24.32	3.75
Total –	All classes	260	181.88	34.72	2.01

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	38.63	44.77	16.35	33.58
Female	66.42	71.59	72.95	71.04
Total	53.56	59.97	51.54	55.33

Cost of Cultivation for Maize (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	24,590.12	27,445.29	25,068.37	25,844.84
Cost B	36,909.07	43,450.23	41,115.39	41,032.11
Cost C	42,166.47	48,114.93	46,248.95	46,019.18

Cost of Production of Maize (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	828.66	630.27	551.04	627.51
Cost B	1,243.79	997.82	903.77	996.25
Cost C	1,420.96	1,104.95	1,016.61	1,117.34

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	42,946.21	61,847.86	64,507.67	58,635.83
By-product	3,644.97	3,686.85	3,920.55	3,771.17
Total	46,591.19	65,534.71	68,428.22	62,407.00

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	4,370.50	2,62,085.00	181.88	1,440.98
Fertilizer	Kg	49,228.00	4,45,250.00	167.88	2,652.19
Manures	MT	66.00	1,12,900.00	23.40	4,824.79
Plant protection chemicals	L	86.10	88,530.00	45.00	1,967.33
Diesel (excluding irrigation)	₹	--	0.00	181.88	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	7,049.07	181.88	38.76
Other Expenses	₹	--	2,000.00	181.88	11.00
Irrigation Charges	₹	--	1,15,510.72	181.88	635.09
Incidental Charges	₹	--	2,87,625.00	181.88	1,581.40

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			31	35	31	163	260
Average Household size			6	6	6	5	6
Principle source of income	Cultivation		31	35	29	150	245
	Livestock		1	0	2	12	15
	Other Agricultural Activities		0	0	0	0	0
	Other		1	1	2	0	4
Cultivated Area	Own land	Irrigated	35	48	72	259	413
		Rainfed	18	14	12	67	111
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Cereals Crop: Jowar

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Sorghum bicolor***
Local Name: Jwari
Harvesting Period: February to March
Common Varieties (major) in the State: 9Number Hybrid, Maldadi, Mahico, Aishwarya

No.	Districts	No.	Districts
1	Ahmednagar	14	Sangli
2	Aurangabad	15	Satara
3	Beed	16	Solapur
4	Buldhana		
5	Dhule		
6	Jalgaon		
7	Jalna		
8	Latur		
9	Nanded		
10	Nandurbar		
11	Nashik		
12	Osmanabad		
13	Parbhani		

Major findings of the Survey:

1. The working capital of Jowar ranges from ₹ 11,912.24 per ha. in Nashik to ₹ 31,213.83 per Ha. in Solapur district.
2. Price realization for Jowar ranges from ₹ 1,401.17 per quintal in Latur to ₹ 3,492.59 per quintal in Nashik and Buldhana.
3. The productivity of Jowar varies from district to district with range of 10.73 quintals per ha. in Dhule to 32.98 quintals per ha. in Latur.
4. The contribution of cultivating Jowar ranges from ₹ 7,753.13 per ha. in Dhule to ₹ 90,904.82 per ha. in Solapur.
5. The expenditure incurred in connection with hired labour and mechanical power constitutes 51.71 % of the average working capital of Jowar.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	3	5	7	1	0	16
Talukas	0	7	12	14	3	0	36
Villages	0	12	20	28	4	0	64
Farmer/Holdings	0	60	100	140	20	0	320

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	49	25.60	66.49	0.79
Medium	(1.00 ha – 2.00 ha)	123	80.20	38.30	1.70
Large	(more than 2.00 ha)	148	143.80	23.17	4.19
Total –	All classes	320	249.60	28.74	2.71

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	77.43	63.94	68.92	67.87
Female	89.35	77.07	78.80	79.63
Total	84.94	71.26	74.39	74.51

Cost of Cultivation for Jowar (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	33,048.94	28,731.45	24,967.53	27,005.79
Cost B	47,241.93	43,113.50	37,108.18	40,077.13
Cost C	48,724.36	45,733.20	38,778.56	42,033.26

Cost of Production of Jowar (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,723.12	1,331.94	1,154.82	1,264.66
Cost B	2,463.12	1,998.67	1,716.36	1,876.78
Cost C	2,540.41	2,120.12	1,793.62	1,968.39

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	57,084.77	58,283.79	47,549.63	51,976.63
By-product	7,113.28	9,786.78	9,459.67	9,324.12
Total	64,198.05	68,070.57	57,009.30	61,300.75

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	3,473.00	5,44,238.33	249.20	2,183.94
Fertilizer	Kg	54,663.00	8,07,555.00	241.20	3,348.07
Manures	MT	77.00	1,91,200.00	32.20	5,937.89
Plant protection chemicals	L	32.60	31,900.00	18.20	1,752.75
Diesel (excluding irrigation)	₹	-	0.00	249.60	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	5,683.19	249.60	22.77
Other Expenses	₹	-	24,330.00	249.60	97.48
Irrigation Charges	₹	-	88,615.93	249.60	355.03
Incidental Charges	₹	-	4,41,590.00	249.60	1,769.19

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			15	71	85	149	320
Average Household size			4	7	6	5	6
Principle source of income	Cultivation		13	68	83	138	302
	Livestock		0	0	4	4	8
	Other Agricultural Activities		0	0	0	2	2
	Other		0	0	9	2	11
Cultivated Area	Own land	Irrigated	12	52	210	194	469
		Rainfed	13	95	85	164	358
	Leased land	Irrigated	0	2	26	0	28
		Rainfed	0	0	14	0	14
Awareness of Minimum Support price (Yes)			0	0	8	0	8

Season: Rabi Category: Cereals Crop: Wheat

Specimen Picture of Crop

General Profile of Crop
Scientific Name: ***Triticum aestivum***
Local Name: Gahu, Shahu
Harvesting Period: February to March
Common Varieties (major) in the State: Lokwan, sonalika, hd2189, Mahabeej, PB -660, WH 1080, C 306, WH – 1080, Lokwan (DBH 17)

No.	Districts	No.	Districts
1	Ahmednagar	15	Nagpur
2	Akola	16	Nanded
3	Amravati	17	Nandurbar
4	Aurangabad	18	Nashik
5	Beed	19	Osmanabad
6	Bhandara	20	Parbhani
7	Buldhana	21	Pune
8	Chandrapur	22	Sangli
9	Dhule	23	Satara
10	Gadchiroli	24	Solapur
11	Hingoli	25	Wardha
12	Jalna	26	Washim
13	Jalgaon	27	Yavatmal
14	Latur		

Major findings of the Survey:

1. The working capital for Wheat ranges from ₹ 17,118.22 per ha. in Pune to ₹ 38,513.56 per ha. in Akola.
2. Price realization for Wheat ranges from ₹ 1,783.95 per quintal in Jalgaon to ₹ 2,663.57 per quintal in Beed with average rate of ₹ 2,140.13 per quintal.
3. Productivity of Wheat varies from district to district with range of 23.12 quintals per ha. in Nandurbar to 45.33 quintals per ha. in Solapur with average productivity 29.58 quintals per ha.
4. The contribution of cultivating Wheat ranges from ₹12,613.38 per ha. in Nandurbar to ₹71,509.20 per ha. in Solapur.
5. The contribution of irrigation charges in case of Wheat is 7.50% of the average working capital. (The expenses in connection with seed and Fertilizer Contributes about 30.64% of the average working capital of Wheat.)

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	5	8	5	5	27
Talukas	0	8	11	17	10	10	56
Villages	0	16	19	33	18	20	106
Farmer/Holdings	0	80	100	160	100	100	540

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	148	74.60	68.95	0.73
Medium	(1.00 ha – 2.00 ha)	247	163.30	43.06	1.54
Large	(more than 2.00 ha)	145	192.50	26.21	5.06
Total –	All classes	540	430.40	35.23	2.26

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	12.78	6.21	5.41	7.44
Female	53.60	52.71	53.17	53.05
Total	32.67	31.48	32.08	31.94

Cost of Cultivation for Wheat (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	30,206.47	27,017.58	24,861.10	26,605.80
Cost B	42,721.36	40,238.07	36,984.15	39,213.15
Cost C	48,635.57	45,858.71	40,683.37	44,025.30

Cost of Production of Wheat (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,067.46	891.94	822.08	889.13
Cost B	1,509.72	1,328.39	1,222.96	1,310.45
Cost C	1,718.72	1,513.94	1,345.28	1,471.27

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	59,305.12	65,726.43	61,355.90	62,658.68
By-product	3,460.32	2,573.61	1,239.32	2,130.53
Total	62,765.44	68,300.04	62,595.22	64,789.21

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	37,666.00	17,52,280.00	430.40	4,071.28
Fertilizer	Kg	1,18,003.00	18,10,847.00	430.20	4,209.31
Manures	MT	138.00	2,25,550.00	80.60	2,798.39
Plant protection chemicals	L	688.68	7,39,155.00	413.72	1,786.61
Diesel (excluding irrigation)	₹	-	18,000.00	430.40	41.82
Repair & Maintenance of Machinery & Equipments	₹	-	17,469.34	430.40	40.59
Other Expenses	₹	-	8,280.00	430.40	19.24
Irrigation Charges	₹	-	8,87,320.44	430.40	2,061.62
Incidental Charges	₹	-	4,06,083.00	430.40	943.50

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			65	49	172	254	540
Average Household size			5	6	5	5	5
Principle source of income	Cultivation		65	47	169	239	520
	Livestock		2	0	1	12	15
	Other Agricultural Activities		0	0	1	0	1
	Other		0	0	4	1	5
Cultivated Area	Own land	Irrigated	108	82	542	454	1,186
		Rainfed	2	5	9	19	36
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Pulses Crop: Gram

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cicer arietinum***
Local Name: Chana, Harbhara
Harvesting Period: January - March
Common Varieties (major) in the State: Kabuli, Mahabeej, Pusa-261, Sadabahar, Viajay, Digvijay, Sweta (ICCV2), Virat

No.	Districts	No.	Districts
1	Ahmednagar	16	Nanded
2	Akola	17	Nandurbar
3	Amravati	18	Nashik
4	Aurangabad	19	Osmanabad
5	Beed	20	Palghar
6	Bhandara	21	Parbhani
7	Buldhana	22	Pune
8	Chandrapur	23	Raigad
9	Dhule	24	Sangli
10	Gadchiroli	25	Satara
11	Hingoli	26	Solapur
12	Jalna	27	Thane
13	Jalgaon	28	Wardha
14	Latur	29	Washim
15	Nagpur	30	Yavatmal

Major findings of the Survey:

1. The working capital of Gram ranges from ₹ 14,297.33 per ha. in Wardha to ₹ 85,840.84 per ha. in Nashik.
2. The contribution of Gram ranges from ₹ (-)25,139.83 per ha. in Solapur to ₹ 1,15,942.42 per ha. in Nashik.
3. Productivity ranges from 6.45 quintals per ha. in Dhule to 43.06 quintals per ha. in Nashik.
4. The price realized ranges from ₹ 3,122.02 per quintal in Beed to ₹ 5,093.18 per quintal in Dhule.
5. It is noteworthy that, major expenditure is incurred on Hired Labour and Mechanical Power at 45.12%.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	3	4	5	8	5	5	30
Talukas	6	9	10	15	10	10	60
Villages	11	16	19	31	21	20	118
Farmer/Holdings	60	80	100	160	100	100	600

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	115	55.74	74.18	0.65
Medium	(1.00 ha – 2.00 ha)	306	200.94	42.38	1.55
Large	(more than 2.00 ha)	179	188.60	26.05	4.04
Total –	All classes	600	445.27	34.97	2.12

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	47.75	11.26	6.96	16.74
Female	66.65	44.41	58.12	53.86
Total	59.50	31.10	34.52	38.38

Cost of Cultivation for Gram (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	43,968.25	36,154.04	29,730.38	34,411.35
Cost B	60,793.17	51,539.86	43,865.32	49,447.49
Cost C	66,177.48	56,585.75	48,047.98	54,170.11

Cost of Production of Gram (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,750.41	2,291.33	1,941.20	2,204.66
Cost B	3,802.88	3,266.43	2,864.12	3,168.00
Cost C	4,139.69	3,586.22	3,137.22	3,470.57

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	72,482.79	69,000.60	65,634.95	68,010.92
By-product	188.53	61.89	53.64	74.25
Total	72,671.33	69,062.49	65,688.59	68,085.16

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	32,345.00	25,66,704.00	445.27	5,764.35
Fertilizer	Kg	82,305.00	18,06,038.00	445.27	4,056.03
Manures	MT	249.00	4,13,300.00	41.40	9,983.09
Plant protection chemicals	L	877.71	10,73,114.00	322.03	3,332.32
Diesel (excluding irrigation)	₹	-	10,280.00	445.27	23.09
Repair & Maintenance of Machinery & Equipments	₹	-	19,691.29	445.27	44.22
Other Expenses	₹	-	2,82,192.00	445.27	633.75
Irrigation Charges	₹	-	6,94,734.36	445.27	1,560.25
Incidental Charges	₹	-	7,89,745.00	445.27	1,773.62

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			43	46	168	343	600
Average Household size			6	6	6	5	6
Principle source of income	Cultivation		43	46	167	340	596
	Livestock		4	2	14	26	46
	Other Agricultural Activities		0	0	2	2	4
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	39	54	294	503	891
		Rainfed	51	16	37	279	382
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	5	21	8	34

Season: Rabi Category: Pulses Crop: Horse gram

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Macrotyloma uniflorum***
Local Name: Kulith
Harvesting Period: January to march
Common Varieties (major) in the State: CO-1, CO-2, AK-42, AK-43, CRHG-1, CRHG-2

No.	Districts
1	Sindhudurg

Major findings of the Survey:

1. Working capital of Kulith is ₹ 25,861.70 per ha.
2. The price realization for Kulith is ₹ 4,972.49 per quintal.
3. The productivity of Kulith is 14.90 quintals per ha.
4. The contribution of cultivating Kulith is ₹ 46,369.56 per ha.
5. The expenditure incurred in connection with Hired labour and Mechanical power constitutes 48.55% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	0	0	0	0	0	1
Talukas	2	0	0	0	0	0	2
Villages	4	0	0	0	0	0	4
Farmer/Holdings	20	0	0	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	19	5.81	47.61	0.64
Medium	(1.00 ha – 2.00 ha)	01	0.40	33.33	1.20
Large	(more than 2.00 ha)	00	0.00	0.00	0.00
Total –	All classes	20	6.21	46.33	0.67

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	00	00	00	00
Female	26.01	23.08	00	25.85
Total	19.86	16.67	00	19.68

Cost of Cultivation for Horse Gram (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	27,607.56	29,370.02	00	27,721.12
Cost B	40,344.44	40,058.37	00	40,326.01
Cost C	48,996.30	48,183.37	00	48,943.92

Cost of Production of Horse Gram (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,832.51	2,349.60	00	1,860.46
Cost B	2,677.95	3,204.67	00	2,706.42
Cost C	3,252.23	3,854.67	00	3,284.80

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	74,888.95	62,500.00	00	74,090.69
By-product	0.00	0.00	00	0.00
Total	74,888.95	62,500.00	00	74,090.69

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	93.00	6,400.00	6.21	1,030.93
Fertilizer	Kg	1,600.00	39,860.00	3.07	12,992.18
Manures	MT	22.00	23,500.00	4.00	5,875.00
Plant protection chemicals	L	0.00	0.00	0.00	0.00
Diesel (excluding irrigation)	₹	-	0.00	6.21	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	969.46	6.21	156.16
Other Expenses	₹	-	0.00	6.21	0.00
Irrigation Charges	₹	-	0.00	6.21	0.00
Incidental Charges	₹	-	11,870.00	6.21	1,912.05

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	0	20	20
Average Household size			0	0	0	5	5
Principle source of income	Cultivation		0	0	0	20	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	13	13
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Spices Crop: Garlic

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Allium sativum***
Local Name: Lasun
Harvesting Period: March to April
Common Varieties (major) in the State: Pusa red, Pusa Safed, Softneck, Silverskin, Hardneck, Varana and Jolimont

No.	Districts	No.	Districts
1	Ahmednagar	14	Satara
2	Aurangabad	15	Wardha
3	Beed	16	Yavatmal
4	Bhandara		
5	Buldhana		
6	Hingoli		
7	Jalna		
8	Jalgaon		
9	Nanded		
10	Nandurbar		
11	Osmanabad		
12	Parbhani		
13	Ratnagiri		

Major findings of the Survey:

1. The working capital of Garlic ranges from ₹ 47,163.42 per ha. in Nanded to ₹ 1,11,304.26 per ha. in Parbhani district.
2. Price realization for Garlic ranges from ₹1,852.21 per quintal in Parbhani to ₹ 4,216.52 per quintal in Buldhana.
3. The productivity of Garlic varies from district to district with range of 28.33 quintals per ha. in Wardha to 134.32 quintals per ha. in Nandurbar.
4. The contribution of cultivating Garlic ranges from ₹ 7,974.94 per ha. in Wardha to ₹ 3,92,132.83 per ha. in Nandurbar.
5. The contribution of seed expenses is at 35.18 % of the average working capital in case of Garlic.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	1	3	7	2	2	16
Talukas	2	2	5	13	4	4	30
Villages	4	4	11	28	8	8	63
Farmer/Holdings	20	20	60	140	40	40	320

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	51	14.13	34.63	0.80
Medium	(1.00 ha – 2.00 ha)	207	42.76	12.88	1.60
Large	(more than 2.00 ha)	62	13.64	7.35	2.99
Total –	All classes	320	70.52	12.63	1.74

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	75.66	43.56	23.34	50.01
Female	85.92	73.36	70.37	75.54
Total	81.74	62.54	58.69	66.51

Cost of Cultivation for Garlic (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	92,728.25	79,876.61	69,955.65	80,532.96
Cost B	1,68,899.92	1,39,158.59	1,10,024.76	1,39,483.56
Cost C	1,79,683.47	1,56,540.94	1,27,628.90	1,55,586.79

Cost of Production of Garlic (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	748.18	791.23	994.91	808.30
Cost B	1,362.77	1,378.46	1,564.77	1,399.98
Cost C	1,449.78	1,550.65	1,815.13	1,561.60

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	4,49,199.46	3,48,946.58	2,34,507.19	3,46,902.86
By-product	0.00	0.00	0.00	0.00
Total	4,49,199.46	3,48,946.58	2,34,507.19	3,46,902.86

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	39,667.00	20,69,370.00	70.52	29,344.44
Fertilizer	Kg	16,411.00	2,63,100.00	40.91	6,430.88
Manures	MT	136.02	3,00,490.00	38.67	7,770.22
Plant protection chemicals	L	88.31	1,15,650.00	11.02	10,494.56
Diesel (excluding irrigation)	₹	-	0.00	70.52	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	3,270.44	70.52	46.38
Other Expenses	₹	-	72,160.00	70.52	1,023.26
Irrigation Charges	₹	-	1,08,280.42	70.52	1,535.46
Incidental Charges	₹	-	3,92,902.00	70.52	5,571.50

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			14	21	110	175	320
Average Household size			5	5	5	5	5
Principle source of income	Cultivation		14	21	110	175	320
	Livestock		3	0	0	15	18
	Other Agricultural Activities		0	0	0	1	1
	Other		0	0	6	0	6
Cultivated Area	Own land	Irrigated	21	24	177	292	515
		Rainfed	3	0	9	31	43
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	2	3	5

Season: Rabi Category: Vegetables Crop: Beans

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Phaseolus vulgaris***
Local Name: Val, Papada
Harvesting Period: March - August
Common Varieties (major) in the State: Jade, Maxibel, Contender, HFG-119, Kulthi, Pusa Phalguni, Amba, Kalptaru, FS-277, Durgapura.

No.	Districts
1	Dhule
2	Nandurbar

Major findings of the Survey:

1. The working capital of Beans ranges from ₹ 40,365.72 per ha. in Nandurbar to ₹ 1,47,413.68 per ha. in Dhule district.
2. Price realization for Beans ranges from ₹ 930.99 per quintal in Nandurbar to ₹ 2161.30 per quintal in Dhule with average rate of ₹ 1,546.15 per quintal.
3. The productivity of Beans ranges from 135.99 quintals per ha. in Nandurbar to 257.58 quintals per ha. in Dhule with average productivity 196.79 quintals per ha.
4. The contribution of cultivating Beans ranges from ₹ 83,699.70 per ha. in Nandurbar to ₹ 4,00,009.77 per ha. in Dhule.
5. The contribution of hired human labour, mechanical power and incidental charges in case of Beans is 41.83%, 15.41% and 14.55 % respectively of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	2	0	0	0	2
Talukas	0	0	4	0	0	0	4
Villages	0	0	8	0	0	0	8
Farmer/Holdings	0	0	40	0	0	0	40

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	15	4.96	57.67	0.57
Medium	(1.00 ha – 2.00 ha)	17	5.98	21.36	1.65
Large	(more than 2.00 ha)	8	4.48	20.55	2.73
Total –	All classes	40	15.42	26.40	1.46

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	53.92	22.60	5.72	20.84
Female	80.16	79.46	36.32	65.12
Total	65.24	47.52	15.73	38.21

Cost of Cultivation for Beans (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	65,363.37	1,19,140.21	1,13,916.84	1,00,324.79
Cost B	99,073.96	1,83,863.62	1,88,371.10	1,57,899.73
Cost C	1,10,344.12	2,13,378.67	2,50,246.10	1,90,947.72

Cost of Production of Beans (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	292.60	693.05	562.68	508.38
Cost B	443.51	1,069.56	930.43	800.14
Cost C	493.96	1,241.25	1,236.06	967.60

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,01,068.55	3,86,162.21	4,44,642.86	3,43,615.43
By-product	0.00	0.00	0.00	0.00
Total	2,01,068.55	3,86,162.21	4,44,642.86	3,43,615.43

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	754.00	68,035.00	15.42	4,412.13
Fertilizer	Kg	10,650.00	2,07,150.00	15.42	13,433.85
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	3,585.60	91,000.00	11.18	8,139.53
Diesel (excluding irrigation)	₹	-	0.00	15.42	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	239.17	15.42	15.51
Other Expenses	₹	-	3,900.00	15.42	252.92
Irrigation Charges	₹	-	31,838.38	15.42	2,064.75
Incidental Charges	₹	-	2,11,060.00	15.42	13,687.42

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	19	1	18	40
Average Household size			6	5	4	6	5
Principle source of income	Cultivation		2	19	1	18	40
	Livestock		0	0	1	6	7
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	2	20	1	36	58
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Vegetables Crop: Cauliflower

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Brassica oleracea var. botrytis***
Local Name: Kobi, Ful Kobi
Harvesting Period: January to March
Common Varieties (major) in the State: Hisar1, Snowball, Shubhra

No.	Districts
1	Dhule

Major findings of the Survey:

1. Working capital of Cauliflower is ₹1,00,587.35 per Ha.
2. The price realization for Cauliflower is ₹1,156.25 per quintal.
3. The productivity of Cauliflower is 225.45 quintals per Ha.
4. The contribution of cultivating Cauliflower is ₹1,53,566.50 per Ha.
5. The contribution of incidental charges is 10.65 % of the average working capital well as the Seed and fertilizer contributes 37.14% of the average working capital in case of Cauliflower.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	0	0	0	1
Talukas	0	0	2	0	0	0	2
Villages	0	0	4	0	0	0	4
Farmer/Holdings	0	0	20	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	01	0.80	100.00	0.80
Medium	(1.00 ha – 2.00 ha)	12	6.20	30.39	1.70
Large	(more than 2.00 ha)	07	4.00	15.63	3.66
Total –	All classes	20	11.00	23.50	2.34

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	08.33	12.93	25.90	16.90
Female	80.00	70.17	88.73	77.86
Total	44.90	43.19	63.27	50.53

Cost of Cultivation for Cauliflower (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	85,657.77	1,08,161.57	1,09,785.15	1,07,115.32
Cost B	1,30,259.06	1,54,075.21	1,52,105.38	1,51,626.82
Cost C	1,39,759.06	1,67,994.56	1,60,980.38	1,63,390.46

Cost of Production of Cauliflower (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	380.70	464.08	513.61	475.11
Cost B	578.93	661.08	711.60	672.54
Cost C	621.15	720.81	753.12	724.72

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,62,500.00	2,69,032.26	2,47,375.00	2,60,681.82
By-product	0.00	0.00	0.00	0.00
Total	2,62,500.00	2,69,032.26	2,47,375.00	2,60,681.82

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area	Value per ha. (₹)
	Unit	Quantity		(in ha.)	
Seed	Kg	1,80,500.00	2,02,500.00	11.00	18,409.09
Fertilizer	Kg	9,450.00	2,08,420.00	11.00	18,947.27
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	20.80	1,00,850.00	11.00	9,168.18
Diesel (excluding irrigation)	₹	--	0.00	11.00	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	319.35	11.00	29.03
Other Expenses	₹	--	45,740.00	11.00	4,158.18
Irrigation Charges	₹	--	20,371.53	11.00	1,851.96
Incidental Charges	₹	--	1,17,800.00	11.00	10,709.09

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	0	2	16	20
Average Household size			8	0	8	6	6
Principle source of income	Cultivation		2	0	2	16	20
	Livestock		0	0	1	7	8
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	3	0	4	40	47
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	2	2

Season: Rabi Category: Vegetables Crop: Capsicum

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Capsicum annuum***
Local Name: Shimla Mirchi, Dhobali Mirchi
Harvesting Period: January to March
Common Varieties (major) in the State: Ruby king, Arka Mohini, Worldbitter, Indra

No.	Districts
1	Beed
2	Thane

Major findings of the Survey:

1. The working capital of Capsicum ranges from ₹ 96,695.41 per ha. in Beed to ₹ 1,78,995.35 per ha. in Thane district.
2. Price realization for Capsicum ranges from ₹ 2,254.11 per quintal in Thane to ₹ 2,282.76 per quintal in Beed with average rate of ₹ 2,268.44 per quintal.
3. The productivity of Capsicum ranges from 137.93 quintals per ha. in Beed to 221.54 quintals per ha. in Thane.
4. The contribution of cultivating Capsicum ranges from ₹ 2,11,893.00 per ha. in Beed to ₹ 3,08,760.43 per ha. in Thane.
5. The contribution of irrigation charges in case of Capsicum is 5.35% and that of Seed and Fertilizer is 30.81% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	00	00	1	00	00	2
Talukas	2	00	00	2	00	00	4
Villages	5	00	00	4	00	00	9
Farmer/Holdings	20	00	00	20	00	00	40

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	20	6.30	59.55	0.53
Medium	(1.00 ha – 2.00 ha)	10	6.60	39.29	1.68
Large	(more than 2.00 ha)	10	5.20	13.27	3.92
Total –	All classes	40	18.10	27.19	1.66

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	54.69	40.10	37.54	49.70
Female	57.33	69.72	71.49	62.62
Total	55.48	50.57	51.14	53.89

Cost of Cultivation for Capsicum (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,94,188.43	94,243.17	1,13,085.85	1,34,444.11
Cost B	2,76,160.37	1,51,303.26	1,67,102.67	1,99,300.87
Cost C	3,19,779.42	1,64,166.89	1,81,891.13	2,23,422.42

Cost of Production of Capsicum (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	912.98	631.48	822.44	800.47
Cost B	1,298.37	1,013.81	1,215.29	1,186.63
Cost C	1,503.44	1,100.00	1,322.84	1,330.25

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	4,80,252.38	3,36,740.91	3,17,357.69	3,81,123.76
By-product	0.00	0.00	0.00	0.00
Total	4,80,252.38	3,36,740.91	3,17,357.69	3,81,123.76

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	2,07,730.00	3,96,995.00	18.10	21,933.43
Fertilizer	Kg	19,305.00	3,03,305.00	18.10	16,757.18
Manures	MT	52.00	80,800.00	11.60	6,965.52
Plant protection chemicals	L	249.73	1,89,700.00	18.10	10,480.66
Diesel (excluding irrigation)	₹	-	0.00	18.10	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,606.58	18.10	88.76
Other Expenses	₹	-	1,41,000.00	18.10	7,790.06
Irrigation Charges	₹	-	1,09,233.92	18.10	6,035.02
Incidental Charges	₹	-	1,68,046.00	18.10	9,284.31

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	10	2	28	40
Average Household size			0	6	5	5	6
Principle source of income	Cultivation		0	10	2	28	40
	Livestock		0	1	0	2	3
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	5	1	60	67
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Vegetables Crop: Brinjal

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Solanum melongena***
Local Name: Wangi, Regan, Baingan
Harvesting Period: February to April
Common Varieties (major) in the State: Panchganga, Shirgaon kata, Kalpatru, Hirawakata, Heera 10, ankur Vijay, 1097

No.	Districts
1	Kolhapur
2	Nandurbar
3	Ratnagiri

Major findings of the Survey:

1. The working capital of Brinjal ranges from district to district. It ranges from ₹ 46,454.74 per ha. in Nandurbar to ₹ 2,13,035.45 per ha. in Kolhapur.
2. The contribution of Brinjal cultivation ranges from ₹ 94,755.50 per ha. in Nandurbar to ₹ 2,25,575.68 per ha. in Ratnagiri district.
3. The price realization of Brinjal ranges from ₹ 1317.43 per quintal in Ratnagiri to ₹ 1,956.25 per quintal in Kolhapur with average rate of ₹1,558.62 per quintal.
4. The productivity of Brinjal is ranges from 102.80 quintals per ha. in Nandurbar to 251.31 quintals per ha. in Ratnagiri with average productivity of 178.80 quintals per ha.
5. The expenses incurred in connection with incidental charges are 10.18% and contribution of Hired human labour and Mechanical Power together is about 51.13% of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	1	1	0	0	0	3
Talukas	2	2	2	0	0	0	6
Villages	3	3	4	0	0	0	10
Farmer/Holdings	20	20	20	0	0	0	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	30	11.5	45.28	0.85
Medium	(1.00 ha – 2.00 ha)	24	9.88	24.33	1.69
Large	(more than 2.00 ha)	6	1.90	9.31	3.40
Total –	All classes	60	23.28	26.94	1.44

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	59.02	62.81	85.06	62.69
Female	84.13	88.12	97.44	88.15
Total	73.20	78.46	94.74	78.41

Cost of Cultivation for Brinjal (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,12,528.17	1,23,174.08	2,00,136.71	1,24,196.46
Cost B	1,54,736.27	1,66,952.79	2,63,901.14	1,68,830.45
Cost C	1,62,436.27	1,76,198.74	2,66,585.35	1,76,777.18

Cost of Production of Brinjal (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	678.95	739.34	1,014.03	736.26
Cost B	933.61	1,002.12	1,337.10	1,000.86
Cost C	980.07	1,057.62	1,350.70	1,047.97

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,50,906.52	2,60,108.60	3,78,421.05	2,65,218.99
By-product	0.00	0.00	0.00	0.00
Total	2,50,906.52	2,60,108.60	3,78,421.05	2,65,218.99

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	2,33,350.00	2,46,460.00	23.28	10,586.77
Fertilizer	Kg	13,440.00	2,51,150.00	22.88	10,976.84
Manures	MT	113.00	1,69,000.00	6.30	26,825.40
Plant protection chemicals	L	545.59	3,11,232.00	14.00	22,230.86
Diesel (excluding irrigation)	₹	-	21,096.00	23.28	906.19
Repair & Maintenance of Machinery & Equipments	₹	-	2,164.41	23.28	92.97
Other Expenses	₹	-	24,750.00	23.28	1,063.14
Irrigation Charges	₹	-	63,528.74	23.28	2,728.90
Incidental Charges	₹	-	2,83,000.00	23.28	12,156.36

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	22	2	34	60
Average Household size			4	5	4	6	5
Principle source of income	Cultivation		2	22	2	34	60
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	3	20	1	53	78
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	9	9
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	3	3

Season: Rabi Category: Vegetables Crop: Cucumber

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Brassica oleracea var. botrytis***
Local Name: Kakadi, Khira
Harvesting Period: February to April
Common Varieties (major) in the State: Ashley, Straight-8, Phule-Shubhangi, GVS – 612, Syngenta

No.	Districts	No.	Districts
1	Ahmednagar	14	Pune
2	Amravati	15	Raigad
3	Aurangabad	16	Sangli
4	Beed	17	Satara
5	Buldhana	18	Sindhudurg
6	Dhule	19	Thane
7	Latur	20	Yavatmal
8	Nagpur		
9	Nanded		
10	Nandurbar		
11	Nashik		
12	Osmanabad		
13	Parbhani		

Major findings of the Survey:

1. The working capital of Cucumber ranges from ₹ 20,133.88 per ha. in Latur to ₹1,13,300.95 per ha. in Thane.
2. Productivity of Cucumber ranges from 49.37 quintals per ha. in Dhule to 355.88 quintals per ha. in Nandurbar district.
3. Price realization of Cucumber ranges from ₹ 1,111.71 per quintal in Nandurbar to ₹ 2,524.57 per quintal in Dhule.
4. The contribution of cultivating Cucumber (Sales realization – working capital-interest on working capital) ranges from ₹ 15,909.97 per ha. in Beed to ₹ 3,49,718.28 per ha. in Nandurbar.
5. It is noteworthy that expenditure in connection with hired labour is about 41.98 % of the average cost of cultivation of Cucumber.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	3	3	4	6	3	1	20
Talukas	7	6	8	11	6	2	40
Villages	19	12	15	24	15	5	90
Farmer/Holdings	60	60	80	120	60	20	400

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	143	38.75	42.53	0.64
Medium	(1.00 ha – 2.00 ha)	147	66.06	27.99	1.61
Large	(more than 2.00 ha)	110	46.90	10.74	3.97
Total –	All classes	400	151.71	19.86	1.91

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	29.35	39.79	27.11	32.71
Female	52.11	71.36	66.63	63.83
Total	43.33	60.41	53.88	52.84

Cost of Cultivation for Cucumber (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	68,268.10	55,425.05	53,481.27	58,104.40
Cost B	1,06,267.37	85,233.91	73,325.59	86,924.68
Cost C	1,37,351.55	99,595.85	89,913.01	1,06,245.68

Cost of Production of Cucumber (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	386.96	412.46	724.10	459.66
Cost B	602.35	634.29	992.77	687.66
Cost C	778.54	741.16	1217.36	840.50

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,26,720.09	1,77,817.57	1,18,066.63	1,71,836.05
By-product	0.00	0.00	0.00	0.00
Total	2,26,720.09	1,77,817.57	1,18,066.63	1,71,836.05

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	1,503.60	4,61,064.00	151.71	3,039.15
Fertilizer	Kg	59,525.00	12,41,600.00	141.91	8,749.33
Manures	MT	544.37	5,45,000.00	44.80	12,165.18
Plant protection chemicals	L	29,595.25	7,80,442.00	148.01	5,272.97
Diesel (excluding irrigation)	₹	--	0.00	151.71	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	4,403.71	151.71	29.03
Other Expenses	₹	--	10,13,869.00	151.71	6,683.03
Irrigation Charges	₹	--	4,08,752.26	151.71	2,694.34
Incidental Charges	₹	--	7,27,170.00	151.71	4,793.22

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			51	18	98	233	400
Average Household size			5	5	5	6	6
Principle source of income	Cultivation		51	18	98	233	400
	Livestock		0	0	6	5	11
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	130	22	161	415	728
		Rainfed	7	2	9	18	36
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	2	4	37	43

Season: Rabi Category: Vegetables Crop: Pumpkin

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cucurbita pepo***
Local Name: Kaddu, Tambada Bhopala, Dangar
Harvesting Period: September to October
Common Varieties (major) in the State: Ambili, Saras, Aarkachandan, Suvrna, Suraj,

No.	Districts
1	Beed

Major findings of the Survey:

1. Average working capital for Pumpkin is ₹ 88,093.62 per ha.
2. Price realized for Pumpkin is ₹ 667.81 per quintal.
3. Average productivity of Pumpkin is ₹ 400.00 quintals per ha.
4. The contribution of cultivating Pumpkin is about ₹ 1,73,312.83 per ha.
5. The expenditure incurred in connection with hired labour and mechanical power constitutes 45.49 % of the working capital in case of Pumpkin.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	0	0	1
Talukas	0	0	0	2	0	0	2
Villages	0	0	0	4	0	0	4
Farmer/Holdings	0	0	0	20	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	00	00	00	00
Medium	(1.00 ha – 2.00 ha)	08	3.20	21.62	1.85
Large	(more than 2.00 ha)	12	6.00	19.48	2.57
Total –	All classes	20	9.20	20.18	2.28

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	00	37.50	38.85	38.38
Female	00	70.27	64.17	66.40
Total	00	55.07	52.03	53.12

Cost of Cultivation for Pumpkin (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	00	1,11,504.53	84,374.09	93,810.76
Cost B	00	1,54,123.98	1,31,338.17	1,39,263.67
Cost C	00	1,66,936.48	1,44,221.50	1,52,122.36

Cost of Production of Pumpkin (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	00	302.39	202.50	234.53
Cost B	00	417.96	315.21	348.16
Cost C	00	452.71	346.13	380.31

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	00	2,49,067.81	2,76,753.33	2,67,123.59
By-product	00	0.00	0.00	0.00
Total	00	2,49,067.81	2,76,753.33	2,67,123.59

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	27.00	36,100.00	9.20	3,923.91
Fertilizer	Kg	10,800.00	97,040.00	9.20	10,547.83
Manures	MT	31.00	49,300.00	9.20	5,358.70
Plant protection chemicals	L	110.10	1,07,100.00	9.20	11,641.30
Diesel (excluding irrigation)	₹	--	0.00	9.20	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	396.98	9.20	43.15
Other Expenses	₹	--	0.00	9.20	0.00
Irrigation Charges	₹	--	20,824.29	9.20	2,263.51
Incidental Charges	₹	--	1,31,050.00	9.20	14,244.57

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	2	18	20
Average Household size			0	0	4	5	5
Principle source of income	Cultivation		0	0	2	18	20
	Livestock		0	0	0	2	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	4	4
Cultivated Area	Own land	Irrigated	0	0	6	40	46
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Vegetables Crop: Bittergourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Momordica charantia***
Local Name: Karli
Harvesting Period: December to February
Common Varieties (major) in the State: Arka Harit, Phule Priyanka, VK-2-priya, Phule Priyanka

No.	Districts
1	Dhule
2	Gondia

Major findings of the Survey:

1. The working capital for Bitter gourd ranges from ₹ 87,637.25 per ha. in Dhule to ₹ 1,18,508.85 per ha. in Gondia district.
2. Price realization for Bitter gourd ranges from ₹ 2,487.10 per quintal in Gondia to ₹ 2616.37 per quintal in Dhule with average rate of ₹ 2,551.73 per quintal.
3. The productivity of Bitter gourd varies from district to district with range of 95.31 quintals per ha. in Gondia to 106.08 quintals per ha. in Dhule with average productivity 100.69 quintals per ha.
4. The contribution of cultivating Bitter gourd ranges from ₹ 11,1149.70 per ha. in Gondia to ₹ 1,84,449.02 per ha. in Dhule.
5. The contribution of hired labour in case of Bitter gourd is 45.72 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	0	0	1	2
Talukas	0	0	2	0	0	2	4
Villages	0	0	4	0	0	4	8
Farmer/Holdings	0	0	20	0	0	20	40

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	19	5.78	40.99	0.74
Medium	(1.00 ha – 2.00 ha)	15	4.45	19.40	1.53
Large	(more than 2.00 ha)	6	2.20	13.10	2.80
Total –	All classes	40	12.43	23.09	1.35

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	20.38	27.45	23.40	22.39
Female	68.62	66.10	62.57	67.39
Total	51.31	52.49	49.47	51.42

Cost of Cultivation for Bittergourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,29,655.59	97,809.77	79,625.31	1,09,399.71
Cost B	1,70,511.31	1,40,618.37	1,29,705.07	1,52,587.15
Cost C	2,07,613.38	1,59,528.48	1,45,886.88	1,79,473.71

Cost of Production of Bittergourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,317.06	967.23	751.83	1,086.13
Cost B	1,732.08	1,390.56	1,224.68	1,514.90
Cost C	2,108.97	1,577.56	1,377.47	1,781.84

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,43,096.89	2,55,314.61	2,99,227.27	2,57,405.47
By-product	0.00	0.00	0.00	0.00
Total	2,43,096.89	2,55,314.61	2,99,227.27	2,57,405.47

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	37.66	60,250.00	12.43	4,847.14
Fertilizer	Kg	7,650.00	1,56,750.00	12.43	12,610.62
Manures	MT	12.00	25,300.00	2.46	10,284.55
Plant protection chemicals	L	137.70	1,49,060.00	12.43	11,991.95
Diesel (excluding irrigation)	₹	-	0.00	12.43	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,071.57	12.43	86.21
Other Expenses	₹	-	2,27,000.00	12.43	18,262.27
Irrigation Charges	₹	-	40,980.93	12.43	3,296.94
Incidental Charges	₹	-	98,755.00	12.43	7,944.89

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	1	7	30	40
Average Household size			6	6	5	5	5
Principle source of income	Cultivation		1	1	7	17	26
	Livestock		2	0	0	18	20
	Other Agricultural Activities		0	0	0	2	2
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	3	1	5	45	54
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Vegetables Crop: Pointed gourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Coccinia grandis***
Local Name: Parwal
Harvesting Period: January to February
Common Varieties (major) in the State: Suvarnarekha, Suvarnasuruchi

No.	Districts
1	Beed

Major findings of the Survey:

1. Average working capital for Pointed Gourd is ₹ 57,966.30 per ha.
2. Price realized for Pointed Gourd is ₹ 1,538.84 per quintal.
3. Average productivity of Pointed Gourd is 68.91 quintals per ha.
4. The contribution of cultivating Pointed Gourd is about ₹ 44,307.71 per ha.
5. Highest expenditure is under the head hired labour at 49.02 % of the working capital in case of Pointed Gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	0	0	1
Talukas	0	0	0	2	0	0	2
Villages	0	0	0	4	0	0	4
Farmer/Holdings	0	0	0	20	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	03	0.80	40.00	0.67
Medium	(1.00 ha – 2.00 ha)	13	4.40	18.97	1.78
Large	(more than 2.00 ha)	04	1.20	9.09	3.30
Total –	All classes	20	6.40	16.67	1.92

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	12.33	15.19	31.00	17.61
Female	27.64	51.47	79.43	53.63
Total	21.94	37.24	61.82	39.78

Cost of Cultivation for Pointed gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	48,614.28	60,579.96	74,681.18	61,728.23
Cost B	64,159.92	79,054.36	94,103.93	80,014.35
Cost C	1,10,409.92	1,15,395.27	1,17,353.93	1,15,139.35

Cost of Production of Pointed gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	777.83	873.94	1,042.06	895.83
Cost B	1,026.56	1,140.46	1,313.08	1,161.21
Cost C	1,766.56	1,664.72	1,637.50	1,670.96

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	90,375.00	1,07,234.09	1,12,083.33	1,06,035.94
By-product	0.00	0.00	0.00	0.00
Total	90,375.00	1,07,234.09	1,12,083.33	1,06,035.94

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	14.75	25,080.00	6.40	3,918.75
Fertilizer	Kg	1,750.00	47,440.00	6.40	7,412.50
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	29.25	44,360.00	6.40	6,931.25
Diesel (excluding irrigation)	₹	0.00	0.00	6.40	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	242.94	6.40	37.96
Other Expenses	₹	--	1,20,000.00	6.40	18,750.00
Irrigation Charges	₹	--	16,651.39	6.40	2,601.78
Incidental Charges	₹	--	22,510.00	6.40	3,517.19

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			4	0	2	14	20
Average Household size			6	0	6	6	6
Principle source of income	Cultivation		4	0	2	14	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	12	0	2	25	38
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	3	3

Season: Rabi Category: Vegetables Crop: Sponge gourd

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Luffa aegyptiaca***
Local Name: Gilaki, Ghosali
Harvesting Period: February-March
Common Varieties (major) in the State: Swarna, Vikram, Swarna, Uphar, local, Swarna Manjari

No.	Districts
1	Dhule

Major findings of the Survey:

1. Average working capital for Sponge Gourd is ₹ 1,11,594.55 per ha.
2. Price realized for Sponge Gourd is ₹ 1,748.97 per quintal.
3. Average productivity of Sponge Gourd is 154.35 quintals per ha.
4. The contribution of cultivating Sponge Gourd is about ₹ 1,51,124.42 per ha.
5. Highest expenditure is under the head hired labour at 49.04 % of the working capital in case of Sponge Gourd.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	0	0	0	1
Talukas	0	0	2	0	0	0	2
Villages	0	0	4	0	0	0	4
Farmer/Holdings	0	0	20	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	04	0.20	10.00	0.50
Medium	(1.00 ha – 2.00 ha)	04	1.30	19.12	1.70
Large	(more than 2.00 ha)	12	4.70	10.00	3.92
Total –	All classes	20	6.20	11.11	2.79

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	24.14	23.75	25.67	25.06
Female	63.96	63.19	68.04	66.50
Total	50.30	50.21	54.15	52.81

Cost of Cultivation for Sponge gourd (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	5,77,700.79	1,24,217.00	97,822.62	1,18,836.87
Cost B	7,78,942.08	1,73,766.87	1,36,465.01	1,65,011.44
Cost C	8,84,942.08	1,97,074.57	1,56,124.58	1,88,221.11

Cost of Production of Sponge gourd (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	862.24	819.71	734.45	769.89
Cost B	1,162.60	1,146.68	1,024.58	1,069.04
Cost C	1,320.81	1,300.49	1,172.18	1,219.41

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	11,73,000.00	2,89,892.31	2,26,021.28	2,69,961.29
By-product	0.00	0.00	0.00	0.00
Total	11,73,000.00	2,89,892.31	2,26,021.28	2,69,961.29

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	26.00	24,600.00	6.20	3,967.74
Fertilizer	Kg	2,808.00	61,930.00	6.20	9,988.71
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	68.85	78,580.00	6.20	12,674.19
Diesel (excluding irrigation)	₹	--	0.00	6.20	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	238.02	6.20	38.39
Other Expenses	₹	--	2,12,650.00	6.20	34,298.39
Irrigation Charges	₹	--	17,888.16	6.20	2,885.19
Incidental Charges	₹	--	60,750.00	6.20	9,798.39

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	2	10	8	20
Average Household size			0	5	5	5	5
Principle source of income	Cultivation		0	2	10	8	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	6	21	28	56
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Vegetables Crop: Beetroot

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Beta vulgaris***
Local Name: Beet
Harvesting Period: February to March
Common Varieties (major) in the State: Crimson Globe, Early Wonder and Crosby Egyptian.

No.	Districts
1	Beed

Major findings of the Survey:

1. Average working capital for Beetroot is ₹ 74,229.47 per ha.
2. Price realized for Beetroot is ₹ 1,199.76 per quintal.
3. Average productivity of Beetroot is 224.48 quintals per ha.
4. The contribution of Beetroot is about ₹ 1,90,273.46 per ha.
5. Expenditure in connection with Hired Labour and Mechanical Power used constitutes 41.94 % of the average working capital of Beetroot.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	0	0	1
Talukas	0	0	0	2	0	0	2
Villages	0	0	0	4	0	0	4
Farmer/Holdings	0	0	0	20	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	0	0	0	0
Medium	(1.00 ha – 2.00 ha)	17	8.4	31.34	1.58
Large	(more than 2.00 ha)	03	1.20	13.64	2.93
Total –	All classes	20	9.6	26.97	1.78

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0	7.09	10.87	7.60
Female	0	64.17	62.50	63.95
Total	0	40.80	40.91	40.82

Cost of Cultivation for Beetroot (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	76,171.57	99,173.85	79,046.85
Cost B	0	1,20,074.90	1,57,228.90	1,24,719.15
Cost C	0	1,33,539.19	1,71,478.90	1,38,281.65

Cost of Production of Beetroot (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	353.50	344.95	352.13
Cost B	0	557.25	546.88	555.59
Cost C	0	619.74	596.45	616.01

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	0	2,58,877.98	3,42,416.67	2,69,320.31
By-product	0	0.00	0.00	0.00
Total	0	2,58,877.98	3,42,416.67	2,69,320.31

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	126.00	1,42,000.00	9.60	14,791.67
Fertilizer	Kg	7,350.00	1,08,850.00	9.60	11,338.54
Manures	MT	6.00	12,000.00	0.80	15,000.00
Plant protection chemicals	L	26.00	27,800.00	9.60	2,895.83
Diesel (excluding irrigation)	₹	-	0.00	9.60	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,371.25	9.60	142.84
Other Expenses	₹	-	0.00	9.60	0.00
Irrigation Charges	₹	-	33,371.67	9.60	3,476.22
Incidental Charges	₹	-	88,310.00	9.60	9,198.96

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	2	0	18	20
Average Household size			0	8	0	6	6
Principle source of income	Cultivation		0	2	0	18	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	3	0	32	36
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Vegetables Crop: Carrot

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Daucus carota***
Local Name: Gajar
Harvesting Period: January to March
Common Varieties (major) in the State: Sangro

No.	Districts
1	Buldhana

Major findings of the Survey:

1. Working capital of Carrot is ₹ 69,263.33 per Ha.
2. The price realization for Carrot is ₹ 2,199.76 per quintal.
3. The productivity of Carrot is 292.87 quintals per ha.
4. The contribution of cultivating Carrot is ₹ 5,70,494.45 per ha.
5. The use of Manure is higher than that of fertilizer in case of Carrot.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	0	1	0	1
Talukas	0	0	0	0	2	0	2
Villages	0	0	0	0	3	0	3
Farmer/Holdings	0	0	0	0	20	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	05	1.40	50.00	0.56
Medium	(1.00 ha – 2.00 ha)	12	6.10	28.77	1.77
Large	(more than 2.00 ha)	03	1.20	12.77	3.13
Total –	All classes	20	8.70	26.05	1.67

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	45.57	47.08	50.00	47.23
Female	77.22	77.47	79.33	77.70
Total	67.57	68.16	70.56	68.40

Cost of Cultivation for Carrot (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	88,591.95	70,330.19	73,879.49	73,758.42
Cost B	2,10,900.96	1,72,805.10	1,94,058.16	1,81,866.92
Cost C	2,25,972.39	1,85,969.03	2,07,224.82	1,95,338.19

Cost of Production of Carrot (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	293.21	243.07	246.26	251.84
Cost B	698.02	597.23	646.86	620.97
Cost C	747.90	642.73	690.75	666.97

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	7,28,571.43	6,10,655.74	7,16,666.67	6,44,252.87
By-product	0.00	0.00	0.00	0.00
Total	7,28,571.43	6,10,655.74	7,16,666.67	6,44,252.87

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	36.40	48,600.00	8.70	5,586.21
Fertilizer	Kg	6,050.00	49,210.00	8.70	5,656.32
Manures	MT	47.00	84,400.00	4.70	17,957.45
Plant protection chemicals	L	0.00	0.00	0.00	0.00
Diesel (excluding irrigation)	₹	-	0.00	8.70	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,504.42	8.70	172.92
Other Expenses	₹	-	0.00	8.70	0.00
Irrigation Charges	₹	-	16,506.59	8.70	1,897.31
Incidental Charges	₹	-	67,970.00	8.70	7,812.64

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			3	4	3	10	20
Average Household size			4	8	7	7	7
Principle source of income	Cultivation		3	4	3	10	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	2	3	5	11	21
		Rainfed	2	4	0	6	12
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Rabi Category: Vegetables Crop: Radish

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Raphanus raphanistrum***
Local Name: Mula, Muli
Harvesting Period: January to March
Common Varieties (major) in the State: Rapid red, Arka Nishant, Pusa Himani, Arka Nishant

No.	Districts
1	Akola
2	Beed
3	Sindhudurg

Major findings of the Survey:

1. The working capital of Radish ranges from ₹ 55,828.93 per ha. in Akola to ₹ 65,386.40 per ha. in Sindhudurg district.
2. Price realization for Radish ranges from ₹ 1,244.18 per quintal in Beed to ₹ 1824.14 per quintal in Akola with average rate of ₹ 1,438.01 per quintal.
3. The productivity of Radish varies from district to district with range of 155.56 quintals per ha. in Akola to 240.49 quintals per ha. in Sindhudurg with average productivity 209.15 quintals per ha.
4. The contribution of cultivating Radish ranges from ₹ 2,20,476.85 per ha. in Beed to ₹ 2,29,953.72 per ha. in Sindhudurg.
5. The highest expenditure is on Hired human labour at 53.22 % of the average working capital in case of Radish.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	0	0	1	1	0	3
Talukas	2	0	0	2	2	0	6
Villages	4	0	0	4	4	0	12
Farmer/Holdings	20	0	0	20	20	0	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	23	6.30	39.38	0.70
Medium	(1.00 ha – 2.00 ha)	31	10.70	21.15	1.63
Large	(more than 2.00 ha)	06	1.80	9.38	3.20
Total –	All classes	60	18.80	21.91	1.43

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	20.62	25.51	33.12	24.32
Female	48.37	65.26	70.59	59.74
Total	38.26	51.66	58.49	47.40

Cost of Cultivation for Radish (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	63,506.16	65,729.04	70,819.66	65,471.54
Cost B	1,12,124.07	1,15,221.68	1,18,593.47	1,14,506.48
Cost C	1,50,322.48	1,41,992.71	1,44,926.81	1,45,064.99

Cost of Production of Radish (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	304.25	314.25	339.93	313.36
Cost B	537.17	550.88	569.25	548.05
Cost C	720.18	678.87	695.65	694.30

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,87,920.63	2,93,036.45	2,82,420.00	2,90,305.64
By-product	0.00	0.00	0.00	0.00
Total	2,87,920.63	2,93,036.45	2,82,420.00	2,90,305.64

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	332.50	31,500.00	18.80	1,675.53
Fertilizer	Kg	9,750.00	2,11,520.00	18.80	11,251.06
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	77.50	19,145.00	18.80	1,018.35
Diesel (excluding irrigation)	₹	--	0.00	18.80	0.00
Repair & Maintenance of Machinery & Equipments	₹	--	989.02	18.80	52.61
Other Expenses	₹	--	96,270.00	18.80	5,120.74
Irrigation Charges	₹	--	65,887.86	18.80	3,504.67
Incidental Charges	₹	--	79,760.00	18.80	4,242.55

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			9	0	13	38	60
Average Household size			6	0	6	6	6
Principle source of income	Cultivation		9	0	13	38	60
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	22	0	13	51	86
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	2	6	8

SUMMER CROPS

YEAR: 2018-19

Season: Summer Category: Cereals Crop: Bajra

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Pennisetum glaucum***
Local Name: Bajari
Harvesting Period: April - May
Common Varieties (major) in the State: Mahico, Pioneer.

No.	Districts
1	Latur

Major findings of the Survey:

1. Average working capital for Bajra is ₹ 26077.13 per ha.
2. Price realized for Bajra is ₹1401.18 per quintal.
3. Average productivity of Bajra is 32.60 quintals per ha.
4. The contribution of Bajra is about ₹ 19262.61 per ha.
5. Expenditure in connection with hired labour is at 53.87 % of the working capital of Bajra.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	0	0	1
Talukas	0	0	0	1	0	0	1
Villages	0	0	0	4	0	0	4
Farmer/Holdings	0	0	0	20	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	00	00	00	00
Medium	(1.00 ha – 2.00 ha)	10	4.40	25.58	1.72
Large	(more than 2.00 ha)	10	6.00	19.74	3.04
Total –	All classes	20	10.40	21.85	2.38

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0	100	98.04	98.90
Female	0	100	100	100
Total	0	100	99.23	99.54

Cost of Cultivation for Bajra (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	29,612.59	28,612.25	29,035.47
Cost B	0	41,308.42	40,295.09	40,723.81
Cost C	0	41,308.42	40,345.09	40,752.66

Cost of Production of Bajra (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	917.57	871.44	890.76
Cost B	0	1,279.98	1,227.26	1,249.34
Cost C	0	1,279.98	1,228.78	1,250.23

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	0	45,272.73	45,966.67	45,673.08
By-product	0	2,636.36	2,616.67	2,625.00
Total	0	47,909.09	48,583.33	48,298.08

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	50.40	12,800.00	10.40	1,230.77
Fertilizer	Kg	2,700.00	37,800.00	10.40	3,634.62
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	2.80	1,750.00	2.00	875.00
Diesel (excluding irrigation)	₹	-	0.00	10.40	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	182.20	10.40	17.52
Other Expenses	₹	-	0.00	10.40	0.00
Irrigation Charges	₹	-	310.00	10.40	29.81
Incidental Charges	₹	-	18,410.00	10.40	1,770.19

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			1	2	3	14	20
Average Household size			4	9	5	5	6
Principle source of income	Cultivation		1	2	3	14	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	0	1	11	12
		Rainfed	2	9	5	20	35
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Summer Category: Cereals Crop: Maize

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Zea mays***
Local Name: Makai, Maka
Harvesting Period: February - May
Common Varieties (major) in the State: Pioneer, SG4-105, Hi-tech and Syngenta

No.	Districts
1	Jalgaon

Major findings of the Survey:

1. The working capital for Maize is ₹ 29,921.61 per ha. in Jalgaon.
2. The productivity of Maize is 43.23 quintals per ha.
3. The price realized for Maize is ₹ 1,227.75 per quintal.
4. The contribution of cultivating Maize is ₹ 22,461.31 per ha.
5. The expenses incurred in connection with hired labour and mechanical power constitutes 53.47 % of the average working capital of Maize.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	0	0	0	1
Talukas	0	0	2	0	0	0	2
Villages	0	0	4	0	0	0	4
Farmer/Holdings	0	0	20	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	01	0.60	60.00	01.00
Medium	(1.00 ha – 2.00 ha)	05	04.20	56.76	01.48
Large	(more than 2.00 ha)	14	31.40	35.04	06.40
Total –	All classes	20	36.20	36.94	04.90

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0	0	0	0
Female	44.44	53.93	51.56	51.87
Total	26.67	40.68	39.36	39.31

Cost of Cultivation for Maize (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	54,742.44	40,646.99	32,272.85	33,616.86
Cost B	80,935.52	58,416.71	47,347.64	49,188.60
Cost C	85,602.19	62,440.52	49,669.29	51,746.61

Cost of Production of Maize (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	821.14	805.27	771.80	777.59
Cost B	1,214.03	1,157.31	1,132.30	1,137.78
Cost C	1,284.03	1,237.03	1,187.83	1,196.95

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	93,333.33	58,454.76	51,589.81	53,078.18
By-product	3,000.00	3,000.00	3,000.00	3,000.00
Total	96,333.33	61,454.76	54,589.81	56,078.18

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	639.00	1,07,020.00	36.20	2,956.35
Fertilizer	Kg	9,350.00	1,58,950.00	36.20	4,390.88
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	111.00	1,12,360.00	36.20	3,103.87
Diesel (excluding irrigation)	₹	-	0.00	36.20	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	2,177.21	36.20	60.14
Other Expenses	₹	-	0.00	36.20	0.00
Irrigation Charges	₹	-	67,875.00	36.20	1,875.00
Incidental Charges	₹	-	55,620.00	36.20	1,536.46

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			4	0	4	12	20
Average Household size			6	0	6	5	5
Principle source of income	Cultivation		4	0	4	12	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	22	0	12	64	98
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Summer Category: Cereals Crop: Paddy

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Oryza sativa***
Local Name: Bhat, Sal
Harvesting Period: May - June
Common Varieties (major) in the State: Pioneer, Jaysiram, Sonam, Kranti and Mahico.

No.	Districts
1	Chandrapur
2	Gondia
3	Palghar
4	Raigad
5	Ratnagiri
6	Sindhudurg
7	Thane

Major findings of the Survey:

1. The working capital of Paddy ranges from ₹ 26,118.32 per ha. in Chandrapur to ₹ 85,064.10 per ha. in Ratnagiri.
2. Productivity of Paddy ranges from 25.54 quintals per ha. in Gondia to 47.94 quintals per ha. in Ratnagiri district.
3. Price realization of Paddy ranges from ₹ 1,317.22 per quintal in Chandrapur to ₹ 2,280.98 per quintal in Ratnagiri.
4. The contribution of cultivating Paddy ranges from ₹ (-)14,734.52 per ha. in Sindhudurg to ₹ 53,483.90 per ha. in Raigad.
5. It is noteworthy that expenditure on hired labour and mechanical power constitutes 46.81 % of the cost of cultivation of Paddy.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	5	0	0	0	0	2	7
Talukas	8	0	0	0	0	4	12
Villages	18	0	0	0	0	8	26
Farmer/Holdings	100	0	0	0	0	40	140

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	76	26.42	63.82	0.54
Medium	(1.00 ha – 2.00 ha)	45	34.38	49.27	1.55
Large	(more than 2.00 ha)	19	17.62	24.14	3.84
Total –	All classes	140	78.42	42.58	1.32

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	15.78	15.25	30.80	17.47
Female	53.61	53.39	47.21	52.90
Total	37.64	35.84	39.33	37.39

Cost of Cultivation for Paddy (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	73,246.82	33,540.29	38,123.38	47,947.34
Cost B	87,873.56	45,900.10	51,693.20	61,342.76
Cost C	1,24,018.53	56,452.75	60,333.95	80,087.98

Cost of Production of Paddy (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,512.41	995.78	958.25	1,430.08
Cost B	3,014.11	1,362.73	1,299.34	1,829.61
Cost C	4,253.90	1,676.03	1,516.53	2,388.70

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	60,684.14	63,755.09	70,239.78	64,177.51
By-product	16,621.88	5,616.64	5,737.80	9,351.57
Total	77,306.02	69,371.73	75,977.58	73,529.07

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	2,519.00	2,66,380.00	78.42	3,396.84
Fertilizer	Kg	40,289.00	6,82,895.00	78.42	8,708.17
Manures	MT	160.00	2,53,000.00	22.26	11,365.68
Plant protection chemicals	L	31.75	30,730.00	13.60	2,259.56
Diesel (excluding irrigation)	₹	-	0.00	78.42	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	3,826.67	78.42	48.80
Other Expenses	₹	-	5,000.00	78.42	63.76
Irrigation Charges	₹	-	29,439.84	78.42	375.41
Incidental Charges	₹	-	5,22,869.00	78.42	6,667.55

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	56	36	46	140
Average Household size			6	6	6	6	6
Principle source of income	Cultivation		2	43	30	45	120
	Livestock		0	6	12	0	18
	Other Agricultural Activities		0	3	3	0	6
	Other		0	36	3	0	39
Cultivated Area	Own land	Irrigated	6	18	37	58	120
		Rainfed	0	39	17	9	64
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	7	10	17

Season: Summer Category: Oilseed Crop: Groundnut

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Arachis hypogaea***
Local Name: Groundnut, Bhuimug
Harvesting Period: April to May
Common Varieties (major) in the State: Dhanlaxmi, 305, JL 24, SN55

No.	Districts
1	Akola
2	Sindhudurg
3	Washim
4	Beed
5	Yavatmal

Major findings of the Survey:

1. The working capital of Groundnut ranges from ₹ 46,793.61 per ha. in Akola to ₹ 56,829.70 per ha. in Sindhudurg.
2. The productivity of Groundnut ranges from 24.47 quintals per ha. in Beed to 28.63 quintals per ha. in Sindhudurg.
3. The price realized for Groundnut ranges from ₹ 4,111.03 per quintal in Washim to ₹ 4,663.44 per quintal in Beed district.
4. The contribution of cultivating Groundnut ranges from ₹ 45,136.63 per ha. in Washim to ₹ 69,696.75 per ha. in Akola.
5. The highest expenses are incurred in connection with hired labour at 44.24 % of the average working capital of Groundnut.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	0	0	1	3	0	5
Talukas	2	0	0	2	6	0	10
Villages	4	0	0	4	12	0	20
Farmer/Holdings	20	0	0	20	60	0	100

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	27	6.30	32.81	0.71
Medium	(1.00 ha – 2.00 ha)	65	20.10	20.51	1.51
Large	(more than 2.00 ha)	08	2.90	15.10	2.40
Total –	All classes	100	29.30	21.48	1.36

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	73.08	03.78	0.00	13.70
Female	65.14	93.84	100.00	89.08
Total	66.03	81.57	82.79	78.83

Cost of Cultivation for Groundnut (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	55,689.34	54,758.96	54,970.16	54,979.91
Cost B	79,402.25	76,417.03	75,571.87	76,975.25
Cost C	84,465.74	80,466.78	80,606.36	81,340.44

Cost of Production of Groundnut (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,938.36	2,162.39	2,277.34	2,119.62
Cost B	2,763.72	3,017.65	3,130.83	2,967.60
Cost C	2,939.97	3,177.57	3,339.41	3,135.89

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,26,296.83	1,14,185.07	1,08,400.00	1,16,216.72
By-product	973.02	1,006.47	396.55	938.91
Total	1,27,269.84	1,15,191.54	1,08,796.55	1,17,155.63

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	2,668.00	3,05,510.00	29.30	10,426.96
Fertilizer	Kg	10,650.00	1,50,830.00	26.20	5,756.87
Manures	MT	14.50	16,660.00	2.70	6,170.37
Plant protection chemicals	L	37.00	20,680.00	10.70	1,932.71
Diesel (excluding irrigation)	₹	-	0.00	29.30	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,257.67	29.30	42.92
Other Expenses	₹	-	4,975.00	29.30	169.80
Irrigation Charges	₹	-	1,00,988.13	29.30	3,446.69
Incidental Charges	₹	-	54,570.00	29.30	1,862.46

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			5	13	38	44	100
Average Household size			5	5	5	6	5
Principle source of income	Cultivation		5	13	38	44	100
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	2	2
Cultivated Area	Own land	Irrigated	7	17	47	66	136
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	1	2	3

Season: Summer Category: Fruits Crop: Watermelon

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Citrullus lanatus***
Local Name: Kalingad
Harvesting Period: May
Common Varieties (major) in the State: Kiran, Simran and Vishal

No.	Districts
1	Akola
2	Nashik
3	Osmanabad
4	Solapur
5	Sindhudurg

Major findings of the Survey:

1. Working capital of Watermelon ranges from ₹ 67,351.32 per ha. in Solapur to ₹ 1,02,869.82 per ha. in Nashik.
2. The productivity of Watermelon ranges from 238.17 quintals per ha. in Solapur to 290.50 quintals per ha. in Akola with an average of 267.61 quintals per ha.
3. The price realization for Watermelon ranges from ₹ 1,465.63 per quintal in Sindhudurg to ₹ 2,470.35 per quintal in Akola with average rate of ₹ 1,688.05 per quintal.
4. The contribution of cultivating Watermelon ranges from ₹ 2,84,267.35 per ha. in Solapur to ₹ 6,22,646.04 per ha. in Akola.
5. The expenses incurred in connection with incidental charges contribute 21.66 % of the average working capital of Watermelon.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	1	1	1	1	0	5
Talukas	2	2	3	2	2	0	11
Villages	4	4	4	4	4	0	20
Farmer/Holdings	20	20	20	20	20	0	100

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	10	4.80	60.00	0.80
Medium	(1.00 ha – 2.00 ha)	52	21.00	23.92	1.69
Large	(more than 2.00 ha)	38	18.20	14.49	3.31
Total –	All classes	100	44.00	19.87	2.21

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	50.90	32.29	40.00	37.17
Female	98.58	67.40	87.89	79.46
Total	82.14	51.47	65.17	60.44

Cost of Cultivation for Watermelon (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	99,264.23	86,188.38	84,859.56	87,065.19
Cost B	1,59,433.29	1,63,845.68	1,61,547.49	1,62,413.71
Cost C	1,65,422.88	1,79,500.44	1,73,083.20	1,75,310.30

Per Quintal Cost of Production of Watermelon (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	396.73	312.22	328.05	327.26
Cost B	637.20	593.54	624.50	610.47
Cost C	661.14	650.25	669.10	658.95

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,56,837.08	4,62,416.67	4,56,912.64	4,48,622.23
By-product	416.67	261.90	0.00	170.45
Total	3,57,253.75	4,62,678.57	4,56,912.64	4,48,792.68

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	135.40	1,68,300.00	44.00	3,825.00
Fertilizer	Kg	52,750.00	2,73,050.00	44.00	6,205.68
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	557.50	2,44,150.00	44.00	5,548.86
Diesel (excluding irrigation)	₹	-	0.00	44.00	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,347.99	44.00	30.64
Other Expenses	₹	-	0.00	44.00	0.00
Irrigation Charges	₹	-	1,25,347.56	44.00	2,848.81
Incidental Charges	₹	-	7,81,568.00	44.00	17,762.91

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	24	21	55	100
Average Household size			0	6	6	6	6
Principle source of income	Cultivation		0	24	21	55	100
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	56	34	131	221
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Summer Category: Fruit Crop: Muskmelon

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cucumis melo***
Local Name: Kharbuj
Harvesting Period: February to May
Common Varieties (major) in the State: Haribhari, Pusa Sarbati, Annamalai and Hara Madhu

No.	Districts
1	Aurangabad

Major findings of the Survey:

1. Working capital for Muskmelon is ₹ 92,446.08 per ha.
2. The price realized for a quintal of Muskmelon is ₹ 2,822.34.
3. The productivity for Muskmelon is 269.51 quintals per ha.
4. The contribution of cultivating Muskmelon is about ₹ 6,62,249.02 per ha.
5. The highest expenses are incurred under the head hired labour at 36.15 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	0	0	1
Talukas	0	0	0	2	0	0	2
Villages	0	0	0	5	0	0	5
Farmer/Holdings	0	0	0	20	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	0	0.00	0.00	0.00
Medium	(1.00 ha – 2.00 ha)	13	5.60	22.22	1.94
Large	(more than 2.00 ha)	07	2.60	15.48	2.40
Total –	All classes	20	8.20	19.52	2.10

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0	38.59	39.66	38.98
Female	0	77.26	83.72	79.49
Total	0	60.96	64.01	62.04

Cost of Cultivation for Muskmelon (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	91,923.29	1,12,372.16	98,407.08
Cost B	0	2,12,093.60	2,55,335.55	2,25,804.46
Cost C	0	2,26,852.53	2,72,162.47	2,41,219.09

Cost of Production of Muskmelon (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	0	339.78	420.39	365.13
Cost B	0	783.98	955.21	837.83
Cost C	0	838.53	1,018.16	895.02

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	0	7,17,539.29	8,53,523.08	7,60,656.10
By-product	0	0.00	0.00	0.00
Total	0	7,17,539.29	8,53,523.08	7,60,656.10

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	27.50	35,300.00	8.20	4,304.88
Fertilizer	Kg	12,400.00	57,500.00	8.20	7,012.20
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	124.60	48,810.00	8.20	5,952.44
Diesel (excluding irrigation)	₹	-	0.00	8.20	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	179.50	8.20	21.89
Other Expenses	₹	-	0.00	8.20	0.00
Irrigation Charges	₹	-	21,018.33	8.20	2,563.21
Incidental Charges	₹	-	1,57,500.00	8.20	19,207.32

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	0	1	17	20
Average Household size			6	0	8	5	5
Principle source of income	Cultivation		2	0	1	17	20
	Livestock		0	0	0	1	1
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	1	2	3
Cultivated Area	Own land	Irrigated	4	0	2	36	42
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Summer Category: Vegetables Crop: Cucumber

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cucumis sativus***
Local Name: Kakadi, Khira
Harvesting Period: February-May
Common Varieties (major) in the State: Ashley, Straight 8

No.	Districts
1	Hingoli

Major findings of the Survey:

1. The working capital for Cucumber is ₹ 59,376.25 per ha. in Hingoli.
2. The productivity of Cucumber is 72.58 quintals per ha. in Hingoli.
3. The price realized for Cucumber is ₹ 1,474.93 per quintal.
4. The contribution of cultivating Cucumber is ₹ 43,952.02 per ha.
5. The expense under the head hired labour is highest at 40.48 % of the working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	0	1	0	0	1
Talukas	0	0	0	2	0	0	2
Villages	0	0	0	4	0	0	4
Farmer/Holdings	0	0	0	20	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	04	0.70	25.00	0.70
Medium	(1.00 ha – 2.00 ha)	15	2.20	9.32	1.57
Large	(more than 2.00 ha)	01	0.20	7.14	2.80
Total –	All classes	20	3.10	10.62	1.46

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	13.59	11.80	40.00	13.42
Female	18.70	31.10	100.00	31.80
Total	16.37	21.29	74.47	22.77

Cost of Cultivation for Cucumber (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	58,985.02	63,149.69	76,949.52	63,099.59
Cost B	78,382.99	80,511.49	97,672.48	81,138.02
Cost C	1,45,097.27	1,41,829.67	1,15,672.48	1,40,879.96

Cost of Production of Cucumber (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	809.60	879.30	961.87	869.37
Cost B	1,075.84	1,121.05	1,220.91	1,117.90
Cost C	1,991.53	1,974.84	1,445.91	1,941.01

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,15,285.71	1,02,990.91	1,22,900.00	1,07,051.61
By-product	0.00	0.00	0.00	0.00
Total	1,15,285.71	1,02,990.91	1,22,900.00	1,07,051.61

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	3.98	14,550.00	3.10	4,693.55
Fertilizer	Kg	785.00	17,825.00	3.10	5,750.00
Manures	MT	0.00	0.00	0.00	0.00
Plant protection chemicals	L	24.95	22,450.00	3.10	7,241.94
Diesel (excluding irrigation)	₹	-	0.00	3.10	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	77.44	3.10	24.98
Other Expenses	₹	-	0.00	3.10	0.00
Irrigation Charges	₹	-	9,758.93	3.10	3,148.04
Incidental Charges	₹	-	25,555.00	3.10	8,243.55

General Profile of Households under Survey:

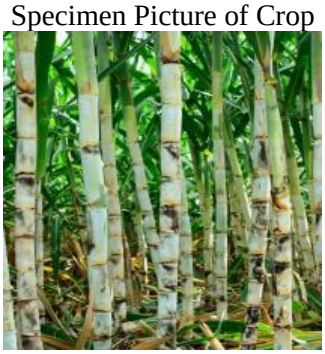
Details /Category			SC	ST	OBC	Other	Total
Nos.			0	1	1	18	20
Average Household size			0	4	6	5	5
Principle source of income	Cultivation		0	1	1	18	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	2	2	26	29
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	1	0	1	2

PERENNIAL CROPS

YEAR: 2018-19

Season: Perennial Category: Sugar Crop: Sugarcane

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Saccharum officinarum***
Local Name: Oos
Harvesting Period: December to March
Common Varieties (major) in the State: CO 265, 312, 671, 3102, 7234, 8005, 10001, 33102, 86032, 92005, 134032, Belwari, 62, Belapur, Bo 128, Co – 800, Co – 775, Local, Karan – 4, Mahamandal, Saigaon, Vikrant.

No.	Districts	No.	Districts
1	Ahmednagar	14	Nanded
2	Amravati	15	Nandurbar
3	Aurangabad	16	Nashik
4	Beed	17	Osmanabad
5	Bhandara	18	Parbhani
6	Buldhana	19	Pune
7	Gondia	20	Sangli
8	Hingoli	21	Satara
9	Jalna	22	Sindhudurg
10	Jalgaon	23	Solapur
11	Kolhapur	24	Wardha
12	Latur	25	Washim
13	Nagpur	26	Yavatmal

Major findings of the Survey:

1. Working Capital for Sugarcane ranges from ₹ 48,940.90 per ha. in Jalna to ₹ 1,51,080.08 per ha. in Satara.
2. The price realization of Sugarcane ranges from ₹ 204.09 per quintal in Solapur to ₹ 280.00 per quintal in Sangli.
3. The contribution of cultivating Sugarcane ranges from ₹ 15,835.77 per ha. in Jalna to ₹ 2,43,786.40 per ha. in Sangli.
4. The average productivity of Sugarcane ranges from ₹ 299.76 quintals per ha. in Jalna to ₹ 1,478.13 quintals per ha. in Hingoli.
5. Composition of cost for Sugarcane is quite peculiar in that fertilizer and manure account for 29.02 % of the cost followed by labour and seed at 24.46 % and 20.98 %.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	5	4	8	4	4	26
Talukas	2	11	7	15	9	8	52
Villages	4	22	15	31	18	16	106
Farmer/Holdings	20	100	80	160	80	80	520

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	55	29.20	73.37	0.72
Medium	(1.00 ha – 2.00 ha)	201	154.50	45.22	1.70
Large	(more than 2.00 ha)	264	397.60	35.78	4.21
Total –	All classes	520	581.30	38.94	2.87

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	41.60	28.01	48.32	41.31
Female	80.44	81.04	92.32	88.83
Total	60.96	47.05	69.33	62.49

Cost of Cultivation for Sugarcane (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,12,443.93	1,06,046.99	1,01,038.33	1,02,942.48
Cost B	1,51,721.01	1,45,935.90	1,36,902.01	1,40,047.46
Cost C	1,61,431.63	1,56,093.83	1,42,043.11	1,46,751.49

Cost of Production of Sugarcane (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	112.29	99.50	107.99	105.74
Cost B	151.51	136.93	146.32	143.86
Cost C	161.21	146.46	151.82	150.75

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,28,486.27	2,33,610.32	2,10,161.91	2,17,314.59
By-product	2,535.96	1,346.93	850.63	1,067.19
Total	2,31,022.23	2,34,957.25	2,11,012.54	2,18,381.78

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	47,35,227.50	1,14,41,461.50	573.90	19,936.33
Fertilizer	Kg	5,51,835.00	94,07,455.00	574.50	16,375.03
Manures	MT	4,491.56	69,29,055.00	439.00	15,783.72
Plant protection chemicals	L	1,790.67	19,15,685.00	407.10	4,705.69
Diesel (excluding irrigation)	₹	-	50,850.00	581.30	87.48
Repair & Maintenance of Machinery & Equipments	₹	-	76,201.24	581.30	131.09
Other Expenses	₹	-	3,08,790.00	581.30	531.21
Irrigation Charges	₹	-	11,82,606.02	581.30	2,034.42
Incidental Charges	₹	-	26,09,632.00	581.30	4,489.30

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			26	39	134	321	520
Average Household size			5	6	5	6	6
Principle source of income	Cultivation		23	26	126	294	469
	Livestock		1	3	11	30	45
	Other Agricultural Activities		0	0	2	14	16
	Other		0	0	6	3	9
Cultivated Area	Own land	Irrigated	60	70	370	817	1,318
		Rainfed	4	6	66	70	147
	Leased land	Irrigated	0	0	20	3	23
		Rainfed	0	0	5	0	5
Awareness of Minimum Support price (Yes)			6	3	35	61	105

Season: Perennial Category: Fruits Crop: Banana

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Musaacuminata***
Local Name: Keli
Harvesting period: October to November
Common Varieties (major) in the State: G-9, Red Banana, Robus

No.	Districts	No.	Districts
1	Ahmednagar	14	Solapur
2	Akola		
3	Amravati		
4	Aurangabad		
5	Beed		
6	Dhule		
7	Hingoli		
8	Jalgaon		
9	Nandurbar		
10	Osmanabad		
11	Palghar		
12	Sangli		
13	Sindhudurg		

Major findings of the Survey:

1. The working capital for Banana ranges from ₹ 43,960.06 per ha. in Hingoli to ₹ 2,29,497.68 per ha. in Dhule.
2. The price realization for Banana ranges from ₹676.74 per quintal in Hingoli to ₹1,194.23 in Solapur with an average rate of ₹ 888.22 per quintal.
3. The productivity of Banana ranges from 407.21 quintals per ha. in Hingoli to 577.50 quintals per ha. in Aurangabad with average productivity of 500.15 quintals per ha.
4. The contribution of cultivating Banana ranges from ₹ 1,54,868.97 per ha. in Sindhudurg to ₹ 4,23,869.07 per ha. in Solapur.
5. The expenditure under the heads Seed and Manure contributes 22.78% and 14.08 % respectively of the average working capital of Banana.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	02	02	04	04	02	00	14
Talukas	03	04	07	08	04	00	26
Villages	08	08	19	17	11	00	63
Farmer/Holdings	40	40	80	80	40	00	280

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	20	11.90	56.40	1.06
Medium	(1.00 ha – 2.00 ha)	91	51.17	33.36	1.69
Large	(more than 2.00 ha)	169	209.70	30.62	4.05
Total –	All classes	280	272.77	31.74	3.07

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	61.55	29.92	34.19	34.25
Female	83.57	62.63	60.59	63.33
Total	72.42	39.28	41.18	42.47

Cost of Cultivation for Banana (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,38,922.20	1,94,017.58	1,44,235.63	1,53,342.61
Cost B	1,92,640.02	2,81,698.12	2,20,696.72	2,30,916.20
Cost C	2,02,043.38	3,01,866.18	2,34,877.70	2,46,011.88

Cost of Production of Banana (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	415.37	376.83	297.27	316.70
Cost B	575.98	547.12	454.85	476.91
Cost C	604.10	586.29	484.08	508.08

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,84,264.71	4,72,953.88	4,19,269.38	4,23,450.49
By-product	0.00	0.00	0.00	0.00
Total	2,84,264.71	4,72,953.88	4,19,269.38	4,23,450.49

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha.
	Unit	Quantity			
Seed	Kg	8,12,205.00	83,59,594.00	272.77	30,647.04
Fertilizer	Kg	2,64,551.30	36,58,335.00	272.77	13,411.79
Manures	MT	3,280.00	53,67,830.00	263.17	20,396.82
Plant protection chemicals	L	2,616.26	24,73,005.00	261.57	9,454.47
Diesel (excluding irrigation)	₹	-	43,450.00	272.77	159.29
Repair & Maintenance of Machinery & Equipments	₹	-	19,432.26	272.77	71.24
Other Expenses	₹	-	29,292.00	272.77	107.39
Irrigation Charges	₹	-	5,26,025.51	272.77	1,928.46
Incidental Charges	₹	-	16,71,337.00	272.77	6,127.28

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			19	43	83	135	280
Average Household size			6	6	5	6	6
Principle source of income	Cultivation		19	43	83	135	280
	Livestock		1	2	0	5	8
	Other Agricultural Activities		0	4	6	6	16
	Other		0	0	0	1	1
Cultivated Area	Own land	Irrigated	55	87	263	416	821
		Rainfed	2	2	8	21	32
	Leased land	Irrigated	0	0	0	3	3
		Rainfed	0	0	0	3	3
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Limes

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Citrus aurantiifolia***
Local Name: Limbu
Harvesting Period: November to January
Common Varieties (major) in the State: PDKV Lime, Phule- Sarbati, Phule-mosambi

No.	Districts
1	Ahmednagar
2	Akola
3	Aurangabad
4	Beed
5	Jalgaon
6	Osmanabad
7	Raigad
8	Solapur

Major findings of the Survey:

1. The working capital for Limes ranges from ₹ 16,695.22 per ha. in Jalgaon to ₹ 1,60,921.84 per ha. in Solapur.
2. The price realization for Limes ranges from ₹ 1,496.37 per quintal in Akola to ₹ 2,404.35 in Solapur.
3. The productivity of Limes ranges from 114.56 quintals per ha. in Jalgaon to 189.89 quintals per ha. in Osmanabad.
4. The contribution of cultivating Limes ranges from ₹ 1,04,476.44 per ha. in Akola to ₹ 2,33,320.27 per ha. in Jalgaon.
5. The expenditure under the head hired human labour is highest at 34.60% along with Manure being higher than fertilizer constituting 23.24 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	01	01	02	03	01	00	08
Talukas	02	02	04	06	02	00	16
Villages	04	04	08	12	04	00	32
Farmer/Holdings	20	20	40	60	20	00	160

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	04	1.36	37.78	0.90
Medium	(1.00 ha – 2.00 ha)	63	25.53	23.41	1.73
Large	(more than 2.00 ha)	93	50.41	16.28	3.33
Total –	All classes	160	77.30	18.31	2.64

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	0.00	5.58	5.33	5.42
Female	36.59	62.51	61.08	61.55
Total	27.78	42.22	42.36	42.25

Cost of Cultivation for Limes (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	66,629.56	81,220.53	1,04,242.25	95,976.48
Cost B	90,425.35	1,27,114.10	1,54,187.16	1,44,123.18
Cost C	95,278.29	1,59,782.91	1,77,251.95	1,70,039.74

Cost of Production of Limes (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,249.88	572.38	737.91	685.89
Cost B	1,696.25	895.80	1,091.46	1,029.97
Cost C	1,787.29	1,126.02	1,254.73	1,215.19

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,22,573.53	2,27,407.18	2,57,404.78	2,45,124.45
By-product	0.00	0.00	0.00	0.00
Total	1,22,573.53	2,27,407.18	2,57,404.78	2,45,124.45

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	58,660.00	7,07,470.00	68.80	10,282.99
Manures	MT	909.85	13,92,300.00	77.13	18,051.81
Plant protection chemicals	L	393.05	4,21,014.00	49.60	8,488.19
Diesel (excluding irrigation)	₹	-	560.00	77.30	7.24
Repair & Maintenance of Machinery & Equipments	₹	-	6,723.59	77.30	86.98
Other Expenses	₹	-	12,500.00	77.30	161.71
Irrigation Charges	₹	-	1,71,540.89	77.30	2,219.16
Incidental Charges	₹	-	5,62,220.00	77.30	7,273.22

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			8	6	37	109	160
Average Household size			5	10	6	5	6
Principle source of income	Cultivation		8	6	37	109	160
	Livestock		2	0	0	0	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	6	6
Cultivated Area	Own land	Irrigated	17	18	88	264	387
		Rainfed	2	1	16	17	36
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Pomegranate

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Punica granatum***
Local Name: Dalimb
Harvesting Period: January - February
Common Varieties (major) in the State: 305, Bhagwa, Super Bhagwa.

No.	Districts
1	Ahmednagar
2	Buldhana
3	Dhule
4	Hingoli
5	Jalna
6	Jalgaon
7	Nashik
8	Osmanabad
9	Pune
10	Sangli
11	Satara
12	Solapur

Major findings of the Survey:

1. The working capital for Pomegranate ranges from ₹ 95,555.71 per ha. in Osmanabad to ₹ 2,92,604.14 per ha. in Hingoli.
2. The price realization for Pomegranate ranges from ₹ 2,458.85 per quintal in Sangli to ₹ 3,593.81 in Ahmednagar.
3. The productivity of Pomegranate ranges from 101.21 quintals per ha. in Pune to 710.29 quintals per ha. in Hingoli.
4. The contribution of cultivating Pomegranate ranges from ₹ 1,30,879.20 per ha. in Jalgaon to ₹ 17,77,393.29 per ha. in Ahmednagar.
5. The expenditure in connection with hired labour and Mechanical power constitutes 48.26% of the average working capital of Pomegranate.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	4	4	3	1	0	12
Talukas	0	7	11	6	2	0	26
Villages	0	17	19	12	4	0	52
Farmer/Holdings	0	80	80	60	20	0	240

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	25	11.10	82.22	0.54
Medium	(1.00 ha – 2.00 ha)	76	40.50	31.84	1.67
Large	(more than 2.00 ha)	139	182.40	24.27	5.41
Total –	All classes	240	234.00	26.23	3.72

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	38.19	31.77	29.29	30.55
Female	65.52	66.82	65.56	65.83
Total	46.87	44.92	44.38	44.67

Cost of Cultivation for Pomegranate (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,91,897.83	1,44,691.27	1,70,447.29	1,67,007.04
Cost B	3,45,190.44	2,62,818.66	3,13,043.75	3,05,875.85
Cost C	3,58,357.11	2,75,948.29	3,21,985.64	3,15,742.95

Cost of Production of Pomegranate (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	638.32	661.25	683.21	677.24
Cost B	1,148.22	1,201.10	1,254.79	1,240.38
Cost C	1,192.02	1,261.10	1,290.63	1,280.39

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	7,99,351.35	5,81,614.81	7,40,112.94	7,15,490.60
By-product	0.00	0.00	0.00	0.00
Total	7,99,351.35	5,81,614.81	7,40,112.94	7,15,490.60

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	2,01,115.00	41,01,630.00	233.60	17,558.35
Manures	MT	1,966.00	26,02,180.00	175.40	14,835.69
Plant protection chemicals	L	3,941.36	1,02,78,300.00	234.00	43,924.36
Diesel (excluding irrigation)	₹	-	12,040.00	234.00	51.45
Repair & Maintenance of Machinery & Equipments	₹	-	18,724.16	234.00	80.02
Other Expenses	₹	-	29,700.00	234.00	126.92
Irrigation Charges	₹	-	5,79,495.94	234.00	2,476.48
Incidental Charges	₹	-	12,73,290.00	234.00	5,441.41

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	15	98	127	240
Average Household size			0	9	6	6	6
Principle source of income	Cultivation		0	15	98	127	240
	Livestock		0	0	0	4	4
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	78	347	468	892
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	3	3

Season: Perennial Category: Fruits Crop: Mandarin

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Citrus reticulata***
Local Name: Mosambi
Harvesting Period: January - February
Common Varieties (major) in the State: Darjiling, Khasi and Kinnow

No.	Districts
1	Ahmednagar
2	Amravati
3	Hingoli
4	Nagpur
5	Washim

Major findings of the Survey:

1. Working Capital for Mandarin ranges from ₹ 19,967.39 per ha. in Hingoli to ₹ 1,08,378.77 per ha. in Washim district.
2. The price realization of Mandarin ranges from ₹ 1,482.94 per quintal in Hingoli to ₹ 2,320.87 in Amravati.
3. The contribution of cultivating Mandarin ranges from ₹ 1,70,425.67 ha. in Hingoli to ₹ 3,61,689.11 per ha. in Washim.
4. The average productivity of Mandarin ranges from 129.36 quintals per ha. in Hingoli to 222.41 quintals per ha. in Washim district
5. The expenditure on hired human labor and incidental charges contributes 24.76% and 12.05% respectively of the average working capital of Mandarin.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	1	2	1	5
Talukas	0	0	1	2	4	2	9
Villages	0	0	4	4	8	4	20
Farmer/Holdings	0	0	20	20	40	20	100

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	39	24.08	80.05	0.77
Medium	(1.00 ha – 2.00 ha)	33	41.90	79.36	1.60
Large	(more than 2.00 ha)	28	86.20	44.46	6.93
Total –	All classes	100	152.18	54.98	2.77

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	64.03	65.83	67.38	66.52
Female	72.52	81.70	98.55	93.75
Total	66.96	72.18	84.21	79.88

Cost of Cultivation for Mandarin (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,10,935.42	56,877.67	59,694.49	67,026.97
Cost B	1,89,385.49	1,10,179.26	1,19,205.20	1,27,824.96
Cost C	1,97,653.76	1,17,236.54	1,26,114.71	1,34,990.15

Cost of Production of Mandarin (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	568.61	384.32	369.95	411.16
Cost B	970.71	744.48	738.77	784.12
Cost C	1,013.09	792.16	781.59	828.07

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	4,14,663.62	2,81,978.52	3,34,254.06	3,32,584.44
By-product	145.35	429.59	203.02	256.28
Total	4,14,808.97	2,82,408.11	3,34,457.08	3,32,840.71

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	46,630.00	10,54,910.00	152.18	6,931.99
Manures	MT	820.88	14,55,525.00	123.90	11,747.58
Plant protection chemicals	L	948.50	15,18,300.00	152.18	9,977.00
Diesel (excluding irrigation)	₹	-	13,200.00	152.18	86.74
Repair & Maintenance of Machinery & Equipments	₹	-	13,584.40	152.18	89.27
Other Expenses	₹	-	2,32,750.00	152.18	1,529.44
Irrigation Charges	₹	-	2,36,547.93	152.18	1,554.40
Incidental Charges	₹	-	9,47,450.00	152.18	6,225.85

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			3	0	32	65	100
Average Household size			6	0	4	5	5
Principle source of income	Cultivation		3	0	32	65	100
	Livestock		0	0	1	0	1
	Other Agricultural Activities		0	0	0	1	1
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	4	0	131	142	277
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			1	0	9	30	40

Season: Perennial Category: Fruits Crop: Grapes

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Vitisvinifera***
Local Name: Drakshe
Harvesting Period: January to April
Common Varieties (major) in the State: Thompson Seedless, Anab-e-Shahi, PandariSahebi, Gulabi, Bhokri, KaliSahebi.

No.	Districts
1	Nashik
2	Satara
3	Sangli
4	Solapur
5	Ahmednagar

Major findings of the Survey:

1. Working Capital for Grapes ranges from ₹ 1,55,255.32 per ha. in Nashik to ₹ 6,01,139.16 per ha. in Ahmednagar.
2. The price realization of Grapes ranges from ₹ 3,553.25 per quintal in Nashik to ₹ 4,151.75 in Solapur.
3. The contribution of cultivating Grapes ranges from ₹ 1,44,938.95 per ha. in Ahmednagar to ₹ 10,21,961.39 per ha. in Nashik.
4. The average productivity of Grapes ranges from 189.00 quintals per ha. in Satara to 336.56 quintals per ha. in Nashik.
5. The highest expenditure is incurred in connection with the head Plant protection chemicals used at 47.75 % of the average working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	3	2	0	0	0	5
Talukas	0	6	5	0	0	0	11
Villages	0	11	11	0	0	0	22
Farmer/Holdings	0	60	40	0	0	0	100

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	15	7.00	52.24	0.89
Medium	(1.00 ha – 2.00 ha)	29	22.30	47.45	1.62
Large	(more than 2.00 ha)	56	86.40	26.26	5.88
Total –	All classes	100	115.70	29.71	3.89

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	63.10	73.06	73.58	71.84
Female	68.31	70.22	78.62	75.07
Total	65.25	72.12	75.42	73.03

Cost of Cultivation for Grapes (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	6,11,365.83	3,08,987.57	2,49,508.92	2,82,865.64
Cost B	8,48,094.39	5,66,434.67	4,95,969.99	5,30,855.32
Cost C	8,84,658.67	5,78,134.22	5,03,981.56	5,41,305.19

Cost of Production of Grapes (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,547.36	1,096.33	941.79	1,060.69
Cost B	3,533.73	2,009.78	1,872.08	1,990.60
Cost C	3,686.08	2,051.30	1,902.32	2,029.78

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	9,60,689.14	10,41,644.13	9,99,413.76	10,05,210.35
By-product	15,357.14	5,201.79	10,283.56	9,611.06
Total	9,76,046.29	10,46,845.92	10,09,697.33	10,14,821.41

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	2,70,700.00	62,91,700.00	115.70	54,379.43
Manures	MT	688.00	13,63,900.00	115.70	11,788.25
Plant protection chemicals	L	12,462.00	1,22,68,000.00	115.70	1,06,032.84
Diesel (excluding irrigation)	₹	-	16,000.00	115.70	138.29
Repair & Maintenance of Machinery & Equipments	₹	-	21,714.29	115.70	187.68
Other Expenses	₹	-	3,160.00	115.70	27.31
Irrigation Charges	₹	-	3,37,203.17	115.70	2,914.46
Incidental Charges	₹	-	12,61,100.00	115.70	10,899.74

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	2	30	66	100
Average Household size			4	7	7	6	6
Principle source of income	Cultivation		2	1	25	52	80
	Livestock		2	1	1	20	24
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	16	2	98	273	388
		Rainfed	0	0	1	0	1
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Mango

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Mangifera indica***
Local Name: Aamba
Harvesting Period: April - June
Common Varieties (major) in the State: Nilam, Payari, Hapus, Kesar

No.	Districts
1	Akola
2	Aurangabad
3	Hingoli
4	Osmanabad
5	Palghar
6	Raigad
7	Ratnagiri
8	Sangli
9	Sindhudurg
10	Thane

Major findings of the Survey:

1. The working capital for Mango ranges from ₹ 31,225.86 per ha. in Ratnagiri to ₹ 2,35,231.73 per ha. in Hingoli.
2. The price realization for Mango ranges from ₹ 3,675.78 per quintal in Thane to ₹ 7,580.00 in Raigad.
3. The productivity of Mango ranges from 57.73 quintals per ha. in Raigad to 164.61 quintals per ha. in Ratnagiri.
4. The contribution of cultivating Mango ranges from ₹ 72,510.59 per ha. in Osmanabad to ₹ 9,13,626.03 per ha. in Ratnagiri.
5. The expenditure under the head Plant Protection Chemicals is highest contributing 30.38% whereas expenses under Manure is higher than that of fertilizer at 14.08% of the average working capital of Mango.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	05	1	0	3	1	0	10
Talukas	09	2	0	6	2	0	19
Villages	17	4	0	12	4	0	37
Farmer/Holdings	100	20	0	60	20	0	200

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	40	18.64	71.69	0.65
Medium	(1.00 ha – 2.00 ha)	78	39.82	31.45	1.62
Large	(more than 2.00 ha)	82	56.34	18.23	3.77
Total –	All classes	200	114.80	24.87	2.31

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	63.16	33.23	31.86	38.29
Female	61.03	64.37	73.28	66.40
Total	61.96	42.78	45.21	49.07

Cost of Cultivation for Mango (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,66,517.97	1,37,687.15	1,49,886.81	1,48,355.58
Cost B	2,99,681.01	2,44,714.73	2,40,704.86	2,51,671.66
Cost C	3,23,999.68	2,67,537.43	2,66,114.87	2,76,007.02

Cost of Production of Mango (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,177.06	1,349.75	1,737.93	1,473.54
Cost B	2,118.34	2,398.95	2,790.97	2,499.73
Cost C	2,290.24	2,622.68	3,085.60	2,741.44

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	6,78,795.06	5,75,648.17	4,95,384.81	5,53,005.49
By-product	0.00	0.00	0.00	0.00
Total	6,78,795.06	5,75,648.17	4,95,384.81	5,53,005.49

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	94,102.00	13,79,255.00	114.80	12,014.42
Manures	MT	1,604.00	23,68,600.00	112.00	21,148.21
Plant protection chemicals	L	3,480.90	47,45,955.00	86.70	54,739.97
Diesel (excluding irrigation)	₹	-	0.00	114.80	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	13,694.74	114.80	119.29
Other Expenses	₹	-	400.00	114.80	3.48
Irrigation Charges	₹	-	4,29,452.32	114.80	3,740.87
Incidental Charges	₹	-	18,18,193.00	114.80	15,837.92

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			2	20	77	101	200
Average Household size			5	7	6	5	6
Principle source of income	Cultivation		2	20	77	101	200
	Livestock		1	0	0	1	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	6	30	128	280	445
		Rainfed	0	9	8	0	17
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Sapota

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Manilkara zapota***
Local Name: Chiku
Harvesting Period: January to February
Common Varieties (major) in the State: Chhatri, Cricket ball, Kalipatti.

No.	Districts
1	Akola
2	Aurangabad
3	Beed
4	Osmanabad
5	Palghar
6	Raigad
7	Sindhudurg

Major findings of the Survey:

1. The working capital for Sapota ranges from ₹ 89,825.16 per ha. in Beed to ₹ 1,90,477.76 per ha. in Raigad.
2. The price realization for Sapota ranges from ₹ 1,754.56 per quintal in Akola to ₹ 2,813.97 in Osmanabad.
3. The productivity of Sapota ranges from 85.00 quintals per ha. in Raigad to 159.37quintals per ha. in Palghar.
4. The contribution of cultivating Sapota ranges from ₹ 20,946.07 per ha. in Raigad to ₹ 1,72,367.68 per ha. in Palghar.
5. The expenditure in connection with hired labour and Mechanical power constitutes 41.10 % of the average working capital of Sapota.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	3	0	0	3	1	0	7
Talukas	6	0	0	6	2	0	14
Villages	12	0	0	12	4	0	28
Farmer/Holdings	60	0	0	60	20	0	140

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	18	2.24	29.95	0.42
Medium	(1.00 ha – 2.00 ha)	57	26.96	26.33	1.80
Large	(more than 2.00 ha)	65	40.04	18.53	3.32
Total –	All classes	140	69.24	21.24	2.33

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	15.36	14.37	32.16	25.09
Female	0	28.77	51.21	42.22
Total	15.36	18.19	36.42	28.91

Cost of Cultivation for Sapota (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,92,845.85	1,54,708.21	1,31,951.43	1,42,782.26
Cost B	2,33,514.14	2,03,473.08	1,81,494.49	1,91,735.20
Cost C	2,67,331.10	2,18,929.32	1,96,556.93	2,07,557.70

Cost of Production of Sapota (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,633.99	1,101.67	915.97	1,017.31
Cost B	3,189.46	1,448.93	1,259.89	1,366.10
Cost C	3,651.35	1,558.99	1,364.45	1,478.83

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,16,317.86	2,70,708.83	2,77,051.70	2,72,617.16
By-product	0.00	0.00	0.00	0.00
Total	2,16,317.86	2,70,708.83	2,77,051.70	2,72,617.16

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	83,350.00	8,17,245.00	69.24	11,803.08
Manures	MT	1,706.00	23,10,110.00	60.04	38,476.18
Plant protection chemicals	L	797.17	12,32,760.00	46.80	26,341.03
Diesel (excluding irrigation)	₹	-	0.00	69.24	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	3,459.43	69.24	49.96
Other Expenses	₹	-	1,000.00	69.24	14.44
Irrigation Charges	₹	-	1,45,101.14	69.24	2,095.63
Incidental Charges	₹	-	9,18,810.00	69.24	13,269.93

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			7	7	37	89	140
Average Household size			7	9	6	6	6
Principle source of income	Cultivation		7	7	37	89	140
	Livestock		0	0	0	6	6
	Other Agricultural Activities		0	0	0	0	0
	Other		2	0	2	4	8
Cultivated Area	Own land	Irrigated	18	15	91	173	298
		Rainfed	4	0	3	22	28
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Sweet Orange

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Citrus X sinensis***
Local Name: Santri
Harvesting Period: After 240 -280 days
Common Varieties (major) in the State: Hamlin, Pera, Natal, Valencia and Westin

No.	Districts
1	Akola
2	Aurangabad
3	Beed
4	Jalna
5	Jalgaon
6	Hingoli
7	Nagpur

Major findings of the Survey:

1. The working capital for Sweet Orange ranges from ₹ 61,070.83 per ha. in Jalna to ₹ 1,17,634.00 per ha. in Aurangabad.
2. The price realization for Sweet Orange ranges from ₹1,890.16 per quintal in Akola to ₹ 2,785.86 in Nagpur.
3. The productivity of Sweet Orange ranges from ₹ 98.12 quintals per ha. in Nagpur to ₹ 191.79 quintals per ha. in Aurangabad.
4. The contribution of cultivating Sweet Orange ranges from ₹ 1,89,254.11 per ha. in Nagpur to ₹ 2,84,010.39 per ha. in Hingoli.
5. The cost composition is highest under the head hired labour at 43.69% of the average working capital of Sweet Orange.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	0	1	4	1	1	7
Talukas	0	0	2	8	2	2	14
Villages	0	0	4	16	4	5	29
Farmer/Holdings	0	0	20	80	20	20	140

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	38	30.88	99.36	0.82
Medium	(1.00 ha – 2.00 ha)	71	78.04	62.83	1.75
Large	(more than 2.00 ha)	31	60.60	53.25	3.67
Total –	All classes	140	169.52	63.00	1.92

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	73.77	89.68	89.32	86.53
Female	76.80	90.16	89.99	87.73
Total	74.62	89.82	89.52	86.89

Cost of Cultivation for Sweet Orange (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	86,229.99	83,702.48	76,531.78	81,599.52
Cost B	1,48,310.41	1,51,935.16	1,33,203.25	1,44,578.59
Cost C	1,58,221.35	1,55,831.24	1,36,397.15	1,49,319.33

Cost of Production of Sweet Orange (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	551.19	492.47	568.43	526.88
Cost B	948.01	893.92	989.35	933.53
Cost C	1,011.36	916.85	1,013.07	964.14

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,25,514.90	3,54,475.65	2,92,636.14	3,27,093.74
By-product	391.84	283.19	0.00	201.75
Total	3,25,906.74	3,54,758.84	2,92,636.14	3,27,295.48

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	91,230.00	16,97,850.00	168.92	10,051.21
Manures	MT	882.00	9,15,995.00	65.08	14,074.91
Plant protection chemicals	L	804.50	14,92,450.00	169.52	8,803.98
Diesel (excluding irrigation)	₹	-	11,100.00	169.52	65.48
Repair & Maintenance of Machinery & Equipments	₹	-	27,084.89	169.52	159.77
Other Expenses	₹	-	1,20,950.00	169.52	713.49
Irrigation Charges	₹	-	3,98,093.15	169.52	2,348.36
Incidental Charges	₹	-	16,62,400.00	169.52	9,806.51

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			7	3	65	65	140
Average Household size			6	6	5	5	5
Principle source of income	Cultivation		7	3	65	65	140
	Livestock		0	0	0	2	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	1	2	3
Cultivated Area	Own land	Irrigated	15	8	129	116	269
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			1	0	0	19	20

Season: Perennial Category: Fruits Crop: Papaya

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Carica papaya***
Local Name: Papai
Harvesting Period: After 6 months of plantation
Common Varieties (major) in the State: Bonsai Honey, Co – 1, Co – 2, Co – 6, Coorg Green, Honey Dew, Honey gold, Pusa Delicious, Pusa Dwarf, Pusananha, Ranchi, Red lady, Sunrise solo, Taiwan.

No.	Districts
1	Aurangabad
2	Beed
3	Dhule
4	Hingoli
5	Nandurbar
6	Osmanabad
7	Raigad
8	Sindhudurg

Major findings of the Survey:

1. The working capital for Papaya ranges from ₹ 74,491.55 per ha. in Raigad to ₹ 1,66,017.87 per ha. in Nandurbar.
2. The price realization for Papaya ranges from ₹ 489.66 per quintal in Hingoli to ₹ 1,499.20 in Osmanabad.
3. The productivity of Papaya ranges from 85.94 quintals per ha. in Raigad to 1,035.71 quintals per ha. in Hingoli.
4. The contribution of cultivating Papaya ranges from ₹ 9,909.07 per ha. in Raigad to ₹ 10,21,803.19 per ha. in Osmanabad.
5. The cost composition is highest under the head seed at 23.36 % of the average working capital of Papaya.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	2	0	2	4	0	0	8
Talukas	4	0	3	8	0	0	15
Villages	8	0	7	17	0	0	32
Farmer/Holdings	40	0	40	80	0	0	160

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	32	9.92	60.37	0.51
Medium	(1.00 ha – 2.00 ha)	44	25.08	34.45	1.65
Large	(more than 2.00 ha)	84	74.48	21.30	4.16
Total –	All classes	160	109.48	24.95	2.74

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	30.26	52.04	64.57	58.80
Female	41.99	73.47	81.23	77.14
Total	34.67	61.13	72.21	66.95

Cost of Cultivation for Papaya (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,16,537.28	1,40,390.75	1,55,044.89	1,48,198.70
Cost B	1,95,356.00	2,39,374.51	2,37,652.17	2,34,214.26
Cost C	2,14,499.14	2,55,144.05	2,48,374.51	2,46,855.84

Cost of Production of Papaya (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	181.06	190.22	324.79	268.40
Cost B	303.51	324.34	497.83	424.18
Cost C	333.25	345.71	520.29	447.08

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	4,52,518.55	5,69,334.53	4,68,511.14	4,90,158.97
By-product	0.00	0.00	0.00	0.00
Total	4,52,518.55	5,69,334.53	4,68,511.14	4,90,158.97

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	3,45,772.00	25,96,810.00	109.48	23,719.49
Fertilizer	Kg	2,46,213.00	38,54,270.00	109.48	35,205.24
Manures	MT	1,201.90	14,40,630.00	100.78	14,294.80
Plant protection chemicals	L	651.25	8,93,555.00	107.88	8,282.86
Diesel (excluding irrigation)	₹	-	6,320.00	109.48	57.73
Repair & Maintenance of Machinery & Equipments	₹	-	14,577.43	109.48	133.15
Other Expenses	₹	-	11,620.00	109.48	106.14
Irrigation Charges	₹	-	2,48,960.89	109.48	2,274.03
Incidental Charges	₹	-	15,24,405.00	109.48	13,924.05

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			6	11	54	89	160
Average Household size			4	8	6	6	6
Principle source of income	Cultivation		6	11	54	89	160
	Livestock		1	0	0	8	9
	Other Agricultural Activities		0	0	0	16	16
	Other		2	0	1	2	5
Cultivated Area	Own land	Irrigated	19	31	169	211	430
		Rainfed	0	0	0	8	8
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Guava

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Psidium guajava***
Local Name: Peru
Harvesting Period: March to April
Common Varieties (major) in the State: Arka Amulya, Arka Mrudula and Sardar

No.	Districts
1	Sindhudurg
2	Osmanabad
3	Dhule
4	Pune
5	Buldhana
6	Raigad

Major findings of the Survey:

1. The working capital for Guava ranges from ₹ 49,086.95 per ha. in Raigad to ₹ 1,43,124.52 per ha. in Dhule.
2. The price realization for Guava ranges from ₹ 1,427.45 per quintal in Dhule to ₹ 4,020.14 in Osmanabad with an average rate of ₹ 2,037.54 per quintal.
3. The productivity of Guava ranges from 141.31 quintals per ha. in Dhule to 225.68 quintals per ha. in Osmanabad.
4. The contribution of cultivating Guava ranges from ₹ 41,389.33 per ha. in Dhule to ₹ 8,44,980.85 per ha. in Osmanabad.
5. The expenditure incurred in connection with heads Hired labour and Mechanical power constitutes 51.44 % along with Plant Protection Chemicals constituting 26.89% of the average working capital in case of Guava.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	2	1	1	1	1	0	6
Talukas	4	2	2	2	2	0	12
Villages	8	4	4	4	4	0	24
Farmer/Holdings	40	20	20	20	20	0	120

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	7	2.70	47.37	0.81
Medium	(1.00 ha – 2.00 ha)	52	22.30	25.49	1.68
Large	(more than 2.00 ha)	61	31.10	15.37	3.32
Total –	All classes	120	56.10	18.98	2.46

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	51.18	32.10	54.94	47.95
Female	54.72	51.73	58.76	55.77
Total	51.65	35.37	55.37	48.98

Cost of Cultivation for Guava (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,40,781.96	1,02,441.52	94,440.33	99,851.18
Cost B	2,09,944.83	1,69,228.64	1,67,013.86	1,69,960.44
Cost C	2,28,926.32	1,85,697.25	1,84,639.26	1,87,191.28

Cost of Production of Guava (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	808.75	602.44	547.45	581.87
Cost B	1,206.07	995.20	968.15	990.42
Cost C	1,315.11	1,092.05	1,070.32	1,090.83

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,58,333.33	3,53,035.87	3,91,726.69	3,74,739.75
By-product	0.00	0.00	0.00	0.00
Total	3,58,333.33	3,53,035.87	3,91,726.69	3,74,739.75

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	30,250.00	2,85,310.00	56.10	5,085.74
Manures	MT	341.50	4,77,700.00	54.10	8,829.94
Plant protection chemicals	L	861.70	12,86,160.00	46.90	27,423.45
Diesel (excluding irrigation)	₹	-	0.00	56.10	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	2,732.08	56.10	48.70
Other Expenses	₹	-	0.00	56.10	0.00
Irrigation Charges	₹	-	57,501.94	56.10	1,024.99
Incidental Charges	₹	-	2,71,835.00	56.10	4,845.54

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	10	110	120
Average Household size			0	0	6	5	5
Principle source of income	Cultivation		0	0	10	110	120
	Livestock		0	0	0	2	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	0	18	192	210
		Rainfed	0	0	5	81	86
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Custard Apple

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Annona reticulata***
Local name: Sitafal
Harvesting Period: August to October
Common Varieties (major) in the State: Red Sitaphal, Balanagari, Washington and Purandhar

No.	Districts
1	Nandurbar
2	Pune
3	Raigad

Major findings of the Survey:

1. The working capital for Custard Apple ranges from ₹ 50,179.35 per ha. in Nandurbar to ₹ 97,325.49 per ha. in Pune.
2. The price realization for Custard Apple ranges from ₹ 3,178.36 per quintal in Nandurbar to ₹ 11,120.05 in Pune.
3. The productivity of Custard Apple ranges from 14.41 quintals per ha. in Pune to 76.37 quintals per ha. in Raigad.
4. The contribution of cultivating Custard Apple ranges from ₹ 51,180.30 per ha. in Pune to ₹ 1,77,056.32 per ha. in Raigad.
5. The cost composition is highest in case of Manure at 27.45 % of the average working capital of Custard Apple.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	01	01	01	00	00	00	03
Talukas	02	01	01	00	00	00	04
Villages	04	04	01	00	00	00	09
Farmer/Holdings	20	20	20	00	00	00	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	29	10.04	65.88	0.53
Medium	(1.00 ha – 2.00 ha)	25	14.60	35.27	1.66
Large	(more than 2.00 ha)	06	2.60	16.25	2.67
Total –	All classes	60	27.24	37.50	1.21

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	43.93	77.90	68.75	61.23
Female	66.96	84.90	74.07	76.74
Total	53.33	81.33	71.19	68.23

Cost of Cultivation for Custard Apple (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	95,934.26	69,659.08	91,346.79	81,413.52
Cost B	1,63,966.78	1,24,162.05	1,53,154.07	1,41,600.33
Cost C	1,77,851.25	1,28,179.18	1,61,615.60	1,49,678.53

Cost of Production of Custard Apple (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,126.23	1,635.08	2,526.61	1,897.10
Cost B	3,634.05	2,914.41	4,236.18	3,299.57
Cost C	3,941.78	3,008.71	4,470.22	3,487.80

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,48,505.18	1,57,817.74	1,13,576.15	1,87,020.15
By-product	0.00	0.00	0.00	0.00
Total	2,48,505.18	1,57,817.74	1,13,576.15	1,87,020.15

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	15,950.00	3,54,227.00	27.24	13,003.93
Manures	MT	746.00	5,21,800.00	27.24	19,155.65
Plant protection chemicals	L	190.00	2,49,770.00	15.44	16,176.81
Diesel (excluding irrigation)	₹	-	0.00	27.24	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	5,947.48	27.24	218.34
Other Expenses	₹	-	0.00	27.24	0.00
Irrigation Charges	₹	-	1,15,400.00	27.24	4,236.42
Incidental Charges	₹	-	1,63,698.00	27.24	6,009.47

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	38	0	22	60
Average Household size			0	7	0	5	6
Principle source of income	Cultivation		0	38	0	22	60
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	58	0	3	62
		Rainfed	0	0	0	11	11
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Fig

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Ficus carica***
Local Name: Anjir
Harvesting Period: February – March
Common Varieties (major) in the State: Cali Myrna, Dinkar and Daulatabad

No.	Districts
1	Pune

Major findings of the Survey:

1. Working capital for Fig is ₹ 2,62,801.78 per ha. in Pune.
2. The price realization for Fig is ₹ 4,549.95 per quintal.
3. The productivity of Fig is 380.46 quintals per ha. Pune.
4. The contribution of cultivating Fig is ₹ 14,36,684.48 per ha.
5. The expenditure on irrigation is negligible at 0.74 % with Fertilizers and Plant Protection Chemicals contributing together 54% of total working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	00	01	00	00	00	00	01
Talukas	00	01	00	00	00	00	01
Villages	00	03	00	00	00	00	03
Farmer/Holdings	00	20	00	00	00	00	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	00	0.00	0.00	0.00
Medium	(1.00 ha – 2.00 ha)	10	5.00	29.07	1.72
Large	(more than 2.00 ha)	10	3.70	11.86	3.12
Total –	All classes	20	8.70	17.98	2.42

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	00	3.87	26.71	16.70
Female	00	24.24	35.85	31.40
Total	00	5.15	27.42	17.74

Cost of Cultivation for Fig (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	00	2,37,957.72	3,70,650.10	2,94,390.11
Cost B	00	5,60,550.54	6,83,676.10	6,12,914.29
Cost C	00	5,89,870.54	7,22,892.32	6,46,443.02

Cost of Production of Fig (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	00	619.68	986.62	773.77
Cost B	00	1,459.77	1,819.86	1,610.98
Cost C	00	1,536.12	1,924.25	1,699.11

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	00	17,79,250.00	16,65,972.70	17,31,074.60
By-product	00	0.00	0.00	0.00
Total	00	17,79,250.00	16,65,972.70	17,31,074.60

Inputs under consideration for valuation of Gross Value Added:

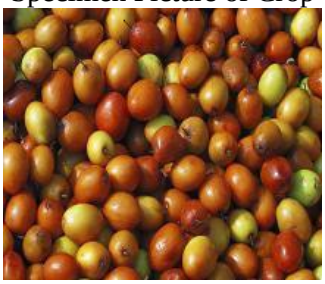
Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	11,170.00	7,08,250.00	8.70	81,408.05
Manures	MT	301.00	4,45,800.00	8.70	51,241.38
Plant protection chemicals	L	175.50	5,26,610.00	8.70	60,529.89
Diesel (excluding irrigation)	₹	-	0.00	8.70	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,150.57	8.70	132.25
Other Expenses	₹	-	0.00	8.70	0.00
Irrigation Charges	₹	-	16,964.93	8.70	1,949.99
Incidental Charges	₹	-	1,46,400.00	8.70	16,827.59

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	2	10	8	20
Average Household size			0	10	6	7	7
Principle source of income	Cultivation		0	2	10	8	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	6	24	19	48
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Ber

Specimen Picture of Crop



General Profile of Crop

Scientific Name: ***Ziziphus mauritiana***
Local Name: Bor
Harvesting period: November to January
Common Varieties (major) in the State: Apple ber, Umran, Kaithali

No.	Districts
1	Solapur

Major findings of the Survey:

1. Working capital for Ber is ₹ 1,90,042.88 per ha. in Solapur.
2. The price realization for Ber is ₹ 912.77 per quintal.
3. The productivity in case of Ber is 592.57 quintals per ha. in Solapur.
4. The contribution of cultivating Ber is ₹ 3,27,992.67 per ha.
5. The cost composition under the head Hired labour is highest at 35.75 % of the working capital and followed by Plant protection chemicals at 26.74 % in case of Ber.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	00	01	00	00	00	00	01
Talukas	00	02	00	00	00	00	02
Villages	00	04	00	00	00	00	04
Farmer/Holdings	00	20	00	00	00	00	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	00	00	00	00
Medium	(1.00 ha – 2.00 ha)	13	8.20	34.17	1.85
Large	(more than 2.00 ha)	07	6.60	25.38	3.71
Total –	All classes	20	14.80	29.60	2.50

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	00	00	00	00
Female	00	56.37	58.79	57.45
Total	00	16.94	18.37	17.56

Cost of Cultivation for Ber (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	00	2,13,233.73	2,12,453.32	2,12,885.71
Cost B	00	3,12,736.50	3,12,671.26	3,12,707.41
Cost C	00	3,31,742.60	3,30,716.71	3,31,285.11

Cost of Production of Ber (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	00	360.52	357.70	359.26
Cost B	00	528.75	526.44	527.72
Cost C	00	560.88	556.82	559.07

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	00	5,39,634.15	5,42,424.24	5,40,878.38
By-product	00	0.00	0.00	0.00
Total	00	5,39,634.15	5,42,424.24	5,40,878.38

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	15,600.00	3,40,000.00	14.80	22,972.97
Manures	MT	84.00	1,26,600.00	9.40	13,468.09
Plant protection chemicals	L	383.00	7,52,000.00	14.80	50,810.81
Diesel (excluding irrigation)	₹	-	0.00	14.80	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	431.13	14.80	29.13
Other Expenses	₹	-	0.00	14.80	0.00
Irrigation Charges	₹	-	37,603.48	14.80	2,540.78
Incidental Charges	₹	-	26,300.00	14.80	1,777.03

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	12	8	20
Average Household size			0	0	6	5	5
Principle source of income	Cultivation		0	0	12	8	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	0	23	27	50
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Category: Fruits Crop Name: Strawberry

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Fragaria ananassa***
Local Name: Strawberry
Harvesting Period: September to February
Common Varieties (major) in the State: Kamraj, Sweet Charli

No.	Districts
1	Satara

Major findings of the Survey:

1. Working capital for Strawberry is ₹ 2,56,348.02 per ha. in Satara.
2. The price realization for Strawberry is ₹ 4,317.57 per quintal.
3. The productivity in case of Strawberry is 206.46 quintals per ha. in Satara.
4. The contribution of cultivating Strawberry is ₹ 6,04,238.34 per ha.
5. The cost composition under the head seed is highest at 39.67 % of the working capital in case of Strawberry.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	0	1	0	0	0	0	1
Talukas	0	1	0	0	0	0	1
Villages	0	2	0	0	0	0	2
Farmer/Holdings	0	20	0	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	5	1.20	25.00	0.96
Medium	(1.00 ha – 2.00 ha)	5	1.40	19.44	1.44
Large	(more than 2.00 ha)	10	7.00	10.61	6.60
Total –	All classes	20	9.60	12.31	3.90

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	86.49	0	80.49	83.56
Female	100	0	91.02	95.55
Total	91.84	0	84.75	88.36

Cost of Cultivation for Strawberry (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	5,35,779.18	4,18,360.73	2,18,300.27	2,87,160.62
Cost B	7,79,966.56	6,12,181.08	3,52,910.10	4,44,102.51
Cost C	7,88,716.56	6,12,181.08	3,55,288.68	4,46,930.64

Cost of Production of Strawberry (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,669.96	1,541.33	1,255.63	1,390.89
Cost B	2,431.06	2,255.40	2,029.89	2,151.05
Cost C	2,458.34	2,255.40	2,043.57	2,164.75

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	13,71,364.17	10,89,710.00	7,69,457.00	8,91,398.96
By-product	0.00	0.00	0.00	0.00
Total	13,71,364.17	10,89,710.00	7,69,457.00	8,91,398.96

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	24,300.00	9,76,200.00	9.60	1,01,687.50
Fertilizer	Kg	7,370.00	1,58,300.00	9.60	16,489.58
Manures	MT	54.00	67,500.00	9.60	7,031.25
Plant protection chemicals	L	51.00	3,45,100.00	9.60	35,947.92
Diesel (excluding irrigation)	₹	-	0.00	9.60	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	1,690.35	9.60	176.08
Other Expenses	₹	-	0.00	9.60	0.00
Irrigation Charges	₹	-	14,890.61	9.60	1,551.11
Incidental Charges	₹	-	1,88,700.00	9.60	19,656.25

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	0	8	12	20
Average Household size			0	0	8	6	7
Principle source of income	Cultivation		0	0	8	12	20
	Livestock		0	0	0	2	2
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	0	22	56	78
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Fruits Crop: Jackfruit

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Artocarpus heterophyllus***
Local Name: Fanas
Harvesting Period: July to August
Common Varieties (major) in the State: Local

No.	Districts
1	Sindhudurg

Major findings of the Survey:

1. Working capital for Jackfruit is ₹ 94,007.57 per ha. in Sindhudurg.
2. The price realization for Jackfruit is ₹ 2,052.51 per quintal.
3. The productivity in case of Jackfruit is 203.69 quintals per ha. Sindhudurg.
4. The contribution of cultivating Jackfruit is ₹ 3,13,258.34 per ha.
5. The cost composition under the head Hired labour is highest at 44.91 % with Incidental charges contributing 21.72% of the working capital of Jackfruit.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	1	0	0	0	0	0	1
Talukas	2	0	0	0	0	0	2
Villages	4	0	0	0	0	0	4
Farmer/Holdings	20	0	0	0	0	0	20

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	10	7.36	84.79	0.87
Medium	(1.00 ha – 2.00 ha)	10	7.00	39.33	1.78
Large	(more than 2.00 ha)	0	0.00	0.00	0.00
Total –	All classes	20	14.36	54.23	1.32

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	98.91	100	0	99.51
Female	100	100	0	100
Total	99.29	100	0	99.70

Cost of Cultivation for Jackfruit (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	82,725.14	1,29,050.47	0	1,05,307.12
Cost B	1,55,552.05	2,25,387.25	0	1,89,594.28
Cost C	1,55,823.79	2,25,387.25	0	1,89,733.55

Cost of Production of Jackfruit (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	446.05	579.07	0	516.99
Cost B	838.73	1,011.35	0	930.79
Cost C	840.19	1,011.35	0	931.48

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,64,334.24	4,74,585.71	0	4,18,077.99
By-product	407.61	571.43	0	487.47
Total	3,64,741.85	4,75,157.14	0	4,18,565.46

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	14,760.00	1,91,560.00	14.36	13,339.83
Manures	MT	80.00	11,000.00	0.60	18,333.33
Plant protection chemicals	L	137.00	2,10,400.00	14.36	14,651.81
Diesel (excluding irrigation)	₹	-	0.00	14.36	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	2,460.73	14.36	171.36
Other Expenses	₹	-	2,700.00	14.36	188.02
Irrigation Charges	₹	-	35,028.02	14.36	2,439.28
Incidental Charges	₹	-	2,93,200.00	14.36	20,417.83

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			1	0	15	4	20
Average Household size			6	0	4	5	5
Principle source of income	Cultivation		1	0	15	4	20
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	2	0	20	5	26
		Rainfed	0	0	0	0	0
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Plantation Crop: Arecanut

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Areca catechu***
Local Name: Supari
Harvesting Period: November to March
Common Varieties (major) in the State: Mohitnagar, Srimangala, Samruthi

No.	Districts
1	Sindhudurg
2	Raigad
3	Ratnagiri

Major findings of the Survey:

1. The working capital for Arecanut ranges from ₹ 26,010.09 per ha. in Ratnagiri to ₹ 35,871.96 per ha. in Raigad.
2. The price realization for Arecanut ranges from ₹ 1,169.85 per quintal in Sindhudurg to ₹ 9,507.94 in Ratnagiri with an average rate of ₹ 5,628.76 per quintal.
3. The productivity of Arecanut ranges from 3.42 quintals per ha. in Ratnagiri to 123.70 quintals per ha. in Sindhudurg.
4. The contribution of cultivating Arecanut ranges from ₹ 4,833.89 per ha. in Ratnagiri to ₹ 1,15,475.87 per ha. in Sindhudurg.
5. The expenditure under the head Manure contributes 26.02% of the average working capital of Arecanut.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	03	00	00	00	00	00	03
Talukas	05	00	00	00	00	00	05
Villages	09	00	00	00	00	00	09
Farmer/Holdings	60	00	00	00	00	00	60

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	28	7.52	58.66	0.46
Medium	(1.00 ha – 2.00 ha)	21	16.60	49.58	1.59
Large	(more than 2.00 ha)	11	16.40	47.40	3.15
Total –	All classes	60	40.52	50.09	1.35

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	50.23	56.97	57.74	55.19
Female	44.12	43.67	17.43	32.45
Total	47.12	49.50	28.71	41.39

Cost of Cultivation for Arecanut (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	39,473.60	30,350.87	23,310.22	29,194.32
Cost B	60,093.34	41,936.76	43,220.38	45,825.92
Cost C	74,361.96	52,463.87	55,635.01	57,811.36

Cost of Production of Arecanut (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	795.82	763.37	263.46	476.23
Cost B	1,211.53	1,054.77	488.50	747.53
Cost C	1,499.20	1,319.55	628.82	943.04

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	1,07,605.05	61,867.47	1,11,390.24	90,399.56
By-product	385.64	0.00	0.00	71.57
Total	1,07,990.69	61,867.47	1,11,390.24	90,471.13

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	9,220.00	62,140.00	40.52	1,533.56
Manures	MT	231.50	2,98,950.00	40.52	7,377.84
Plant protection chemicals	L	0.00	0.00	0.00	0.00
Diesel (excluding irrigation)	₹	-	0.00	40.52	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	6,582.28	40.52	162.45
Other Expenses	₹	-	0.00	40.52	0.00
Irrigation Charges	₹	-	78,192.50	40.52	1,929.73
Incidental Charges	₹	-	1,69,750.00	40.52	4,189.29

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	2	30	28	60
Average Household size			0	10	5	5	5
Principle source of income	Cultivation		0	2	30	28	60
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	4	44	15	62
		Rainfed	0	2	5	12	19
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Plantation Crop: Cashewnut

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Anacardium occidentale***
Local Name: Kaju
Harvesting Period: February – May
Common Varieties (major) in the State: Vengurla, Vengurla4 and Vengurla7.

No.	Districts
1	Kolhapur
2	Ratnagiri
3	Raigad
4	Sindhudurg

Major findings of the Survey:

1. The working capital for Cashewnut ranges from ₹ 26,285.08 per ha. in Ratnagiri to ₹ 98,617.95 per ha. in Sindhudurg.
2. The price realization for Cashewnut ranges from ₹ 4,239.71 per quintal in Sindhudurg to ₹ 16,480.87 in Ratnagiri.
3. The productivity of Cashewnut ranges from 20.52 quintals per ha. in Kolhapur to 54.51 quintals per ha. in Sindhudurg.
4. The contribution of cultivating Cashewnut ranges from ₹ 2,10,271.02 per ha. in Sindhudurg to ₹ 3,37,550.77 per ha. in Raigad.
5. The expenditure under the head Manure is nearly double than that of fertilizer at 18.81% of the average working capital. Also, expenditure under head hired human labour and mechanical power together contributes 56.35% of total working capital.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	03	01	0	0	0	0	04
Talukas	06	02	0	0	0	0	08
Villages	10	05	0	0	0	0	15
Farmer/Holdings	60	20	0	0	0	0	80

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	29	5.72	36.08	0.55
Medium	(1.00 ha – 2.00 ha)	23	10.48	29.43	1.55
Large	(more than 2.00 ha)	28	27.58	29.53	3.34
Total –	All classes	80	43.78	30.22	1.81

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	43.11	52.92	30.50	38.76
Female	64.31	62.29	62.75	62.93
Total	51.09	58.28	47.97	51.00

Cost of Cultivation for Cashewnut (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	1,02,224.77	54,488.77	26,991.35	43,400.63
Cost B	1,78,254.34	1,12,034.00	82,172.55	1,01,871.41
Cost C	1,95,605.74	1,18,978.44	90,296.82	1,10,918.92

Cost of Production of Cashewnut (₹/Qtl.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	2,446.55	1,896.43	1,317.75	1,719.53
Cost B	4,266.17	3,899.23	4,011.77	4,036.14
Cost C	4,681.44	4,140.92	4,408.40	4,394.60

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	3,86,571.68	3,01,207.33	3,21,798.87	3,25,334.35
By-product	27,483.92	26,155.02	0.00	9,849.43
Total	4,14,055.59	3,27,362.35	3,21,798.87	3,35,183.78

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	16,550.00	1,30,500.00	41.38	3,153.70
Manures	MT	351.00	4,74,200.00	43.78	10,831.43
Plant protection chemicals	L	85.00	86,700.00	5.10	17,000.00
Diesel (excluding irrigation)	₹	-	0.00	43.78	0.00
Repair & Maintenance of Machinery & Equipments	₹	-	9,904.47	43.78	226.23
Other Expenses	₹	-	1,600.00	43.78	36.55
Irrigation Charges	₹	-	8,307.92	43.78	189.77
Incidental Charges	₹	-	1,82,960.00	43.78	4,179.08

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			1	2	48	29	80
Average Household size			4	10	5	5	5
Principle source of income	Cultivation		1	2	48	29	80
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	2	83	12	97
		Rainfed	0	0	34	13	48
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Season: Perennial Category: Plantation Crop: Coconut

Specimen Picture of Crop

General Profile of Crop

Scientific Name: ***Cocos nucifera***
Local Name: Naral
Harvesting Period: November to March
Common Varieties (major) in the State: Western tall, Banwali, Pratap, Ayiram Kaichi

No.	Districts
1	Sindhudurg
2	Thane
3	Ratnagiri
4	Raigad

Major findings of the Survey:

1. The working capital for Coconut ranges from ₹ 23,119.02 per ha. in Raigad to ₹ 74,398.03 per ha. in Thane.
2. The price realization for Coconut ranges from ₹ 15.84 per piece in Ratnagiri to ₹ 19.07 per piece in Thane.
3. The productivity of Coconut ranges from ₹ 8,342.50 pieces per ha. in Sindhudurg to ₹ 12,628.64 pieces per ha. in Ratnagiri.
4. The contribution of cultivating Coconut ranges from ₹ 1,03,324.64 per ha. in Sindhudurg to ₹ 1,80,304.56 per ha. in Raigad.
5. The cost composition under the head Manure is highest at 37.02 % along with hired human labour at 34.11% of the average working capital in case of Coconut.

Regional distribution:

Region	Konkan	Pune	Nashik	Aurangabad	Amravati	Nagpur	Total
Districts	04	00	00	00	00	00	04
Talukas	06	00	00	00	00	00	06
Villages	10	00	00	00	00	00	10
Farmer/Holdings	80	00	00	00	00	00	80

Area and Number of Holdings:

Holding Size Class		No. of Selected Holdings	Area under the crop in the sample (ha)	Percentage area to total area of selected sample	Average area per holding
Small	(Less than 1.00 ha)	56	20.13	61.67	0.58
Medium	(1.00 ha – 2.00 ha)	22	11.42	39.10	1.33
Large	(more than 2.00 ha)	02	2.50	48.08	2.60
Total –	All classes	80	34.04	50.78	0.84

Percentage of hired human labour to total human labour days:

Sex	Holding Size Class			
	Small	Medium	Large	All classes
Male	66.91	60.29	84.24	66.24
Female	72.62	73.93	96.58	74.93
Total	68.94	65.66	89.36	69.46

Cost of Cultivation for Coconut (₹/ha.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	62,862.85	42,955.88	49,319.02	55,192.85
Cost B	1,06,217.62	81,366.60	92,057.53	96,844.47
Cost C	1,16,116.76	89,885.35	95,157.53	1,05,781.43

Cost of Production of Coconut (₹/Piece.): 2018-19

Cost	Holding Size Class			
	Small	Medium	Large	All classes
Cost A	5.11	3.62	4.00	4.54
Cost B	8.64	6.86	7.47	7.97
Cost C	9.44	7.58	7.72	8.71

Gross Value of Output (₹/ha.):

Product/By-product	Holding Size Class			
	Small	Medium	Large	All classes
Product	2,17,843.80	2,05,032.41	2,35,080.00	2,14,813.48
By-product	890.70	912.75	2,220.00	995.71
Total	2,18,734.50	2,05,945.16	2,37,300.00	2,15,809.19

Inputs under consideration for valuation of Gross Value Added:

Input	Volume		Value (₹)	Total Area (in ha.)	Value per ha. (₹)
	Unit	Quantity			
Seed	Kg	0.00	0.00	0.00	0.00
Fertilizer	Kg	10,430.00	1,16,580.00	34.04	3,424.39
Manures	MT	436.00	6,18,600.00	34.04	18,170.60
Plant protection chemicals	L	20.00	32,890.00	9.40	3,498.94
Diesel (excluding irrigation)	₹	-	8.00	34.04	0.23
Repair & Maintenance of Machinery & Equipments	₹	-	15,580.49	34.04	457.66
Other Expenses	₹	-	0.00	34.04	0.00
Irrigation Charges	₹	-	31,663.57	34.04	930.08
Incidental Charges	₹	-	1,30,575.00	34.04	3,835.48

General Profile of Households under Survey:

Details /Category			SC	ST	OBC	Other	Total
Nos.			0	2	45	33	80
Average Household size			0	10	5	5	5
Principle source of income	Cultivation		0	2	45	33	80
	Livestock		0	0	0	0	0
	Other Agricultural Activities		0	0	0	0	0
	Other		0	0	0	0	0
Cultivated Area	Own land	Irrigated	0	3	26	14	42
		Rainfed	0	0	14	11	25
	Leased land	Irrigated	0	0	0	0	0
		Rainfed	0	0	0	0	0
Awareness of Minimum Support price (Yes)			0	0	0	0	0

Cost of Cultivation Tables
(Season wise Crop wise)

Volume I
Section C

Season: Kharif

Year: 2018-19

Cereals

Table.K1

Cost of Cultivation

District :- 20 Districts			Crop Name : Bajra		
Total Area (ha.)		**291.90**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	6594.98
2	Hired human labour (Days)	Male	4.87	267.22	1302.67
		Female	8.82	180.97	1596.57
3	Bullock Pair	Pair days	0.91	751.80	687.67
4	Mechanical Power	Hours	4.33	501.96	2172.75
5	Seed	Kg.	5.85	174.87	1023.51
6	Manure	Quintals	17.32	141.17	2444.67
7	Fertilizer	Kg.	185.66	15.28	2836.01
8	Irrigation Charges	₹	-	-	713.04
9	Plant Protection Charges	₹	0.36	1101.31	401.82
10	Incidental Charges	₹	-	-	1797.37
11	Repairs on Farm Implements	₹	-	-	52.07
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**21623.13**
15	Interest on Working Capital	₹	-	-	1297.39
16	Depreciation on Farm Implements	₹	-	-	1140.94
17	Land Revenue and Other Taxes	₹	-	-	14.72
18	**Cost A (14 to 17)**	**₹**			**24076.18**
19	Rental Value of Land				5553.51
20	Interest on Fixed Capital				3031.89
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**32661.58**
23	Family Human Labour Days	Male	5.93	284.45	1685.85
		Female	5.37	192.02	1030.83
24	**Cost C (22 to 23)**				**35378.27**
25	Output	Main Produce	17.60	1779.86	31331.99
		By-Produce	-	-	2077.39
26	Cost C (Net By-Produce)				33300.88
27	**Per Quintal Cost**				**1891.70**

Table.K2

Cost of Cultivation					
District :- 15 Districts			**Crop Name : Maize**		
Total Area (ha.)		**265.80**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	11205.61
2	Hired human labour (Days)	Male	4.47	222.37	994.73
		Female	12.13	179.32	2175.70
3	Bullock Pair	Pair days	0.39	650.00	254.33
4	Mechanical Power	Hours	4.03	858.15	3456.17
5	Seed	Kg.	24.68	111.43	2750.24
6	Manure	Quintals	26.66	143.20	3816.97
7	Fertilizer	Kg.	410.29	12.47	5116.80
8	Irrigation Charges	₹	-	-	1021.02
9	Plant Protection Charges	₹	1.04	1273.15	1327.99
10	Incidental Charges	₹	-	-	1680.44
11	Repairs on Farm Implements	₹	-	-	58.87
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**33858.87**
15	Interest on Working Capital	₹	-	-	2031.53
16	Depreciation on Farm Implements	₹	-	-	2128.16
17	Land Revenue and Other Taxes	₹	-	-	21.81
18	**Cost A (14 to 17)**	**₹**			**38040.37**
19	Rental Value of Land				10876.54
20	Interest on Fixed Capital				7066.35
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**55983.27**
23	Family Human Labour Days	Male	9.41	299.40	2817.16
		Female	6.40	195.44	1250.00
24	**Cost C (22 to 23)**				**60050.42**
25	Output	Main Produce	44.27	1369.51	60634.65
		By-Produce	-	-	4755.46
26	Cost C (Net By-Produce)				55294.97
27	**Per Quintal Cost**				**1248.91**

Table.K3

Cost of Cultivation					
District :- 16 Districts			**Crop Name : Paddy**		
Total Area (ha.)		**271.04**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	8049.85
2	Hired human labour (Days)	Male	12.30	248.13	3053.05
		Female	28.23	172.71	4876.03
3	Bullock Pair	Pair days	0.63	875.29	555.45
4	Mechanical Power	Hours	3.70	718.08	2653.34
5	Seed	Kg.	36.66	66.44	2435.82
6	Manure	Quintals	32.56	154.73	5037.82
7	Fertilizer	Kg.	375.72	14.95	5618.79
8	Irrigation Charges	₹	-	-	639.08
9	Plant Protection Charges	₹	1.66	949.60	1571.96
10	Incidental Charges	₹	-	-	2064.22
11	Repairs on Farm Implements	₹	-	-	76.16
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**36631.57**
15	Interest on Working Capital	₹	-	-	2197.89
16	Depreciation on Farm Implements	₹	-	-	432.34
17	Land Revenue and Other Taxes	₹	-	-	29.08
18	**Cost A (14 to 17)**	**₹**			**39290.87**
19	Rental Value of Land				12405.71
20	Interest on Fixed Capital				963.73
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**52660.32**
23	Family Human Labour Days	Male	10.90	288.76	3148.24
		Female	8.49	196.44	1667.65
24	**Cost C (22 to 23)**				**57476.22**
25	Output	Main Produce	34.89	2067.59	72129.95
		By-Produce	-	-	2478.79
26	Cost C (Net By-Produce)				54997.43
27	**Per Quintal Cost**				**1576.49**

Table.K4

Cost of Cultivation					
District :- 12 Districts			**Crop Name : Jowar**		
Total Area (ha.)		**212.50**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	5341.99
2	Hired human labour (Days)	Male	11.83	263.62	3118.82
		Female	18.24	172.99	3155.29
3	Bullock Pair	Pair days	3.36	743.56	2498.35
4	Mechanical Power	Hours	4.34	894.77	3879.29
5	Seed	Kg.	15.99	141.20	2258.21
6	Manure	Quintals	12.20	125.61	1532.47
7	Fertilizer	Kg.	193.94	16.83	3263.76
8	Irrigation Charges	₹	-	-	417.81
9	Plant Protection Charges	₹	0.48	972.23	464.61
10	Incidental Charges	₹	-	-	1903.04
11	Repairs on Farm Implements	₹	-	-	26.65
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**27860.31**
15	Interest on Working Capital	₹	-	-	1671.62
16	Depreciation on Farm Implements	₹	-	-	1419.57
17	Land Revenue and Other Taxes	₹	-	-	16.13
18	**Cost A (14 to 17)**	**₹**			**30967.63**
19	Rental Value of Land				9073.19
20	Interest on Fixed Capital				3289.46
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**43330.28**
23	Family Human Labour Days	Male	3.28	298.56	977.88
		Female	3.12	199.32	620.94
24	**Cost C (22 to 23)**				**44929.11**
25	Output	Main Produce	21.65	2216.95	48000.89
		By-Produce	-	-	6535.06
26	Cost C (Net By-Produce)				38394.05
27	**Per Quintal Cost**				**1773.25**

Table.K5

Cost of Cultivation					
District :- 06 Districts			**Crop Name : Ragi**		
Total Area (ha.)		**57.90**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	705.53
2	Hired human labour (Days)	Male	2.33	267.04	622.63
		Female	13.16	203.28	2675.30
3	Bullock Pair	Pair days	1.24	947.22	1177.89
4	Mechanical Power	Hours	2.75	747.49	2059.15
5	Seed	Kg.	9.71	72.39	702.76
6	Manure	Quintals	13.47	116.86	1574.27
7	Fertilizer	Kg.	147.24	13.05	1921.76
8	Irrigation Charges	₹	-	-	929.01
9	Plant Protection Charges	₹	0.35	1048.78	371.33
10	Incidental Charges	₹	-	-	1719.84
11	Repairs on Farm Implements	₹	-	-	49.29
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**14508.76**
15	Interest on Working Capital	₹	-	-	870.53
16	Depreciation on Farm Implements	₹	-	-	64.39
17	Land Revenue and Other Taxes	₹	-	-	12.88
18	**Cost A (14 to 17)**	**₹**			**15456.55**
19	Rental Value of Land				4531.59
20	Interest on Fixed Capital				128.78
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**20116.93**
23	Family Human Labour Days	Male	13.92	277.79	3867.01
		Female	16.68	206.31	3442.14
24	**Cost C (22 to 23)**				**27426.09**
25	Output	Main Produce	8.21	3320.89	27266.84
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				27426.09
27	**Per Quintal Cost**				**3340.28**

Pulses

Table.K6

Cost of Cultivation					
District :- 25 Districts			**Crop Name : Tur**		
Total Area (ha.)		**387.20**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	7506.71
2	Hired human labour (Days)	Male	7.72	240.37	1856.14
		Female	19.94	165.46	3299.31
3	Bullock Pair	Pair days	2.02	614.89	1243.43
4	Mechanical Power	Hours	4.26	890.09	3794.14
5	Seed	Kg.	15.74	132.60	2086.96
6	Manure	Quintals	19.45	135.54	2635.96
7	Fertilizer	Kg.	271.89	14.21	3864.58
8	Irrigation Charges	₹	-	-	589.14
9	Plant Protection Charges	₹	2.62	1348.67	3527.38
10	Incidental Charges	₹	-	-	2439.49
11	Repairs on Farm Implements	₹	-	-	70.77
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**32914.02**
15	Interest on Working Capital	₹	-	-	1974.84
16	Depreciation on Farm Implements	₹	-	-	1280.03
17	Land Revenue and Other Taxes	₹	-	-	21.76
18	**Cost A (14 to 17)**	**₹**			**36190.65**
19	Rental Value of Land				13988.45
20	Interest on Fixed Capital				3389.71
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**53568.81**
23	Family Human Labour Days	Male	5.09	281.18	1431.29
		Female	4.57	187.25	855.50
24	**Cost C (22 to 23)**				**55855.60**
25	Output	Main Produce	17.76	4696.51	83413.64
		By-Produce	-	-	647.61
26	Cost C (Net By-Produce)				55207.99
27	**Per Quintal Cost**				**3108.43**

Table.K7

Cost of Cultivation					
District :- 17 Districts			**Crop Name : Moong**		
Total Area (ha.)		**264.20**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	4545.48
2	Hired human labour (Days)	Male	4.66	246.02	1146.29
		Female	12.35	174.19	2150.64
3	Bullock Pair	Pair days	1.09	752.78	820.59
4	Mechanical Power	Hours	5.46	836.91	4567.87
5	Seed	Kg.	19.92	86.10	1715.48
6	Manure	Quintals	43.74	59.72	2612.23
7	Fertilizer	Kg.	250.84	11.27	2826.78
8	Irrigation Charges	₹	-	-	187.76
9	Plant Protection Charges	₹	1.35	1014.42	1374.15
10	Incidental Charges	₹	-	-	1928.24
11	Repairs on Farm Implements	₹	-	-	36.84
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**23912.35**
15	Interest on Working Capital	₹	-	-	1434.74
16	Depreciation on Farm Implements	₹	-	-	2319.00
17	Land Revenue and Other Taxes	₹	-	-	24.23
18	**Cost A (14 to 17)**	**₹**			**27690.31**
19	Rental Value of Land				9035.62
20	Interest on Fixed Capital				4283.60
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**41009.53**
23	Family Human Labour Days	Male	4.23	292.71	1238.64
		Female	6.72	198.79	1335.54
24	**Cost C (22 to 23)**				**43583.72**
25	Output	Main Produce	11.04	4891.62	54004.03
		By-Produce	-	-	355.03
26	Cost C (Net By-Produce)				43228.69
27	**Per Quintal Cost**				**3915.60**

Table.K8

Cost of Cultivation					
District :- 18 Districts			**Crop Name : Udid**		
Total Area (ha.)		**293.08**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	3220.21
2	Hired human labour (Days)	Male	6.78	239.40	1622.26
		Female	12.20	181.99	2220.57
3	Bullock Pair	Pair days	0.32	584.74	189.54
4	Mechanical Power	Hours	3.40	928.56	3158.78
5	Seed	Kg.	17.72	91.69	1624.55
6	Manure	Quintals	14.27	198.40	2830.54
7	Fertilizer	Kg.	145.03	15.39	2232.53
8	Irrigation Charges	₹	-	-	427.24
9	Plant Protection Charges	₹	0.43	1305.03	562.61
10	Incidental Charges	₹	-	-	2328.51
11	Repairs on Farm Implements	₹	-	-	34.47
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**20451.82**
15	Interest on Working Capital	₹	-	-	1227.11
16	Depreciation on Farm Implements	₹	-	-	2145.36
17	Land Revenue and Other Taxes	₹	-	-	20.78
18	**Cost A (14 to 17)**	**₹**			**23845.07**
19	Rental Value of Land				8916.30
20	Interest on Fixed Capital				2601.17
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**35362.54**
23	Family Human Labour Days	Male	5.34	291.35	1556.75
		Female	6.76	197.85	1337.36
24	**Cost C (22 to 23)**				**38256.65**
25	Output	Main Produce	11.47	4658.61	53421.49
		By-Produce	-	-	200.97
26	Cost C (Net By-Produce)				38055.68
27	**Per Quintal Cost**				**3318.64**

Oilseeds

Table.K9

Cost of Cultivation					
District :- 11 Districts			**Crop Name : Groundnut**		
Total Area (ha.)		**84.96**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	11507.42
2	Hired human labour (Days)	Male	4.34	243.90	1059.32
		Female	46.80	175.18	8197.98
3	Bullock Pair	Pair days	1.19	955.45	1135.83
4	Mechanical Power	Hours	2.03	750.14	1523.07
5	Seed	Kg.	98.91	106.37	10520.43
6	Manure	Quintals	51.73	135.36	7002.24
7	Fertilizer	Kg.	364.82	14.25	5197.98
8	Irrigation Charges	₹	-	-	1765.96
9	Plant Protection Charges	₹	4.10	363.11	1487.78
10	Incidental Charges	₹	-	-	2593.87
11	Repairs on Farm Implements	₹	-	-	96.66
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**52088.52**
15	Interest on Working Capital	₹	-	-	3125.31
16	Depreciation on Farm Implements	₹	-	-	1321.26
17	Land Revenue and Other Taxes	₹	-	-	39.45
18	**Cost A (14 to 17)**	**₹**			**56574.55**
19	Rental Value of Land				15583.79
20	Interest on Fixed Capital				2580.47
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**74738.80**
23	Family Human Labour Days	Male	12.54	286.48	3591.10
		Female	12.14	180.99	2196.33
24	**Cost C (22 to 23)**				**80526.23**
25	Output	Main Produce	21.70	4276.71	92823.21
		By-Produce	-	-	916.20
26	Cost C (Net By-Produce)				79610.04
27	**Per Quintal Cost**				**3667.93**

Table.K10

Cost of Cultivation					
District :- 26 Districts			**Crop Name : Soyabean**		
Total Area (ha.)		**609.60**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	6552.92
2	Hired human labour (Days)	Male	5.22	249.23	1300.94
		Female	15.10	167.63	2530.92
3	Bullock Pair	Pair days	1.78	753.48	1343.55
4	Mechanical Power	Hours	4.58	892.30	4089.73
5	Seed	Kg.	73.23	56.75	4155.79
6	Manure	Quintals	25.46	137.62	3503.61
7	Fertilizer	Kg.	201.21	16.78	3375.81
8	Irrigation Charges	₹	-	-	442.48
9	Plant Protection Charges	₹	2.66	774.48	2063.01
10	Incidental Charges	₹	-	-	1925.55
11	Repairs on Farm Implements	₹	-	-	45.72
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**31330.02**
15	Interest on Working Capital	₹	-	-	1879.80
16	Depreciation on Farm Implements	₹	-	-	1492.37
17	Land Revenue and Other Taxes	₹	-	-	18.38
18	**Cost A (14 to 17)**	**₹**			**34720.57**
19	Rental Value of Land				11362.31
20	Interest on Fixed Capital				3259.67
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**49342.55**
23	Family Human Labour Days	Male	4.46	293.88	1311.27
		Female	2.89	186.95	540.35
24	**Cost C (22 to 23)**				**51194.17**
25	Output	Main Produce	20.15	3353.95	67574.63
		By-Produce	-	-	709.51
26	Cost C (Net By-Produce)				50484.66
27	**Per Quintal Cost**				**2505.72**

Fibers

Table.K11

Cost of Cultivation					
District :- 22 Districts			**Crop Name : Cotton**		
Total Area (ha.)		**552.40**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	7377.91
2	Hired human labour (Days)	Male	6.99	238.19	1664.83
		Female	34.08	172.79	5889.39
3	Bullock Pair	Pair days	2.31	677.19	1566.71
4	Mechanical Power	Hours	1.85	831.77	1542.63
5	Seed	Kg.	5.25	933.30	4898.12
6	Manure	Quintals	38.02	92.94	3533.02
7	Fertilizer	Kg.	299.49	16.09	4818.09
8	Irrigation Charges	₹	-	-	736.06
9	Plant Protection Charges	₹	2.65	1521.90	4031.85
10	Incidental Charges	₹	-	-	2076.85
11	Repairs on Farm Implements	₹	-	-	47.67
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**38183.14**
15	Interest on Working Capital	₹	-	-	2290.99
16	Depreciation on Farm Implements	₹	-	-	1941.43
17	Land Revenue and Other Taxes	₹	-	-	30.64
18	**Cost A (14 to 17)**	**₹**			**42446.20**
19	Rental Value of Land				14684.52
20	Interest on Fixed Capital				4864.28
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**61995.00**
23	Family Human Labour Days	Male	6.87	294.84	2026.61
		Female	7.15	196.09	1402.52
24	**Cost C (22 to 23)**				**65424.12**
25	Output	Main Produce	18.51	4760.02	88097.45
		By-Produce	-	-	193.52
26	Cost C (Net By-Produce)				65230.60
27	**Per Quintal Cost**				**3524.50**

Condiments & Spices

Table.K12

Cost of Cultivation					
District :- 15 Districts			**Crop Name : Ginger**		
Total Area (ha.)		**117.26**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	382.47
2	Hired human labour (Days)	Male	31.16	301.15	9383.95
		Female	91.38	173.43	15848.85
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	28.02	702.62	19688.99
5	Seed	Kg.	1616.06	50.34	81356.77
6	Manure	Quintals	72.59	111.54	8096.86
7	Fertilizer	Kg.	416.16	17.62	7333.28
8	Irrigation Charges	₹	-	-	2097.61
9	Plant Protection Charges	₹	6.76	1424.71	9625.25
10	Incidental Charges	₹	-	-	3258.08
11	Repairs on Farm Implements	₹	-	-	83.00
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**157155.11**
15	Interest on Working Capital	₹	-	-	9429.31
16	Depreciation on Farm Implements	₹	-	-	480.00
17	Land Revenue and Other Taxes	₹	-	-	48.00
18	**Cost A (14 to 17)**	**₹**			**167112.42**
19	Rental Value of Land				70440.19
20	Interest on Fixed Capital				2400.01
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**239952.62**
23	Family Human Labour Days	Male	44.53	296.95	13223.58
		Female	38.65	178.23	6888.30
24	**Cost C (22 to 23)**				**260064.50**
25	Output	Main Produce	168.10	2515.95	422929.12
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				260064.50
27	**Per Quintal Cost**				**1547.09**

Table.K13

Cost of Cultivation					
District :- 17 Districts			**Crop Name : Turmeric**		
Total Area (ha.)		**246.79**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	26248.66
2	Hired human labour (Days)	Male	17.19	271.72	4670.53
		Female	49.48	169.03	8363.32
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	2.67	736.12	1965.62
5	Seed	Kg.	2935.18	29.95	87912.27
6	Manure	Quintals	208.72	47.89	9995.26
7	Fertilizer	Kg.	416.93	19.46	8115.17
8	Irrigation Charges	₹	-	-	1506.44
9	Plant Protection Charges	₹	3.08	1676.56	5157.08
10	Incidental Charges	₹	-	-	5725.59
11	Repairs on Farm Implements	₹	-	-	34.15
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**159694.10**
15	Interest on Working Capital	₹	-	-	9581.65
16	Depreciation on Farm Implements	₹	-	-	487.76
17	Land Revenue and Other Taxes	₹	-	-	48.78
18	**Cost A (14 to 17)**	**₹**			**169812.28**
19	Rental Value of Land				57127.09
20	Interest on Fixed Capital				2438.79
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**229378.15**
23	Family Human Labour Days	Male	16.46	281.85	4640.14
		Female	17.07	175.44	2994.10
24	**Cost C (22 to 23)**				**237012.39**
25	Output	Main Produce	59.88	5728.66	343011.12
		By-Produce	-	-	44.07
26	Cost C (Net By-Produce)				236968.33
27	**Per Quintal Cost**				**3957.63**

Table.K14

Cost of Cultivation					
District :- 04 Districts			**Crop Name : Red Chili**		
Total Area (ha.)		**57.90**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	9317.03
2	Hired human labour (Days)	Male	65.51	213.38	13979.76
		Female	145.26	152.65	22173.69
3	Bullock Pair	Pair days	0.93	478.18	443.51
4	Mechanical Power	Hours	4.67	864.26	4037.10
5	Seed	Kg.	10026.14	0.96	9576.73
6	Manure	Quintals	58.85	156.79	9227.66
7	Fertilizer	Kg.	542.16	12.64	6854.64
8	Irrigation Charges	₹	-	-	1387.55
9	Plant Protection Charges	₹	5.03	1105.13	5558.65
10	Incidental Charges	₹	-	-	6717.55
11	Repairs on Farm Implements	₹	-	-	55.40
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**89329.27**
15	Interest on Working Capital	₹	-	-	5359.76
16	Depreciation on Farm Implements	₹	-	-	272.84
17	Land Revenue and Other Taxes	₹	-	-	27.28
18	**Cost A (14 to 17)**	**₹**			**94989.15**
19	Rental Value of Land				25143.08
20	Interest on Fixed Capital				1364.20
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**121496.43**
23	Family Human Labour Days	Male	32.21	260.16	8379.43
		Female	20.24	175.42	3549.75
24	**Cost C (22 to 23)**				**133425.61**
25	Output	Main Produce	41.37	3650.88	151022.16
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				133425.61
27	**Per Quintal Cost**				**3225.49**

Table.K15

Cost of Cultivation					
District :- 01 District (Jalgaon)			**Crop Name : Coriander Seed**		
Total Area (ha.)		**34.80**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	385.06
2	Hired human labour (Days)	Male	4.17	300.00	1250.00
		Female	35.80	200.00	7160.92
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	6.87	700.00	4807.47
5	Seed	Kg.	22.87	75.00	1715.52
6	Manure	Quintals	6.90	156.25	1077.59
7	Fertilizer	Kg.	70.40	6.13	431.32
8	Irrigation Charges	₹	-	-	385.31
9	Plant Protection Charges	₹	2.27	1000.00	2270.11
10	Incidental Charges	₹	-	-	1585.06
11	Repairs on Farm Implements	₹	-	-	48.89
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**21117.24**
15	Interest on Working Capital	₹	-	-	1267.03
16	Depreciation on Farm Implements	₹	-	-	64.50
17	Land Revenue and Other Taxes	₹	-	-	6.45
18	**Cost A (14 to 17)**	**₹**			**22455.23**
19	Rental Value of Land				15730.62
20	Interest on Fixed Capital				322.49
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**38508.34**
23	Family Human Labour Days	Male	6.24	300.00	1870.69
		Female	11.06	200.00	2212.64
24	**Cost C (22 to 23)**				**42591.67**
25	Output	Main Produce	16.75	5638.13	94422.41
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				42591.67
27	**Per Quintal Cost**				**2543.22**

Table.K16

Cost of Cultivation

District :- 01 District (Nandurbar)			Crop Name : Ajwain		
Total Area (ha.)		**14.48**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	0.00
2	Hired human labour (Days)	Male	6.70	200.00	1339.78
		Female	10.98	150.00	1647.10
3	Bullock Pair	Pair days	1.93	660.71	1277.62
4	Mechanical Power	Hours	6.04	766.86	4633.98
5	Seed	Kg.	9.46	1476.64	13970.99
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	0.00	0.00	0.00
8	Irrigation Charges	₹	-	-	0.00
9	Plant Protection Charges	₹	0.00	0.00	0.00
10	Incidental Charges	₹	-	-	3902.42
11	Repairs on Farm Implements	₹	-	-	100.14
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**26872.03**
15	Interest on Working Capital	₹	-	-	1612.32
16	Depreciation On Farm Implements	₹	-	-	82.08
17	Land Revenue and Other Taxes	₹	-	-	8.21
18	**Cost A (14 to 17)**	**₹**			**28574.64**
19	Rental Value of Land				39837.27
20	Interest on Fixed Capital				410.38
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**68822.28**
23	Family Human Labour Days	Male	0.00	0.00	0.00
		Female	0.00	0.00	0.00
24	**Cost C (22 to 23)**				**68822.28**
25	Output	Main Produce	16.71	14304.86	239072.86
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				68822.28
27	**Per Quintal Cost**				**4117.96**

Vegetables

Table.K17

Cost of Cultivation

District :- 19 Districts			Crop Name : Beans		
Total Area (ha.)		**151.26**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	32640.82
2	Hired human labour (Days)	Male	9.20	286.81	2637.51
		Female	59.79	189.06	11304.05
3	Bullock Pair	Pair days	0.60	662.64	398.65
4	Mechanical Power	Hours	2.73	515.01	1406.19
5	Seed	Kg.	10.47	454.22	4756.61
6	Manure	Quintals	37.48	190.88	7154.93
7	Fertilizer	Kg.	661.18	19.98	13210.13
8	Irrigation Charges	₹	-	-	1806.09
9	Plant Protection Charges	₹	4.48	1806.23	8095.30
10	Incidental Charges	₹	-	-	11376.57
11	Repairs on Farm Implements	₹	-	-	48.00
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**94834.85**
15	Interest on Working Capital	₹	-	-	5690.09
16	Depreciation on Farm Implements	₹	-	-	249.59
17	Land Revenue and Other Taxes	₹	-	-	38.40
18	**Cost A (14 to 17)**	**₹**			**100812.93**
19	Rental Value of Land				48132.92
20	Interest on Fixed Capital				345.59
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**149291.44**
23	Family Human Labour Days	Male	68.24	276.41	18862.22
		Female	37.25	189.73	7066.97
24	**Cost C (22 to 23)**				**175220.63**
25	Output	Main Produce	134.11	2153.64	288821.64
		By-Produce	-	-	206.27
26	Cost C (Net By-Produce)				175014.36
27	**Per Quintal Cost**				**1305.02**

Table.K18

Cost of Cultivation

District :- 06 Districts			Crop Name : Cabbage		
Total Area (ha.)		**58.48**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	15974.69
2	Hired human labour (Days)	Male	15.10	300.00	4529.75
		Female	85.58	198.74	17009.23
3	Bullock Pair	Pair days	0.60	497.14	297.54
4	Mechanical Power	Hours	2.29	781.34	1790.36
5	Seed	Kg.	18216.63	0.79	14322.50
6	Manure	Quintals	17.13	175.49	3005.30
7	Fertilizer	Kg.	547.97	21.70	11890.46
8	Irrigation Charges	₹	-	-	2206.70
9	Plant Protection Charges	₹	8.16	1016.43	8289.67
10	Incidental Charges	₹	-	-	10791.21
11	Repairs on Farm Implements	₹	-	-	65.66
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**90173.07**
15	Interest on Working Capital	₹	-	-	5410.38
16	Depreciation on Farm Implements	₹	-	-	415.76
17	Land Revenue and Other Taxes	₹	-	-	25.95
18	**Cost A (14 to 17)**	**₹**			**96025.17**
19	Rental Value of Land				43927.68
20	Interest on Fixed Capital				980.27
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**140933.12**
23	Family Human Labour Days	Male	42.46	300.00	12737.69
		Female	19.10	196.69	3756.84
24	**Cost C (22 to 23)**				**157427.65**
25	Output	Main Produce	266.69	988.87	263721.79
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				157427.65
27	**Per Quintal Cost**				**590.30**

Table.K19

Cost of Cultivation					
District :- 17 Districts			**Crop Name : Cauliflower**		
Total Area (ha.)		**162.96**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	18047.37
2	Hired human labour (Days)	Male	25.07	244.49	6130.34
		Female	72.43	164.36	11904.76
3	Bullock Pair	Pair days	0.73	682.77	498.59
4	Mechanical Power	Hours	2.14	953.74	2036.70
5	Seed	Kg.	19819.42	0.98	19439.68
6	Manure	Quintals	40.46	102.18	4134.76
7	Fertilizer	Kg.	640.16	19.25	12319.98
8	Irrigation Charges	₹	-	-	1606.54
9	Plant Protection Charges	₹	3.71	2203.75	8169.29
10	Incidental Charges	₹	-	-	9340.08
11	Repairs on Farm Implements	₹	-	-	42.00
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**93670.09**
15	Interest on Working Capital	₹	-	-	5620.21
16	Depreciation on Farm Implements	₹	-	-	431.89
17	Land Revenue and Other Taxes	₹	-	-	26.96
18	**Cost A (14 to 17)**	**₹**			**99749.14**
19	Rental Value of Land				36326.08
20	Interest on Fixed Capital				1018.28
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**137093.49**
23	Family Human Labour Days	Male	28.93	298.36	8630.65
		Female	18.34	176.45	3236.38
24	**Cost C (22 to 23)**				**148960.52**
25	Output	Main Produce	226.35	962.72	217912.28
		By-Produce	-	-	205.93
26	Cost C (Net By-Produce)				148754.59
27	**Per Quintal Cost**				**657.19**

Table.K20

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Capsicum**		
Total Area (ha.)		**22.12**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	36882.91
2	Hired human labour (Days)	Male	61.21	262.92	16094.03
		Female	181.69	153.81	27945.30
3	Bullock Pair	Pair days	2.89	769.53	2226.49
4	Mechanical Power	Hours	0.81	658.33	535.71
5	Seed	Kg.	18693.94	1.52	28483.73
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	803.80	10.41	8363.92
8	Irrigation Charges	₹	-	-	3472.36
9	Plant Protection Charges	₹	11.73	608.25	7136.98
10	Incidental Charges	₹	-	-	6947.78
11	Repairs on Farm Implements	₹	-	-	41.32
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**138130.54**
15	Interest on Working Capital	₹	-	-	8287.83
16	Depreciation on Farm Implements	₹	-	-	636.88
17	Land Revenue and Other Taxes	₹	-	-	39.75
18	**Cost A (14 to 17)**	**₹**			**147095.01**
19	Rental Value of Land				60060.31
20	Interest on Fixed Capital				1501.61
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**208656.93**
23	Family Human Labour Days	Male	82.23	271.77	22348.55
		Female	42.09	161.92	6815.10
24	**Cost C (22 to 23)**				**237820.58**
25	Output	Main Produce	160.44	2247.53	360600.36
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				237820.58
27	**Per Quintal Cost**				**1482.27**

Table.K21

Cost of Cultivation

District :- 19 Districts			Crop Name : Brinjal		
Total Area (ha.)		**124.21**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	21461.90
2	Hired human labour (Days)	Male	8.13	281.34	2287.62
		Female	152.13	173.01	26319.12
3	Bullock Pair	Pair days	0.45	600.00	270.51
4	Mechanical Power	Hours	2.06	721.88	1487.78
5	Seed	Kg.	9139.52	1.00	9181.82
6	Manure	Quintals	205.40	35.76	7344.10
7	Fertilizer	Kg.	622.71	22.79	14188.46
8	Irrigation Charges	₹	-	-	1907.57
9	Plant Protection Charges	₹	9.46	1475.80	13965.18
10	Incidental Charges	₹	-	-	11787.86
11	Repairs on Farm Implements	₹	-	-	62.88
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**110264.78**
15	Interest on Working Capital	₹	-	-	6615.89
16	Depreciation on Farm Implements	₹	-	-	325.34
17	Land Revenue and Other Taxes	₹	-	-	27.11
18	**Cost A (14 to 17)**	**₹**			**117233.12**
19	Rental Value of Land				38683.96
20	Interest on Fixed Capital				433.78
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**156350.85**
23	Family Human Labour Days	Male	59.42	283.17	16826.88
		Female	82.57	165.64	13676.62
24	**Cost C (22 to 23)**				**186854.35**
25	Output	Main Produce	190.76	1217.57	232266.40
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				186854.35
27	**Per Quintal Cost**				**979.51**

Table.K22

Cost of Cultivation					
District :- 12 Districts			**Crop Name : Okra**		
Total Area (ha.)		**66.81**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	11123.27
2	Hired human labour (Days)	Male	12.11	296.29	3587.57
		Female	56.32	197.50	11123.42
3	Bullock Pair	Pair days	0.69	493.48	339.75
4	Mechanical Power	Hours	4.70	685.51	3221.63
5	Seed	Kg.	14.01	897.08	12564.58
6	Manure	Quintals	30.67	128.11	3928.82
7	Fertilizer	Kg.	514.86	15.79	8129.30
8	Irrigation Charges	₹	-	-	2055.50
9	Plant Protection Charges	₹	24.46	440.51	10772.74
10	Incidental Charges	₹	-	-	5462.70
11	Repairs on Farm Implements	₹	-	-	61.81
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**72371.09**
15	Interest on Working Capital	₹	-	-	4342.27
16	Depreciation on Farm Implements	₹	-	-	209.98
17	Land Revenue and Other Taxes	₹	-	-	17.50
18	**Cost A (14 to 17)**	**₹**			**76940.83**
19	Rental Value of Land				30818.06
20	Interest on Fixed Capital				279.97
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**108038.86**
23	Family Human Labour Days	Male	41.51	285.42	11848.19
		Female	29.63	204.77	6068.34
24	**Cost C (22 to 23)**				**125955.39**
25	Output	Main Produce	87.58	2112.53	185013.33
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				125955.39
27	**Per Quintal Cost**				**1438.19**

Table.K23

Cost of Cultivation					
District :- 15 Districts			**Crop Name : Onion**		
Total Area (ha.)		**263.50**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	17664.35
2	Hired human labour (Days)	Male	12.31	227.14	2795.45
		Female	44.52	178.21	7934.54
3	Bullock Pair	Pair days	0.00	1300.00	4.93
4	Mechanical Power	Hours	0.68	1164.04	786.34
5	Seed	Kg.	844.06	6.62	5584.63
6	Manure	Quintals	28.79	185.04	5326.38
7	Fertilizer	Kg.	554.99	17.07	9473.85
8	Irrigation Charges	₹	-	-	1874.69
9	Plant Protection Charges	₹	3.17	1315.04	4171.95
10	Incidental Charges	₹	-	-	6715.24
11	Repairs on Farm Implements	₹	-	-	85.32
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**62417.67**
15	Interest on Working Capital	₹	-	-	3745.06
16	Depreciation on Farm Implements	₹	-	-	1823.91
17	Land Revenue and Other Taxes	₹	-	-	25.31
18	**Cost A (14 to 17)**	**₹**			**68011.94**
19	Rental Value of Land				15221.52
20	Interest on Fixed Capital				6184.79
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**89418.25**
23	Family Human Labour Days	Male	16.41	296.16	4858.82
		Female	11.20	181.59	2033.02
24	**Cost C (22 to 23)**				**96310.09**
25	Output	Main Produce	182.05	502.51	91480.96
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				96310.09
27	**Per Quintal Cost**				**529.03**

Table.K24

Cost of Cultivation					
District :- 01 District (Sindhudurg)			**Crop Name : Ivy gourd**		
Total Area (ha.)		**5.80**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	13750.00
2	Hired human labour (Days)	Male	21.90	250.00	5474.14
		Female	104.14	200.00	20827.59
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	5.00	639.66	3198.28
5	Seed	Kg.	2.37	2213.38	5247.24
6	Manure	Quintals	105.17	111.31	11706.90
7	Fertilizer	Kg.	293.10	28.69	8410.34
8	Irrigation Charges	₹	-	-	3201.94
9	Plant Protection Charges	₹	6.62	1607.03	10639.66
10	Incidental Charges	₹	-	-	4346.55
11	Repairs on Farm Implements	₹	-	-	84.61
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**86887.24**
15	Interest on Working Capital	₹	-	-	5213.23
16	Depreciation on Farm Implements	₹	-	-	400.61
17	Land Revenue and Other Taxes	₹	-	-	25.01
18	**Cost A (14 to 17)**	**₹**			**92526.09**
19	Rental Value of Land				40968.67
20	Interest on Fixed Capital				944.55
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**134439.31**
23	Family Human Labour Days	Male	81.90	250.00	20474.14
		Female	69.66	200.00	13931.03
24	**Cost C (22 to 23)**				**168844.49**
25	Output	Main Produce	141.90	1733.39	245962.07
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				168844.49
27	**Per Quintal Cost**				**1189.91**

Table.K25

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Potato**		
Total Area (ha.)		**26.62**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	14023.29
2	Hired human labour (Days)	Male	33.51	300.00	10052.59
		Female	67.43	200.19	13499.25
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	13.86	787.40	10914.73
5	Seed	Kg.	2815.55	18.28	51465.06
6	Manure	Quintals	66.87	188.76	12622.09
7	Fertilizer	Kg.	764.46	10.43	7975.21
8	Irrigation Charges	₹	-	-	1734.64
9	Plant Protection Charges	₹	8.41	1001.70	8421.49
10	Incidental Charges	₹	-	-	17900.08
11	Repairs on Farm Implements	₹	-	-	22.38
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**148630.80**
15	Interest on Working Capital	₹	-	-	8917.85
16	Depreciation on Farm Implements	₹	-	-	685.29
17	Land Revenue and Other Taxes	₹	-	-	42.78
18	**Cost A (14 to 17)**	**₹**			**158276.72**
19	Rental Value of Land				49465.24
20	Interest on Fixed Capital				1615.76
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**209357.72**
23	Family Human Labour Days	Male	27.31	300.00	8193.09
		Female	13.04	200.00	2607.06
24	**Cost C (22 to 23)**				**220157.87**
25	Output	Main Produce	248.50	1195.38	297048.08
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				220157.87
27	**Per Quintal Cost**				**885.96**

Table.K26

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Sweet Potato**		
Total Area (ha.)		**27.32**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	11154.83
2	Hired human labour (Days)	Male	5.38	294.56	1584.92
		Female	49.01	160.04	7844.07
3	Bullock Pair	Pair days	1.39	986.84	1372.62
4	Mechanical Power	Hours	9.70	510.38	4950.59
5	Seed	Kg.	16732.43	0.65	10862.37
6	Manure	Quintals	38.80	179.96	6982.17
7	Fertilizer	Kg.	613.69	15.50	9514.64
8	Irrigation Charges	₹	-	-	4272.32
9	Plant Protection Charges	₹	0.56	895.74	500.00
10	Incidental Charges	₹	-	-	10192.06
11	Repairs on Farm Implements	₹	-	-	196.81
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**69427.40**
15	Interest on Working Capital	₹	-	-	4165.64
16	Depreciation on Farm Implements	₹	-	-	320.11
17	Land Revenue and Other Taxes	₹	-	-	19.98
18	**Cost A (14 to 17)**	**₹**			**73933.14**
19	Rental Value of Land				30368.62
20	Interest on Fixed Capital				754.74
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**105056.50**
23	Family Human Labour Days	Male	28.51	285.43	8138.73
		Female	24.05	158.98	3823.21
24	**Cost C (22 to 23)**				**117018.43**
25	Output	Main Produce	102.38	1780.94	182331.63
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				117018.43
27	**Per Quintal Cost**				**1142.99**

Table.K27

Cost of Cultivation					
District :- 02 Districts			**Crop Name : Pumpkin**		
Total Area (ha.)		**16.20**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	22101.85
2	Hired human labour (Days)	Male	24.07	298.97	7197.53
		Female	64.14	175.99	11287.04
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	21.42	742.51	15904.32
5	Seed	Kg.	2.84	1428.26	4055.56
6	Manure	Quintals	14.81	158.17	2343.21
7	Fertilizer	Kg.	722.22	9.87	7129.63
8	Irrigation Charges	₹	-	-	2353.53
9	Plant Protection Charges	₹	15.55	389.00	6048.77
10	Incidental Charges	₹	-	-	19993.83
11	Repairs on Farm Implements	₹	-	-	25.65
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**98440.90**
15	Interest on Working Capital	₹	-	-	5906.45
16	Depreciation on Farm Implements	₹	-	-	453.88
17	Land Revenue and Other Taxes	₹	-	-	28.33
18	**Cost A (14 to 17)**	**₹**			**104829.57**
19	Rental Value of Land				61916.63
20	Interest on Fixed Capital				1070.15
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**167816.35**
23	Family Human Labour Days	Male	38.58	304.88	11762.35
		Female	35.00	188.80	6608.02
24	**Cost C (22 to 23)**				**186186.72**
25	Output	Main Produce	530.25	700.94	371669.75
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				186186.72
27	**Per Quintal Cost**				**351.13**

Table.K28

Cost of Cultivation					
District :- 17 Districts			**Crop Name : Tomato**		
Total Area (ha.)		**137.79**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	18386.17
2	Hired human labour (Days)	Male	19.72	289.92	5716.67
		Female	122.13	185.21	22619.57
3	Bullock Pair	Pair days	0.92	544.09	501.49
4	Mechanical Power	Hours	5.98	782.02	4679.40
5	Seed	Kg.	16343.60	0.96	15681.15
6	Manure	Quintals	63.57	166.03	10554.47
7	Fertilizer	Kg.	701.14	18.62	13055.98
8	Irrigation Charges	₹	-	-	2606.18
9	Plant Protection Charges	₹	5.47	1674.32	9153.20
10	Incidental Charges	₹	-	-	19727.88
11	Repairs on Farm Implements	₹	-	-	51.61
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**122733.77**
15	Interest on Working Capital	₹	-	-	7364.03
16	Depreciation on Farm Implements	₹	-	-	371.85
17	Land Revenue and Other Taxes	₹	-	-	30.99
18	**Cost A (14 to 17)**	**₹**			**130500.64**
19	Rental Value of Land				46650.57
20	Interest on Fixed Capital				495.81
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**177647.01**
23	Family Human Labour Days	Male	51.15	295.21	15100.15
		Female	53.26	191.23	10185.43
24	**Cost C (22 to 23)**				**202932.59**
25	Output	Main Produce	268.26	1044.08	280089.34
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				202932.59
27	**Per Quintal Cost**				**756.47**

Table.K29

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Bitter gourd**		
Total Area (ha.)		**19.40**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	31479.38
2	Hired human labour (Days)	Male	19.64	230.45	4525.77
		Female	112.99	171.05	19327.32
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	2.68	663.46	1778.35
5	Seed	Kg.	2.92	1356.08	3953.61
6	Manure	Quintals	37.63	143.84	5412.37
7	Fertilizer	Kg.	626.55	20.22	12668.04
8	Irrigation Charges	₹	-	-	3129.76
9	Plant Protection Charges	₹	9.66	1198.72	11579.38
10	Incidental Charges	₹	-	-	7884.02
11	Repairs on Farm Implements	₹	-	-	97.35
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	**-**	**-**	**101835.36**
15	Interest on Working Capital	₹	-	-	6110.12
16	Depreciation on Farm Implements	₹	-	-	206.05
17	Land Revenue and Other Taxes	₹	-	-	25.76
18	**Cost A (14 to 17)**	**₹**			**108177.29**
19	Rental Value of Land				49446.24
20	Interest on Fixed Capital				309.07
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**157932.60**
23	Family Human Labour Days	Male	71.96	228.87	16469.07
		Female	52.58	170.20	8948.45
24	**Cost C (22 to 23)**				**183350.13**
25	Output	Main Produce	126.91	2338.97	296831.96
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				183350.13
27	**Per Quintal Cost**				**1444.76**

Table.K30

Cost of Cultivation					
District :- 02 Districts			**Crop Name : Bottle gourd**		
Total Area (ha.)		**12.70**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	12196.85
2	Hired human labour (Days)	Male	19.92	278.46	5547.24
		Female	94.49	176.08	16637.80
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	4.09	600.00	2456.69
5	Seed	Kg.	4.57	1001.62	4574.33
6	Manure	Quintals	44.09	110.89	4889.76
7	Fertilizer	Kg.	326.77	20.81	6801.57
8	Irrigation Charges	₹	-	-	3441.45
9	Plant Protection Charges	₹	7.91	690.54	5459.06
10	Incidental Charges	₹	-	-	4053.54
11	Repairs on Farm Implements	₹	-	-	34.44
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**66092.74**
15	Interest on Working Capital	₹	-	-	3965.56
16	Depreciation on Farm Implements	₹	-	-	304.73
17	Land Revenue and Other Taxes	₹	-	-	19.02
18	**Cost A (14 to 17)**	**₹**			**70382.06**
19	Rental Value of Land				17927.17
20	Interest on Fixed Capital				718.49
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**89027.72**
23	Family Human Labour Days	Male	56.93	271.85	15476.38
		Female	65.43	177.44	11610.24
24	**Cost C (22 to 23)**				**116114.34**
25	Output	Main Produce	86.85	1239.80	107677.17
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				116114.34
27	**Per Quintal Cost**				**1336.95**

Table.K31

Cost of Cultivation					
District :- 01 District (Akola)			**Crop Name : Pointed gourd**		
Total Area (ha.)		**6.10**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	12040.98
2	Hired human labour (Days)	Male	19.84	250.00	4959.02
		Female	95.57	150.00	14336.07
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	4.59	600.00	2754.10
5	Seed	Kg.	2.13	2168.92	4622.30
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	450.82	16.69	7524.59
8	Irrigation Charges	₹	-	-	2732.94
9	Plant Protection Charges	₹	6.30	1446.61	9106.56
10	Incidental Charges	₹	-	-	4034.43
11	Repairs on Farm Implements	₹	-	-	31.24
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**62142.21**
15	Interest on Working Capital	₹	-	-	3728.53
16	Depreciation on Farm Implements	₹	-	-	286.52
17	Land Revenue and Other Taxes	₹	-	-	17.88
18	**Cost A (14 to 17)**	**₹**			**66175.15**
19	Rental Value of Land				18036.76
20	Interest on Fixed Capital				675.54
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**84887.46**
23	Family Human Labour Days	Male	69.67	250.00	17418.03
		Female	62.95	150.00	9442.62
24	**Cost C (22 to 23)**				**111748.11**
25	Output	Main Produce	68.03	1592.29	108327.87
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				111748.11
27	**Per Quintal Cost**				**1642.56**

Table.K32

Cost of Cultivation					
District :- 04 Districts			**Crop Name : Ridge gourd**		
Total Area (ha.)		**25.94**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	28882.04
2	Hired human labour (Days)	Male	14.61	279.55	4084.43
		Female	73.94	209.31	15476.10
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	3.74	688.14	2573.25
5	Seed	Kg.	2.56	1516.48	3884.73
6	Manure	Quintals	30.45	135.44	4124.90
7	Fertilizer	Kg.	533.38	19.92	10626.83
8	Irrigation Charges	₹	-	-	2311.80
9	Plant Protection Charges	₹	9.18	1057.62	9707.79
10	Incidental Charges	₹	-	-	8711.26
11	Repairs on Farm Implements	₹	-	-	63.96
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**90447.08**
15	Interest on Working Capital	₹	-	-	5426.82
16	Depreciation on Farm Implements	₹	-	-	211.38
17	Land Revenue and Other Taxes	₹	-	-	26.42
18	**Cost A (14 to 17)**	**₹**			**96111.70**
19	Rental Value of Land				33045.80
20	Interest on Fixed Capital				317.07
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**129474.56**
23	Family Human Labour Days	Male	60.68	282.91	17166.54
		Female	49.42	204.99	10131.07
24	**Cost C (22 to 23)**				**156772.17**
25	Output	Main Produce	109.41	1813.73	198433.31
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				156772.17
27	**Per Quintal Cost**				**1432.94**

Table.K33

Cost of Cultivation					
District :- 01 District (Chandrapur)			**Crop Name : Sponge gourd**		
Total Area (ha.)		**6.00**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	31266.67
2	Hired human labour (Days)	Male	21.17	300.00	6350.00
		Female	138.83	200.00	27766.67
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	1.00	650.00	650.00
5	Seed	Kg.	2.73	920.73	2516.67
6	Manure	Quintals	21.67	201.54	4366.67
7	Fertilizer	Kg.	775.00	16.85	13056.67
8	Irrigation Charges	₹	-	-	4821.53
9	Plant Protection Charges	₹	7.81	1506.51	11763.33
10	Incidental Charges	₹	-	-	7983.33
11	Repairs on Farm Implements	₹	-	-	101.60
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**110643.13**
15	Interest on Working Capital	₹	-	-	6638.59
16	Depreciation on Farm Implements	₹	-	-	510.14
17	Land Revenue and Other Taxes	₹	-	-	31.84
18	**Cost A (14 to 17)**	**₹**			**117823.70**
19	Rental Value of Land				31065.38
20	Interest on Fixed Capital				1202.80
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**150091.87**
23	Family Human Labour Days	Male	87.83	300.00	26350.00
		Female	54.67	200.00	10933.33
24	**Cost C (22 to 23)**				**187375.21**
25	Output	Main Produce	110.50	1688.54	186583.33
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				187375.21
27	**Per Quintal Cost**				**1695.70**

Table.K34

Cost of Cultivation					
District :- 01 District (Pune)			**Crop Name : Peas**		
Total Area (ha.)		**24.00**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	27366.67
2	Hired human labour (Days)	Male	4.58	300.00	1375.00
		Female	73.33	200.00	14666.67
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.92	800.00	733.33
5	Seed	Kg.	47.83	149.48	7150.00
6	Manure	Quintals	7.50	233.33	1750.00
7	Fertilizer	Kg.	458.33	20.18	9250.00
8	Irrigation Charges	₹	-	-	0.00
9	Plant Protection Charges	₹	3.75	1166.67	4375.00
10	Incidental Charges	₹	-	-	2069.83
11	Repairs on Farm Implements	₹	-	-	8.37
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**68744.87**
15	Interest on Working Capital	₹	-	-	4124.69
16	Depreciation on Farm Implements	₹	-	-	316.96
17	Land Revenue and Other Taxes	₹	-	-	19.78
18	**Cost A (14 to 17)**	**₹**			**73206.31**
19	Rental Value of Land				18525.35
20	Interest on Fixed Capital				747.32
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**92478.99**
23	Family Human Labour Days	Male	3.17	300.00	950.00
		Female	5.00	200.00	1000.00
24	**Cost C (22 to 23)**				**94428.99**
25	Output	Main Produce	54.42	2044.79	111270.83
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				94428.99
27	**Per Quintal Cost**				**1735.30**

Table.K35

Cost of Cultivation					
District :- 16 Districts			**Crop Name : Green Chili**		
Total Area (ha.)		**161.62**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	27294.46
2	Hired human labour (Days)	Male	38.74	253.36	9816.30
		Female	103.65	203.77	21120.63
3	Bullock Pair	Pair days	1.26	1264.71	1596.30
4	Mechanical Power	Hours	2.36	951.18	2245.18
5	Seed	Kg.	9417.95	0.94	8874.10
6	Manure	Quintals	42.97	142.93	6141.72
7	Fertilizer	Kg.	529.92	21.47	11376.49
8	Irrigation Charges	₹	-	-	2992.57
9	Plant Protection Charges	₹	8.63	1191.64	10289.68
10	Incidental Charges	₹	-	-	4923.95
11	Repairs on Farm Implements	₹	-	-	42.52
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**106713.90**
15	Interest on Working Capital	₹	-	-	6402.83
16	Depreciation on Farm Implements	₹	-	-	340.68
17	Land Revenue and Other Taxes	₹	-	-	28.39
18	**Cost A (14 to 17)**	**₹**			**113485.81**
19	Rental Value of Land				39644.75
20	Interest on Fixed Capital				454.24
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**153584.80**
23	Family Human Labour Days	Male	50.49	301.07	15201.95
		Female	21.83	207.57	4530.89
24	**Cost C (22 to 23)**				**173317.64**
25	Output	Main Produce	191.01	1246.18	238025.85
		By-Produce	-	-	12.99
26	Cost C (Net By-Produce)				173304.64
27	**Per Quintal Cost**				**907.33**

Table.K36

Cost of Cultivation					
District :- 08 Districts			**Crop Name : Coriander**		
Total Area (ha.)		**63.16**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	3789.48
2	Hired human labour (Days)	Male	7.35	294.07	2160.32
		Female	42.83	194.57	8332.54
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	2.91	697.77	2029.94
5	Seed	Kg.	26.30	138.43	3641.19
6	Manure	Quintals	22.80	140.90	3212.37
7	Fertilizer	Kg.	168.22	8.11	1363.64
8	Irrigation Charges	₹	-	-	2436.24
9	Plant Protection Charges	₹	1.88	1003.62	1887.29
10	Incidental Charges	₹	-	-	1953.23
11	Repairs on Farm Implements	₹	-	-	61.55
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**30867.80**
15	Interest on Working Capital	₹	-	-	1852.07
16	Depreciation on Farm Implements	₹	-	-	142.32
17	Land Revenue and Other Taxes	₹	-	-	8.88
18	**Cost A (14 to 17)**	**₹**			**32871.07**
19	Rental Value of Land				14474.48
20	Interest on Fixed Capital				335.56
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**47681.12**
23	Family Human Labour Days	Male	23.42	293.07	6862.51
		Female	19.20	190.56	3659.64
24	**Cost C (22 to 23)**				**58203.26**
25	Output	Main Produce	43.52	1996.79	86900.19
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				58203.26
27	**Per Quintal Cost**				**1337.40**

Table.K37

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Fenugreek**		
Total Area (ha.)		**9.86**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	3935.09
2	Hired human labour (Days)	Male	19.37	200.00	3874.24
		Female	40.87	156.08	6379.31
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	6.80	673.13	4574.04
5	Seed	Kg.	27.84	70.64	1966.53
6	Manure	Quintals	7.71	132.24	1019.27
7	Fertilizer	Kg.	456.39	12.95	5908.72
8	Irrigation Charges	₹	-	-	1961.21
9	Plant Protection Charges	₹	0.00	0.00	0.00
10	Incidental Charges	₹	-	-	4331.14
11	Repairs on Farm Implements	₹	-	-	87.22
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**34036.76**
15	Interest on Working Capital	₹	-	-	2042.21
16	Depreciation on Farm Implements	₹	-	-	156.93
17	Land Revenue and Other Taxes	₹	-	-	9.80
18	**Cost A (14 to 17)**	**₹**			**36245.70**
19	Rental Value of Land				17576.58
20	Interest on Fixed Capital				370.01
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**54192.29**
23	Family Human Labour Days	Male	9.63	292.63	2819.47
		Female	27.59	174.45	4812.37
24	**Cost C (22 to 23)**				**61824.14**
25	Output	Main Produce	65.32	1615.29	105518.26
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				61824.14
27	**Per Quintal Cost**				**946.42**

Table.K38

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Leafy Veg. (Spinach)**		
Total Area (ha.)		**18.80**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	7406.38
2	Hired human labour (Days)	Male	9.63	275.14	2648.94
		Female	31.38	186.10	5840.43
3	Bullock Pair	Pair days	0.27	1000.00	265.96
4	Mechanical Power	Hours	1.01	615.79	622.34
5	Seed	Kg.	17.83	380.07	6777.66
6	Manure	Quintals	17.02	130.00	2212.77
7	Fertilizer	Kg.	276.06	15.28	4219.47
8	Irrigation Charges	₹	-	-	1932.66
9	Plant Protection Charges	₹	3.88	965.69	3742.29
10	Incidental Charges	₹	-	-	3090.43
11	Repairs on Farm Implements	₹	-	-	74.97
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**38834.28**
15	Interest on Working Capital	₹	-	-	2330.06
16	Depreciation on Farm Implements	₹	-	-	179.05
17	Land Revenue and Other Taxes	₹	-	-	11.18
18	**Cost A (14 to 17)**	**₹**			**41354.57**
19	Rental Value of Land				12179.43
20	Interest on Fixed Capital				422.17
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**53956.16**
23	Family Human Labour Days	Male	37.29	283.31	10563.83
		Female	32.23	175.83	5667.55
24	**Cost C (22 to 23)**				**70187.54**
25	Output	Main Produce	39.30	1861.39	73143.62
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				70187.54
27	**Per Quintal Cost**				**1786.16**

Table.K39

Cost of Cultivation					
District :- 07 Districts			**Crop Name : Other Veg. (Cluster bean)**		
Total Area (ha.)		**28.10**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	4378.65
2	Hired human labour (Days)	Male	5.09	309.09	1572.95
		Female	18.54	199.90	3706.41
3	Bullock Pair	Pair days	0.18	740.00	131.67
4	Mechanical Power	Hours	4.66	697.33	3250.89
5	Seed	Kg.	9.35	305.41	2855.16
6	Manure	Quintals	23.67	152.03	3597.86
7	Fertilizer	Kg.	335.73	18.64	6256.58
8	Irrigation Charges	₹	-	-	1747.30
9	Plant Protection Charges	₹	3.78	992.75	3752.14
10	Incidental Charges	₹	-	-	4676.51
11	Repairs on Farm Implements	₹	-	-	40.56
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**	-	-	**35966.68**
15	Interest on Working Capital	₹	-	-	2158.00
16	Depreciation on Farm Implements	₹	-	-	165.83
17	Land Revenue and Other Taxes	₹	-	-	10.35
18	**Cost A (14 to 17)**	**₹**			**38300.86**
19	Rental Value of Land				12808.33
20	Interest on Fixed Capital				390.99
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**51500.19**
23	Family Human Labour Days	Male	43.52	291.58	12690.39
		Female	38.90	199.59	7763.35
24	**Cost C (22 to 23)**				**71953.92**
25	Output	Main Produce	36.46	2109.55	76912.10
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				71953.92
27	**Per Quintal Cost**				**1973.55**

Cost of Cultivation Tables (Crop wise)

Volume I

Section C

Season: Rabi

Year: 2018-19

Cereals

Table.R1

Cost of Cultivation					
District :- 13 Districts			**Crop Name : Maize**		
Total Area (ha.)		**181.88**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	7030.73
2	Hired human labour (Days)	Male	6.03	233.59	1408.90
		Female	17.67	185.15	3270.84
3	Bullock Pair	Pair days	0.23	624.39	140.75
4	Mechanical Power	Hours	4.51	864.72	3900.92
5	Seed	Kg.	24.03	59.97	1440.98
6	Manure	Quintals	3.63	171.06	620.74
7	Fertilizer	Kg.	270.66	9.04	2448.04
8	Irrigation Charges	₹	-	-	635.09
9	Plant Protection Charges	₹	0.47	1040.31	486.75
10	Incidental Charges	₹	-	-	1581.40
11	Repairs on Farm Implements	₹	-	-	38.76
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**23003.90**
15	Interest on Working Capital	₹	-	-	1380.23
16	Depreciation on Farm Implements	₹	-	-	1445.88
17	Land Revenue and Other Taxes	₹	-	-	14.82
18	**Cost A (14 to 17)**	**₹**			**25844.84**
19	Rental Value of Land				10386.35
20	Interest on Fixed Capital				4800.92
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**41032.11**
23	Family Human Labour Days	Male	11.93	299.93	3578.46
		Female	7.20	195.57	1408.62
24	**Cost C (22 to 23)**				**46019.18**
25	Output	Main Produce	41.19	1423.67	58635.83
		By-Produce	-	-	3771.17
26	Cost C (Net By-Produce)				42248.02
27	**Per Quintal Cost**				**1025.77**

Table.R2

Cost of Cultivation					
District :- 16 Districts			**Crop Name : Jowar**		
Total Area (ha.)		**249.60**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	3929.29
2	Hired human labour (Days)	Male	9.57	278.55	2666.07
		Female	14.58	185.15	2700.12
3	Bullock Pair	Pair days	3.68	923.42	3396.23
4	Mechanical Power	Hours	4.22	746.11	3147.64
5	Seed	Kg.	13.91	156.71	2180.44
6	Manure	Quintals	3.08	248.31	766.03
7	Fertilizer	Kg.	219.00	14.77	3235.40
8	Irrigation Charges	₹	-	-	355.03
9	Plant Protection Charges	₹	0.12	1025.72	127.80
10	Incidental Charges	₹	-	-	1769.19
11	Repairs on Farm Implements	₹	-	-	22.77
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**24296.00**
15	Interest on Working Capital	₹	-	-	1457.76
16	Depreciation on Farm Implements	₹	-	-	1237.96
17	Land Revenue and Other Taxes	₹	-	-	14.07
18	**Cost A (14 to 17)**	**₹**			**27005.79**
19	Rental Value of Land				10202.72
20	Interest on Fixed Capital				2868.62
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**40077.13**
23	Family Human Labour Days	Male	4.53	280.90	1272.84
		Female	3.73	183.19	683.29
24	**Cost C (22 to 23)**				**42033.26**
25	Output	Main Produce	21.35	2434.03	51976.63
		By-Produce	-	-	9324.12
26	Cost C (Net By-Produce)				32709.15
27	**Per Quintal Cost**				**1531.75**

Table.R3

Cost of Cultivation					
District :- 27 Districts			**Crop Name : Wheat**		
Total Area (ha.)		**430.40**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	2986.52
2	Hired human labour (Days)	Male	0.99	243.09	241.17
		Female	8.21	172.03	1412.52
3	Bullock Pair	Pair days	0.12	700.00	81.32
4	Mechanical Power	Hours	8.12	759.23	6166.96
5	Seed	Kg.	87.51	46.52	4071.28
6	Manure	Quintals	3.21	163.44	524.05
7	Fertilizer	Kg.	274.17	15.35	4207.36
8	Irrigation Charges	₹	-	-	2061.62
9	Plant Protection Charges	₹	1.60	1073.29	1717.37
10	Incidental Charges	₹	-	-	943.50
11	Repairs on Farm Implements	₹	-	-	40.59
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**24454.26**
15	Interest on Working Capital	₹	-	-	1467.26
16	Depreciation on Farm Implements	₹	-	-	666.08
17	Land Revenue and Other Taxes	₹	-	-	18.20
18	**Cost A (14 to 17)**	**₹**			**26605.80**
19	Rental Value of Land				10780.00
20	Interest on Fixed Capital				1827.35
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**39213.15**
23	Family Human Labour Days	Male	12.34	284.75	3514.41
		Female	7.27	178.56	1297.75
24	**Cost C (22 to 23)**				**44025.30**
25	Output	Main Produce	29.92	2093.97	62658.68
		By-Produce	-	-	2130.53
26	Cost C (Net By-Produce)				41894.77
27	**Per Quintal Cost**				**1400.07**

Pulses

Table.R4

Cost of Cultivation					
District :- 30 Districts			**Crop Name : Gram**		
Total Area (ha.)		**445.27**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	7422.03
2	Hired human labour (Days)	Male	2.23	245.32	547.08
		Female	10.03	180.30	1808.78
3	Bullock Pair	Pair days	0.27	857.38	234.91
4	Mechanical Power	Hours	5.48	725.05	3971.51
5	Seed	Kg.	72.64	79.35	5764.35
6	Manure	Quintals	5.59	165.98	928.20
7	Fertilizer	Kg.	184.84	21.94	4056.03
8	Irrigation Charges	₹	-	-	1560.25
9	Plant Protection Charges	₹	1.97	1222.63	2410.02
10	Incidental Charges	₹	-	-	1773.62
11	Repairs on Farm Implements	₹	-	-	44.22
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**30521.00**
15	Interest on Working Capital	₹	-	-	1831.26
16	Depreciation on Farm Implements	₹	-	-	2030.94
17	Land Revenue and Other Taxes	₹	-	-	28.15
18	**Cost A (14 to 17)**	**₹**			**34411.35**
19	Rental Value of Land				11319.38
20	Interest on Fixed Capital				3716.76
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**49447.49**
23	Family Human Labour Days	Male	11.09	279.59	3101.81
		Female	8.59	188.58	1620.81
24	**Cost C (22 to 23)**				**54170.11**
25	Output	Main Produce	15.61	4357.32	68010.92
		By-Produce	-	-	74.25
26	Cost C (Net By-Produce)				54095.86
27	**Per Quintal Cost**				**3465.81**

Table.R5

Cost of Cultivation					
District :- 01 District (Sindhudurg)			**Crop Name : Horse gram (Kulith)**		
Total Area (ha.)		**6.21**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	0.00
2	Hired human labour (Days)	Male	0.00	0.00	0.00
		Female	9.83	200.00	1965.21
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	17.40	608.80	10591.17
5	Seed	Kg.	14.98	68.82	1030.93
6	Manure	Quintals	35.44	106.82	3785.44
7	Fertilizer	Kg.	257.73	24.91	6420.75
8	Irrigation Charges	₹	-	-	0.00
9	Plant Protection Charges	₹	0.00	0.00	0.00
10	Incidental Charges	₹	-	-	1912.05
11	Repairs on Farm Implements	₹	-	-	156.16
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**25861.70**
15	Interest on Working Capital	₹	-	-	1551.70
16	Depreciation on Farm Implements	₹	-	-	256.43
17	Land Revenue and Other Taxes	₹	-	-	51.29
18	**Cost A (14 to 17)**	**₹**			**27721.12**
19	Rental Value of Land				12297.16
20	Interest on Fixed Capital				307.72
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**40326.01**
23	Family Human Labour Days	Male	11.92	250.00	2980.03
		Female	28.19	200.00	5637.89
24	**Cost C (22 to 23)**				**48943.92**
25	Output	Main Produce	14.90	4972.49	74090.69
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				48943.92
27	**Per Quintal Cost**				**3284.80**

Condiments & Spices

Table.R6

Cost of Cultivation					
District :- 16 Districts			**Crop Name : Garlic**		
Total Area (ha.)		**70.52**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	982.42
2	Hired human labour (Days)	Male	34.73	209.31	7268.86
		Female	95.90	173.80	16667.61
3	Bullock Pair	Pair days	1.80	581.50	1047.22
4	Mechanical Power	Hours	3.80	957.46	3638.68
5	Seed	Kg.	562.49	52.17	29344.44
6	Manure	Quintals	19.29	220.92	4261.06
7	Fertilizer	Kg.	232.71	16.03	3730.86
8	Irrigation Charges	₹	-	-	1535.46
9	Plant Protection Charges	₹	1.25	1309.67	1639.96
10	Incidental Charges	₹	-	-	5571.50
11	Repairs on Farm Implements	₹	-	-	46.38
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**75734.44**
15	Interest on Working Capital	₹	-	-	4544.07
16	Depreciation on Farm Implements	₹	-	-	231.32
17	Land Revenue and Other Taxes	₹	-	-	23.13
18	**Cost A (14 to 17)**	**₹**			**80532.96**
19	Rental Value of Land				57794.01
20	Interest on Fixed Capital				1156.59
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**139483.56**
23	Family Human Labour Days	Male	34.71	294.96	10238.94
		Female	31.06	188.84	5864.29
24	**Cost C (22 to 23)**				**155586.79**
25	Output	Main Produce	99.63	3481.82	346902.86
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				155586.79
27	**Per Quintal Cost**				**1561.60**

Vegetables

Table.R7

Cost of Cultivation					
District :- 02 Districts			**Crop Name : Beans**		
Total Area (ha.)		**15.42**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	39121.27
2	Hired human labour (Days)	Male	24.38	216.49	5278.86
		Female	49.16	178.76	8787.29
3	Bullock Pair	Pair days	1.30	600.00	778.21
4	Mechanical Power	Hours	1.49	600.00	894.94
5	Seed	Kg.	48.90	90.23	4412.13
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	690.66	19.45	13433.85
8	Irrigation Charges	₹	-	-	2064.75
9	Plant Protection Charges	₹	232.53	25.38	5901.43
10	Incidental Charges	₹	-	-	13687.42
11	Repairs on Farm Implements	₹	-	-	15.51
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**94375.65**
15	Interest on Working Capital	₹	-	-	5662.54
16	Depreciation on Farm Implements	₹	-	-	248.38
17	Land Revenue and Other Taxes	₹	-	-	38.21
18	**Cost A (14 to 17)**	**₹**			**100324.79**
19	Rental Value of Land				57231.03
20	Interest on Fixed Capital				343.92
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**157899.73**
23	Family Human Labour Days	Male	92.61	300.00	27782.10
		Female	26.33	200.00	5265.89
24	**Cost C (22 to 23)**				**190947.72**
25	Output	Main Produce	197.34	1741.23	343615.43
		By-Produce			0.00
26	Cost C (Net By-Produce)				190947.72
27	**Per Quintal Cost**				**967.60**

Table.R8

Cost of Cultivation					
District :- 01 District (Dhule)			**Crop Name : Cauliflower**		
Total Area (ha.)		**11.00**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	32090.91
2	Hired human labour (Days)	Male	6.55	300.00	1963.64
		Female	37.09	200.00	7418.18
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	16409.09	1.12	18409.09
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	859.09	22.06	18947.27
8	Irrigation Charges	₹	-	-	1851.96
9	Plant Protection Charges	₹	1.89	4848.56	9168.18
10	Incidental Charges	₹	-	-	10709.09
11	Repairs on Farm Implements	₹	-	-	29.03
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**100587.35**
15	Interest on Working Capital	₹	-	-	6035.24
16	Depreciation on Farm Implements	₹	-	-	463.78
17	Land Revenue and Other Taxes	₹	-	-	28.95
18	**Cost A (14 to 17)**	**₹**			**107115.32**
19	Rental Value of Land				43418.02
20	Interest on Fixed Capital				1093.48
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**151626.82**
23	Family Human Labour Days	Male	32.18	300.00	9654.55
		Female	10.55	200.00	2109.09
24	**Cost C (22 to 23)**				**163390.46**
25	Output	Main Produce	225.45	1156.25	260681.82
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				163390.46
27	**Per Quintal Cost**				**724.72**

Table.R9

Cost of Cultivation					
District :- 02 Districts			**Crop Name : Capsicum**		
Total Area (ha.)		**18.10**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	30190.61
2	Hired human labour (Days)	Male	64.20	300.00	19259.67
		Female	38.78	200.00	7756.91
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	11476.80	1.91	21933.43
6	Manure	Quintals	28.73	155.38	4464.09
7	Fertilizer	Kg.	1066.57	15.71	16757.18
8	Irrigation Charges	₹	-	-	6035.02
9	Plant Protection Charges	₹	13.80	759.64	10480.66
10	Incidental Charges	₹	-	-	9284.31
11	Repairs on Farm Implements	₹	-	-	88.76
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**126250.63**
15	Interest on Working Capital	₹	-	-	7575.04
16	Depreciation on Farm Implements	₹	-	-	582.11
17	Land Revenue and Other Taxes	₹	-	-	36.33
18	**Cost A (14 to 17)**	**₹**			**134444.11**
19	Rental Value of Land				63484.29
20	Interest on Fixed Capital				1372.46
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**199300.87**
23	Family Human Labour Days	Male	64.97	300.00	19491.71
		Female	23.15	200.00	4629.83
24	**Cost C (22 to 23)**				**223422.42**
25	Output	Main Produce	167.96	2269.19	381123.76
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				223422.42
27	**Per Quintal Cost**				**1330.25**

Table.R10

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Brinjal**		
Total Area (ha.)		**23.28**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	37530.07
2	Hired human labour (Days)	Male	33.63	255.56	8595.36
		Female	76.37	155.96	11911.51
3	Bullock Pair	Pair days	0.90	628.57	567.01
4	Mechanical Power	Hours	1.68	733.33	1228.52
5	Seed	Kg.	10023.63	1.06	10586.77
6	Manure	Quintals	48.54	149.56	7259.45
7	Fertilizer	Kg.	577.32	18.69	10788.23
8	Irrigation Charges	₹	-	-	2728.90
9	Plant Protection Charges	₹	23.44	570.45	13369.07
10	Incidental Charges	₹	-	-	12156.36
11	Repairs on Farm Implements	₹	-	-	92.97
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**116814.22**
15	Interest on Working Capital	₹	-	-	7008.85
16	Depreciation on Farm Implements	₹	-	-	344.66
17	Land Revenue and Other Taxes	₹	-	-	28.72
18	**Cost A (14 to 17)**	**₹**			**124196.46**
19	Rental Value of Land				44174.44
20	Interest on Fixed Capital				459.55
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**168830.45**
23	Family Human Labour Days	Male	20.02	300.00	6005.15
		Female	10.27	189.12	1941.58
24	**Cost C (22 to 23)**				**176777.18**
25	Output	Main Produce	168.69	1572.27	265218.99
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				176777.18
27	**Per Quintal Cost**				**1047.97**

Table.R11

Cost of Cultivation					
District :- 20 Districts			**Crop Name : Cucumber**		
Total Area (ha.)		**151.71**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	7100.98
2	Hired human labour (Days)	Male	20.01	248.45	4970.40
		Female	71.53	183.68	13137.74
3	Bullock Pair	Pair days	0.35	603.77	210.93
4	Mechanical Power	Hours	2.58	690.28	1779.08
5	Seed	Kg.	9.91	306.64	3039.15
6	Manure	Quintals	35.88	100.12	3592.43
7	Fertilizer	Kg.	392.37	20.86	8184.14
8	Irrigation Charges	₹	-	-	2694.34
9	Plant Protection Charges	₹	195.08	26.37	5144.37
10	Incidental Charges	₹	-	-	4793.22
11	Repairs on Farm Implements	₹	-	-	29.03
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**54675.81**
15	Interest on Working Capital	₹	-	-	3280.55
16	Depreciation on Farm Implements	₹	-	-	131.59
17	Land Revenue and Other Taxes	₹	-	-	16.45
18	**Cost A (14 to 17)**	**₹**			**58104.40**
19	Rental Value of Land				28622.89
20	Interest on Fixed Capital				197.39
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**86924.68**
23	Family Human Labour Days	Male	41.16	283.46	11666.49
		Female	40.53	188.85	7654.51
24	**Cost C (22 to 23)**				**106245.68**
25	Output	Main Produce	126.41	1359.38	171836.05
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				106245.68
27	**Per Quintal Cost**				**840.50**

Table.R12

Cost of Cultivation					
District :- 01 District (Beed)			**Crop Name : Pumpkin**		
Total Area (ha.)		**9.20**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	18809.78
2	Hired human labour (Days)	Male	19.02	300.00	5706.52
		Female	36.52	200.00	7304.35
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	11.52	716.04	8250.00
5	Seed	Kg.	2.93	1337.04	3923.91
6	Manure	Quintals	33.70	159.03	5358.70
7	Fertilizer	Kg.	1173.91	8.99	10547.83
8	Irrigation Charges	₹	-	-	2263.51
9	Plant Protection Charges	₹	11.97	972.75	11641.30
10	Incidental Charges	₹	-	-	14244.57
11	Repairs on Farm Implements	₹	-	-	43.15
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**88093.62**
15	Interest on Working Capital	₹	-	-	5285.62
16	Depreciation on Farm Implements	₹	-	-	406.17
17	Land Revenue and Other Taxes	₹	-	-	25.35
18	**Cost A (14 to 17)**	**₹**			**93810.76**
19	Rental Value of Land				44495.24
20	Interest on Fixed Capital				957.66
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**139263.67**
23	Family Human Labour Days	Male	30.54	300.00	9163.04
		Female	18.48	200.00	3695.65
24	**Cost C (22 to 23)**				**152122.36**
25	Output	Main Produce	400.00	667.81	267123.59
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				152122.36
27	**Per Quintal Cost**				**380.31**

Table.R13

Cost of Cultivation					
District :- 02 Districts			**Crop Name : Bitter gourd**		
Total Area (ha.)		**12.43**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	33290.43
2	Hired human labour (Days)	Male	18.66	267.89	5000.00
		Female	102.09	200.00	20418.34
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	2.09	700.00	1464.20
5	Seed	Kg.	3.03	1599.84	4847.14
6	Manure	Quintals	9.65	210.83	2035.40
7	Fertilizer	Kg.	615.45	20.49	12610.62
8	Irrigation Charges	₹	-	-	3296.94
9	Plant Protection Charges	₹	11.08	1082.50	11991.95
10	Incidental Charges	₹	-	-	7944.89
11	Repairs on Farm Implements	₹	-	-	86.21
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**102986.12**
15	Interest on Working Capital	₹	-	-	6179.17
16	Depreciation on Farm Implements	₹	-	-	208.38
17	Land Revenue and Other Taxes	₹	-	-	26.05
18	**Cost A (14 to 17)**	**₹**			**109399.71**
19	Rental Value of Land				42874.86
20	Interest on Fixed Capital				312.57
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**152587.15**
23	Family Human Labour Days	Male	64.68	262.94	17007.24
		Female	49.40	200.00	9879.32
24	**Cost C (22 to 23)**				**179473.71**
25	Output	Main Produce	100.72	2555.55	257405.47
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				179473.71
27	**Per Quintal Cost**				**1781.84**

Table.R14

Cost of Cultivation					
District :- 01 District (Beed)			**Crop Name : Pointed gourd**		
Total Area (ha.)		**6.40**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	13046.88
2	Hired human labour (Days)	Male	15.63	300.00	4687.50
		Female	76.25	200.00	15250.00
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.94	600.00	562.50
5	Seed	Kg.	2.30	1700.34	3918.75
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	273.44	27.11	7412.50
8	Irrigation Charges	₹	-	-	2601.78
9	Plant Protection Charges	₹	4.57	1516.58	6931.25
10	Incidental Charges	₹	-	-	3517.19
11	Repairs on Farm Implements	₹	-	-	37.96
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**57966.30**
15	Interest on Working Capital	₹	-	-	3477.98
16	Depreciation on Farm Implements	₹	-	-	267.27
17	Land Revenue and Other Taxes	₹	-	-	16.68
18	**Cost A (14 to 17)**	**₹**			**61728.23**
19	Rental Value of Land				17655.97
20	Interest on Fixed Capital				630.15
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**80014.35**
23	Family Human Labour Days	Male	73.13	300.00	21937.50
		Female	65.94	200.00	13187.50
24	**Cost C (22 to 23)**				**115139.35**
25	Output	Main Produce	68.91	1538.84	106035.94
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				115139.35
27	**Per Quintal Cost**				**1670.96**

Table.R15

Cost of Cultivation					
District :- 01 District (Dhule)			**Crop Name : Sponge gourd**		
Total Area (ha.)		**6.20**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	50048.39
2	Hired human labour (Days)	Male	16.13	300.00	4838.71
		Female	86.77	200.00	17354.84
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	4.19	946.15	3967.74
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	452.90	22.05	9988.71
8	Irrigation Charges	₹	-	-	2885.19
9	Plant Protection Charges	₹	11.10	1141.32	12674.19
10	Incidental Charges	₹	-	-	9798.39
11	Repairs on Farm Implements	₹	-	-	38.39
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**111594.55**
15	Interest on Working Capital	₹	-	-	6695.67
16	Depreciation on Farm Implements	₹	-	-	514.53
17	Land Revenue and Other Taxes	₹	-	-	32.12
18	**Cost A (14 to 17)**	**₹**			**118836.87**
19	Rental Value of Land				44961.43
20	Interest on Fixed Capital				1213.14
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**165011.44**
23	Family Human Labour Days	Male	48.23	300.00	14467.74
		Female	43.71	200.00	8741.94
24	**Cost C (22 to 23)**				**188221.11**
25	Output	Main Produce	154.35	1748.97	269961.29
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				188221.11
27	**Per Quintal Cost**				**1219.41**

Table.R16

Cost of Cultivation					
District :- 01 District (Beed)			**Crop Name : Beetroot**		
Total Area (ha.)		**9.60**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	14015.63
2	Hired human labour (Days)	Male	2.71	300.00	812.50
		Female	32.71	200.00	6541.67
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	12.19	801.28	9765.63
5	Seed	Kg.	13.13	1126.98	14791.67
6	Manure	Quintals	6.25	200.00	1250.00
7	Fertilizer	Kg.	765.63	14.81	11338.54
8	Irrigation Charges	₹	-	-	3476.22
9	Plant Protection Charges	₹	2.71	1069.23	2895.83
10	Incidental Charges	₹	-	-	9198.96
11	Repairs on Farm Implements	₹	-	-	142.84
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**74229.47**
15	Interest on Working Capital	₹	-	-	4453.77
16	Depreciation on Farm Implements	₹	-	-	342.25
17	Land Revenue and Other Taxes	₹	-	-	21.36
18	**Cost A (14 to 17)**	**₹**			**79046.85**
19	Rental Value of Land				44865.36
20	Interest on Fixed Capital				806.94
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**124719.15**
23	Family Human Labour Days	Male	32.92	300.00	9875.00
		Female	18.44	200.00	3687.50
24	**Cost C (22 to 23)**				**138281.65**
25	Output	Main Produce	224.48	1199.76	269320.31
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				138281.65
27	**Per Quintal Cost**				**616.01**

Table.R17

Cost of Cultivation					
District :- 01 District (Buldhana)			**Crop Name : Carrot**		
Total Area (ha.)		**8.70**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	12747.13
2	Hired human labour (Days)	Male	24.48	300.00	7344.83
		Female	91.72	200.00	18344.83
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	4.18	1335.16	5586.21
6	Manure	Quintals	54.02	179.57	9701.15
7	Fertilizer	Kg.	695.40	8.13	5656.32
8	Irrigation Charges	₹	-	-	1897.31
9	Plant Protection Charges	₹	0.00	0.00	0.00
10	Incidental Charges	₹	-	-	7812.64
11	Repairs on Farm Implements	₹	-	-	172.92
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**69263.33**
15	Interest on Working Capital	₹	-	-	4155.80
16	Depreciation on Farm Implements	₹	-	-	319.35
17	Land Revenue and Other Taxes	₹	-	-	19.93
18	**Cost A (14 to 17)**	**₹**			**73758.42**
19	Rental Value of Land				107355.54
20	Interest on Fixed Capital				752.96
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**181866.92**
23	Family Human Labour Days	Male	27.36	300.00	8206.90
		Female	26.32	200.00	5264.37
24	**Cost C (22 to 23)**				**195338.19**
25	Output	Main Produce	292.87	2199.76	644252.87
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				195338.19
27	**Per Quintal Cost**				**666.97**

Table.R18

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Radish**		
Total Area (ha.)		**18.80**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	12877.66
2	Hired human labour (Days)	Male	21.86	268.37	5867.02
		Female	100.48	184.36	18523.94
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	4.04	610.53	2468.09
5	Seed	Kg.	17.69	94.74	1675.53
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	518.62	21.69	11251.06
8	Irrigation Charges	₹	-	-	3504.67
9	Plant Protection Charges	₹	4.12	247.03	1018.35
10	Incidental Charges	₹	-	-	4242.55
11	Repairs on Farm Implements	₹	-	-	52.61
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**61481.48**
15	Interest on Working Capital	₹	-	-	3688.89
16	Depreciation on Farm Implements	₹	-	-	283.47
17	Land Revenue and Other Taxes	₹	-	-	17.69
18	**Cost A (14 to 17)**	**₹**			**65471.54**
19	Rental Value of Land				48366.58
20	Interest on Fixed Capital				668.36
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**114506.48**
23	Family Human Labour Days	Male	68.03	265.52	18063.83
		Female	67.71	184.52	12494.68
24	**Cost C (22 to 23)**				**145064.99**
25	Output	Main Produce	208.94	1389.45	290305.64
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				145064.99
27	**Per Quintal Cost**				**694.30**

Cost of Cultivation Tables (Crop wise)

Volume I

Section C

Season: Summer

Year: 2018-19

Cereals

Table.S1

Cost of Cultivation					
District :- 01 District (Latur)			**Crop Name : Bajra**		
Total Area (ha.)		**10.40**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	14798.08
2	Hired human labour (Days)	Male	8.65	300.00	2596.15
		Female	12.21	150.00	1831.73
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	4.85	253.97	1230.77
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	259.62	14.00	3634.62
8	Irrigation Charges	₹	-	-	29.81
9	Plant Protection Charges	₹	0.27	625.00	168.27
10	Incidental Charges	₹	-	-	1770.19
11	Repairs on Farm Implements	₹	-	-	17.52
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**26077.13**
15	Interest on Working Capital	₹	-	-	1564.63
16	Depreciation on Farm Implements	₹	-	-	1375.95
17	Land Revenue and Other Taxes	₹	-	-	17.75
18	**Cost A (14 to 17)**	**₹**			**29035.47**
19	Rental Value of Land				8031.93
20	Interest on Fixed Capital				3656.41
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**40723.81**
23	Family Human Labour Days	Male	0.10	300.00	28.85
		Female	0.00	0.00	0.00
24	**Cost C (22 to 23)**				**40752.66**
25	Output	Main Produce	32.60	1401.18	45673.08
		By-Produce	-	-	2625.00
26	Cost C (Net By-Produce)				38127.66
27	**Per Quintal Cost**				**1169.70**

Table.S2

Cost of Cultivation					
District :- 01 District (Jalgaon)			**Crop Name : Maize**		
Total Area (ha.)		**36.20**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	8899.45
2	Hired human labour (Days)	Male	0.00	0.00	0.00
		Female	6.91	200.00	1381.22
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	5.50	1040.20	5718.23
5	Seed	Kg.	17.65	167.48	2956.35
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	258.29	17.00	4390.88
8	Irrigation Charges	₹	-	-	1875.00
9	Plant Protection Charges	₹	3.07	1012.25	3103.87
10	Incidental Charges	₹	-	-	1536.46
11	Repairs on Farm Implements	₹	-	-	60.14
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**29921.61**
15	Interest on Working Capital	₹	-	-	1795.30
16	Depreciation on Farm Implements	₹	-	-	1880.69
17	Land Revenue and Other Taxes	₹	-	-	19.27
18	**Cost A (14 to 17)**	**₹**			**33616.86**
19	Rental Value of Land				9327.09
20	Interest on Fixed Capital				6244.65
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**49188.60**
23	Family Human Labour Days	Male	4.25	300.00	1276.24
		Female	6.41	200.00	1281.77
24	**Cost C (22 to 23)**				**51746.61**
25	Output	Main Produce	43.23	1227.75	53078.18
		By-Produce	-	-	3000.00
26	Cost C (Net By-Produce)				48746.61
27	**Per Quintal Cost**				**1127.56**

Table.S3

Cost of Cultivation					
District :- 07 Districts			**Crop Name : Paddy**		
Total Area (ha.)		**78.42**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	5592.96
2	Hired human labour (Days)	Male	9.41	268.09	2522.95
		Female	36.60	207.89	7608.39
3	Bullock Pair	Pair days	1.42	883.78	1250.96
4	Mechanical Power	Hours	5.73	857.91	4912.02
5	Seed	Kg.	32.12	105.75	3396.84
6	Manure	Quintals	20.40	158.13	3226.22
7	Fertilizer	Kg.	513.76	16.95	8708.17
8	Irrigation Charges	₹	-	-	375.41
9	Plant Protection Charges	₹	0.40	967.87	391.86
10	Incidental Charges	₹	-	-	6667.55
11	Repairs on Farm Implements	₹	-	-	48.80
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**44702.14**
15	Interest on Working Capital	₹	-	-	2682.13
16	Depreciation on Farm Implements	₹	-	-	527.59
17	Land Revenue and Other Taxes	₹	-	-	35.48
18	**Cost A (14 to 17)**	**₹**			**47947.34**
19	Rental Value of Land				12219.36
20	Interest on Fixed Capital				1176.06
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**61342.76**
23	Family Human Labour Days	Male	44.47	267.41	11890.46
		Female	32.58	210.39	6854.76
24	**Cost C (22 to 23)**				**80087.98**
25	Output	Main Produce	33.53	1914.16	64177.51
		By-Produce	-	-	9351.57
26	Cost C (Net By-Produce)				70736.41
27	**Per Quintal Cost**				**2109.78**

Oilseeds

Table.S4

Cost of Cultivation					
District :- 05 Districts			**Crop Name : Groundnut**		
Total Area (ha.)		**29.30**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	13355.97
2	Hired human labour (Days)	Male	1.60	267.02	428.33
		Female	66.28	200.26	13273.04
3	Bullock Pair	Pair days	1.43	950.00	1361.77
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	91.06	114.51	10426.96
6	Manure	Quintals	4.95	114.90	568.60
7	Fertilizer	Kg.	363.48	14.16	5147.78
8	Irrigation Charges	₹	-	-	3446.69
9	Plant Protection Charges	₹	1.26	558.92	705.80
10	Incidental Charges	₹	-	-	1862.46
11	Repairs on Farm Implements	₹	-	-	42.92
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**50620.33**
15	Interest on Working Capital	₹	-	-	3037.22
16	Depreciation on Farm Implements	₹	-	-	1284.02
17	Land Revenue and Other Taxes	₹	-	-	38.34
18	**Cost A (14 to 17)**	**₹**			**54979.91**
19	Rental Value of Land				19487.60
20	Interest on Fixed Capital				2507.73
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**76975.25**
23	Family Human Labour Days	Male	10.10	270.95	2737.20
		Female	8.12	200.42	1627.99
24	**Cost C (22 to 23)**				**81340.44**
25	Output	Main Produce	25.94	4480.46	116216.72
		By-Produce	-	-	938.91
26	Cost C (Net By-Produce)				80401.53
27	**Per Quintal Cost**				**3099.69**

Fruits

Table.S5

Cost of Cultivation					
District :- 05 Districts			**Crop Name : Watermelon**		
Total Area (ha.)		**44.00**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	19271.59
2	Hired human labour (Days)	Male	21.57	280.24	6044.32
		Female	56.43	179.96	10155.68
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	13.68	738.04	10097.73
5	Seed	Kg.	3.08	1242.98	3825.00
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	1198.86	5.18	6205.68
8	Irrigation Charges	₹	-	-	2848.81
9	Plant Protection Charges	₹	12.67	437.94	5548.86
10	Incidental Charges	₹	-	-	17762.91
11	Repairs on Farm Implements	₹	-	-	30.64
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**81791.22**
15	Interest on Working Capital	₹	-	-	4907.47
16	Depreciation on Farm Implements	₹	-	-	305.41
17	Land Revenue and Other Taxes	₹	-	-	61.08
18	**Cost A (14 to 17)**	**₹**			**87065.19**
19	Rental Value of Land				74737.70
20	Interest on Fixed Capital				610.83
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**162413.71**
23	Family Human Labour Days	Male	36.45	281.76	10271.59
		Female	14.59	179.91	2625.00
24	**Cost C (22 to 23)**				**175310.30**
25	Output	Main Produce	266.05	1686.26	448622.23
		By-Produce	-	-	170.45
26	Cost C (Net By-Produce)				175139.85
27	**Per Quintal Cost**				**658.31**

Table.S6

Cost of Cultivation					
District :- 01 District (Aurangabad)			**Crop Name : Muskmelon**		
Total Area (ha.)		**8.20**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	20719.51
2	Hired human labour (Days)	Male	22.44	350.00	7853.66
		Female	60.49	200.00	12097.56
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	16.95	750.00	12713.41
5	Seed	Kg.	3.35	1283.64	4304.88
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	1512.20	4.64	7012.20
8	Irrigation Charges	₹	-	-	2563.21
9	Plant Protection Charges	₹	15.20	391.73	5952.44
10	Incidental Charges	₹	-	-	19207.32
11	Repairs on Farm Implements	₹	-	-	21.89
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**92446.08**
15	Interest on Working Capital	₹	-	-	5546.76
16	Depreciation on Farm Implements	₹	-	-	345.20
17	Land Revenue and Other Taxes	₹	-	-	69.04
18	**Cost A (14 to 17)**	**₹**			**98407.08**
19	Rental Value of Land				126706.98
20	Interest on Fixed Capital				690.40
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**225804.46**
23	Family Human Labour Days	Male	35.12	350.00	12292.68
		Female	15.61	200.00	3121.95
24	**Cost C (22 to 23)**				**241219.09**
25	Output	Main Produce	269.51	2822.34	760656.10
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				241219.09
27	**Per Quintal Cost**				**895.02**

Vegetables

Table.S7

Cost of Cultivation					
District :- 01 District (Hingoli)			**Crop Name : Cucumber**		
Total Area (ha.)		**3.10**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	12661.29
2	Hired human labour (Days)	Male	20.00	300.00	6000.00
		Female	49.03	200.00	9806.45
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	2.58	700.00	1806.45
5	Seed	Kg.	1.28	3660.38	4693.55
6	Manure	Quintals	0.00	0.00	0.00
7	Fertilizer	Kg.	253.23	22.71	5750.00
8	Irrigation Charges	₹	-	-	3148.04
9	Plant Protection Charges	₹	8.05	899.80	7241.94
10	Incidental Charges	₹	-	-	8243.55
11	Repairs on Farm Implements	₹	-	-	24.98
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**59376.25**
15	Interest on Working Capital	₹	-	-	3562.57
16	Depreciation on Farm Implements	₹	-	-	142.91
17	Land Revenue and Other Taxes	₹	-	-	17.86
18	**Cost A (14 to 17)**	**₹**			**63099.59**
19	Rental Value of Land				17824.07
20	Interest on Fixed Capital				214.36
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**81138.02**
23	Family Human Labour Days	Male	129.03	300.00	38709.68
		Female	105.16	200.00	21032.26
24	**Cost C (22 to 23)**				**140879.96**
25	Output	Main Produce	72.58	1474.93	107051.61
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				140879.96
27	**Per Quintal Cost**				**1941.01**

Cost of Cultivation Tables (Crop wise)

Volume I

Section C

Season: Perennial

Year: 2018-19

Sugar

Table.P1

Cost of Cultivation					
District :- 26 Districts			**Crop Name : Sugarcane**		
Total Area (ha.)		**581.30**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	23953.32
2	Hired human labour (Days)	Male	14.96	273.23	4088.85
		Female	25.89	167.41	4333.82
3	Bullock Pair	Pair days	1.99	781.66	1554.45
4	Mechanical Power	Hours	5.94	821.50	4879.84
5	Seed	Kg.	8145.93	2.42	19682.54
6	Manure	Quintals	77.27	154.27	11919.93
7	Fertilizer	Kg.	949.31	17.05	16183.48
8	Irrigation Charges	₹	-	-	2034.42
9	Plant Protection Charges	₹	3.08	1069.81	3295.52
10	Incidental Charges	₹	-	-	4489.30
11	Repairs on Farm Implements	₹	-	-	131.09
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**96546.55**
15	Interest on Working Capital	₹	-	-	5792.79
16	Depreciation on Farm Implements	₹	-	-	524.46
17	Land Revenue and Other Taxes	₹	-	-	78.67
18	**Cost A (14 to 17)**	**₹**			**102942.48**
19	Rental Value of Land				36318.29
20	Interest on Fixed Capital				786.69
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**140047.46**
23	Family Human Labour Days	Male	21.26	287.02	6103.39
		Female	3.26	184.44	600.64
24	**Cost C (22 to 23)**				**146751.49**
25	Output	Main Produce	973.51	223.23	217314.59
		By-Produce	-	-	1067.19
26	Cost C (Net By-Produce)				145684.29
27	**Per Quintal Cost**				**149.65**

Fruits

Table.P2

Cost of Cultivation					
District :- 14 Districts			**Crop Name : Banana**		
Total Area (ha.)		**272.77**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	31688.46
2	Hired human labour (Days)	Male	23.40	275.34	6442.06
		Female	17.06	143.70	2451.88
3	Bullock Pair	Pair days	0.19	500.00	93.49
4	Mechanical Power	Hours	14.30	715.98	10239.58
5	Seed	Kg.	2977.62	10.29	30647.04
6	Manure	Quintals	120.25	163.65	19678.96
7	Fertilizer	Kg.	969.87	13.83	13411.79
8	Irrigation Charges	₹	-	-	1928.46
9	Plant Protection Charges	₹	9.59	945.24	9066.26
10	Incidental Charges	₹	-	-	6127.28
11	Repairs on Farm Implements	₹	-	-	71.24
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**131846.50**
15	Interest on Working Capital	₹	-	-	7910.79
16	Depreciation on Farm Implements	₹	-	-	13526.52
17	Land Revenue and Other Taxes	₹	-	-	58.81
18	**Cost A (14 to 17)**	**₹**			**153342.61**
19	Rental Value of Land				70516.27
20	Interest on Fixed Capital				7057.31
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**230916.20**
23	Family Human Labour Days	Male	44.92	298.40	13403.05
		Female	9.88	171.32	1692.63
24	**Cost C (22 to 23)**				**246011.88**
25	Output	Main Produce	484.20	874.54	423450.49
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				246011.88
27	**Per Quintal Cost**				**508.08**

Table.P3

Cost of Cultivation					
District :- 08 Districts			**Crop Name : Limes**		
Total Area (ha.)		**77.30**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	25071.15
2	Hired human labour (Days)	Male	3.39	283.59	961.19
		Female	73.36	197.65	14500.00
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	3.71	796.17	2956.02
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	117.70	153.03	18011.64
7	Fertilizer	Kg.	758.86	12.06	9152.26
8	Irrigation Charges	₹	-	-	2219.16
9	Plant Protection Charges	₹	5.08	1071.15	5446.49
10	Incidental Charges	₹	-	-	7273.22
11	Repairs on Farm Implements	₹	-	-	86.98
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**85678.12**
15	Interest on Working Capital	₹	-	-	5140.69
16	Depreciation on Farm Implements	₹	-	-	5109.87
17	Land Revenue and Other Taxes	₹	-	-	47.81
18	**Cost A (14 to 17)**	**₹**			**95976.48**
19	Rental Value of Land				40806.27
20	Interest on Fixed Capital				2847.08
21	Amortization Cost				4493.35
22	**Cost B (18 to 21)**				**144123.18**
23	Family Human Labour Days	Male	59.09	288.70	17060.80
		Female	45.82	193.27	8855.76
24	**Cost C (22 to 23)**				**170039.74**
25	Output	Main Produce	139.93	1751.78	245124.45
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				170039.74
27	**Per Quintal Cost**				**1215.19**

Table.P4

Cost of Cultivation					
District :- 12 Districts			**Crop Name : Pomegranate**		
Total Area (ha.)		**234.00**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	59717.07
2	Hired human labour (Days)	Male	11.89	300.00	3567.95
		Female	17.10	200.41	3426.71
3	Bullock Pair	Pair days	0.91	1041.51	943.59
4	Mechanical Power	Hours	1.47	587.17	860.68
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	84.02	132.36	11120.43
7	Fertilizer	Kg.	859.47	20.39	17528.33
8	Irrigation Charges	₹	-	-	2476.48
9	Plant Protection Charges	₹	16.84	2607.81	43924.36
10	Incidental Charges	₹	-	-	5441.41
11	Repairs on Farm Implements	₹	-	-	80.02
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**149087.03**
15	Interest on Working Capital	₹	-	-	8945.22
16	Depreciation on Farm Implements	₹	-	-	8891.60
17	Land Revenue and Other Taxes	₹	-	-	83.19
18	**Cost A (14 to 17)**	**₹**			**167007.04**
19	Rental Value of Land				119165.25
20	Interest on Fixed Capital				4954.16
21	Amortization Cost				14749.41
22	**Cost B (18 to 21)**				**305875.85**
23	Family Human Labour Days	Male	27.03	300.00	8110.26
		Female	8.88	197.93	1756.84
24	**Cost C (22 to 23)**				**315742.95**
25	Output	Main Produce	246.60	2901.44	715490.60
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				315742.95
27	**Per Quintal Cost**				**1280.39**

Table.P5

Cost of Cultivation					
District :- 05 Districts			**Crop Name : Mandarin**		
Total Area (ha.)		**152.18**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	2145.88
2	Hired human labour (Days)	Male	39.85	284.41	11334.93
		Female	54.05	151.96	8213.30
3	Bullock Pair	Pair days	0.99	800.00	793.80
4	Mechanical Power	Hours	10.35	290.25	3004.01
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	53.94	177.31	9564.50
7	Fertilizer	Kg.	306.41	22.62	6931.99
8	Irrigation Charges	₹	-	-	1554.40
9	Plant Protection Charges	₹	6.23	1600.74	9977.00
10	Incidental Charges	₹	-	-	6225.85
11	Repairs on Farm Implements	₹	-	-	89.27
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**59834.91**
15	Interest on Working Capital	₹	-	-	3590.09
16	Depreciation on Farm Implements	₹	-	-	3568.58
17	Land Revenue and Other Taxes	₹	-	-	33.39
18	**Cost A (14 to 17)**	**₹**			**67026.97**
19	Rental Value of Land				55440.07
20	Interest on Fixed Capital				1988.31
21	Amortization Cost				3369.61
22	**Cost B (18 to 21)**				**127824.96**
23	Family Human Labour Days	Male	20.06	318.55	6388.49
		Female	3.60	215.69	776.71
24	**Cost C (22 to 23)**				**134990.15**
25	Output	Main Produce	163.02	2040.18	332584.44
		By-Produce	-	-	256.28
26	Cost C (Net By-Produce)				134733.88
27	**Per Quintal Cost**				**826.50**

Table.P6

Cost of Cultivation					
District :- 05 Districts			**Crop Name : Grapes**		
Total Area (ha.)		**115.70**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	37372.86
2	Hired human labour (Days)	Male	66.93	300.00	20079.52
		Female	40.61	179.14	7273.98
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	2.46	643.51	1585.13
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	59.46	198.24	11788.25
7	Fertilizer	Kg.	2339.67	23.24	54379.43
8	Irrigation Charges	₹	-	-	2914.46
9	Plant Protection Charges	₹	107.71	984.43	106032.84
10	Incidental Charges	₹	-	-	10899.74
11	Repairs on Farm Implements	₹	-	-	187.68
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**252513.89**
15	Interest on Working Capital	₹	-	-	15150.83
16	Depreciation on Farm Implements	₹	-	-	15060.02
17	Land Revenue and Other Taxes	₹	-	-	140.89
18	**Cost A (14 to 17)**	**₹**			**282865.64**
19	Rental Value of Land				168996.01
20	Interest on Fixed Capital				8391.03
21	Amortization Cost				70602.65
22	**Cost B (18 to 21)**				**530855.32**
23	Family Human Labour Days	Male	26.24	300.00	7872.08
		Female	13.48	191.19	2577.79
24	**Cost C (22 to 23)**				**541305.19**
25	Output	Main Produce	266.68	3769.34	1005210.35
		By-Produce	-	-	9611.06
26	Cost C (Net By-Produce)				531694.13
27	**Per Quintal Cost**				**1993.75**

Table.P7

Cost of Cultivation					
District :- 10 Districts			**Crop Name : Mango**		
Total Area (ha.)		**114.80**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	13810.45
2	Hired human labour (Days)	Male	42.56	295.98	12597.13
		Female	45.92	183.53	8428.14
3	Bullock Pair	Pair days	9.10	979.09	8912.46
4	Mechanical Power	Hours	2.39	781.39	1864.98
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	139.72	147.67	20632.40
7	Fertilizer	Kg.	819.70	14.66	12014.42
8	Irrigation Charges	₹	-	-	3740.87
9	Plant Protection Charges	₹	30.32	1363.43	41341.07
10	Incidental Charges	₹	-	-	15837.92
11	Repairs on Farm Implements	₹	-	-	119.29
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**139299.13**
15	Interest on Working Capital	₹	-	-	8357.95
16	Depreciation on Farm Implements	₹	-	-	644.77
17	Land Revenue and Other Taxes	₹	-	-	53.73
18	**Cost A (14 to 17)**	**₹**			**148355.58**
19	Rental Value of Land				92113.85
20	Interest on Fixed Capital				859.69
21	Amortization Cost				10342.54
22	**Cost B (18 to 21)**				**251671.66**
23	Family Human Labour Days	Male	68.60	293.37	20124.13
		Female	23.24	181.20	4211.24
24	**Cost C (22 to 23)**				**276007.02**
25	Output	Main Produce	100.68	5492.73	553005.49
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				276007.02
27	**Per Quintal Cost**				**2741.44**

Table.P8

Cost of Cultivation					
District :- 07 Districts			**Crop Name : Sapota**		
Total Area (ha.)		**69.24**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	43109.76
2	Hired human labour (Days)	Male	15.64	299.58	4685.88
		Female	7.57	230.15	1741.77
3	Bullock Pair	Pair days	0.77	1325.47	1014.59
4	Mechanical Power	Hours	6.44	769.39	4955.95
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	246.39	135.41	33363.81
7	Fertilizer	Kg.	1203.78	9.80	11803.08
8	Irrigation Charges	₹	-	-	2095.63
9	Plant Protection Charges	₹	11.51	1546.43	17804.16
10	Incidental Charges	₹	-	-	13269.93
11	Repairs on Farm Implements	₹	-	-	49.96
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**133894.51**
15	Interest on Working Capital	₹	-	-	8033.67
16	Depreciation on Farm Implements	₹	-	-	776.44
17	Land Revenue and Other Taxes	₹	-	-	77.64
18	**Cost A (14 to 17)**	**₹**			**142782.26**
19	Rental Value of Land				45358.55
20	Interest on Fixed Capital				776.44
21	Amortization Cost				2817.96
22	**Cost B (18 to 21)**				**191735.20**
23	Family Human Labour Days	Male	46.71	293.46	13706.67
		Female	10.36	204.32	2115.83
24	**Cost C (22 to 23)**				**207557.70**
25	Output	Main Produce	140.35	1942.38	272617.16
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				207557.70
27	**Per Quintal Cost**				**1478.83**

Table.P9

Cost of Cultivation					
District :- 07 Districts			**Crop Name : Sweet Orange**		
Total Area (ha.)		**169.52**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	4177.74
2	Hired human labour (Days)	Male	85.49	288.44	24658.45
		Female	36.34	168.11	6109.90
3	Bullock Pair	Pair days	0.42	968.06	411.16
4	Mechanical Power	Hours	1.53	621.04	948.86
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	52.03	103.85	5403.46
7	Fertilizer	Kg.	538.17	18.61	10015.63
8	Irrigation Charges	₹	-	-	2348.36
9	Plant Protection Charges	₹	4.75	1855.13	8803.98
10	Incidental Charges	₹	-	-	9806.51
11	Repairs on Farm Implements	₹	-	-	159.77
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**72843.81**
15	Interest on Working Capital	₹	-	-	4370.63
16	Depreciation on Farm Implements	₹	-	-	4344.43
17	Land Revenue and Other Taxes	₹	-	-	40.64
18	**Cost A (14 to 17)**	**₹**			**81599.52**
19	Rental Value of Land				54508.60
20	Interest on Fixed Capital				2420.60
21	Amortization Cost				6049.87
22	**Cost B (18 to 21)**				**144578.59**
23	Family Human Labour Days	Male	13.30	282.57	3758.85
		Female	5.08	193.10	981.89
24	**Cost C (22 to 23)**				**149319.33**
25	Output	Main Produce	154.87	2112.02	327093.74
		By-Produce	-	-	201.75
26	Cost C (Net By-Produce)				149117.58
27	**Per Quintal Cost**				**962.84**

Table.P10

Cost of Cultivation					
District :- 08 Districts			**Crop Name : Papaya**		
Total Area (ha.)		**109.48**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	11667.88
2	Hired human labour (Days)	Male	45.87	195.49	8967.39
		Female	48.18	133.73	6443.64
3	Bullock Pair	Pair days	2.53	766.06	1938.25
4	Mechanical Power	Hours	10.11	662.92	6703.05
5	Seed	Kg.	3158.31	7.51	23719.49
6	Manure	Quintals	109.78	119.86	13158.84
7	Fertilizer	Kg.	2248.93	15.65	35205.24
8	Irrigation Charges	₹	-	-	2274.03
9	Plant Protection Charges	₹	5.95	1372.06	8161.81
10	Incidental Charges	₹	-	-	13924.05
11	Repairs on Farm Implements	₹	-	-	133.15
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**132296.84**
15	Interest on Working Capital	₹	-	-	7937.81
16	Depreciation on Farm Implements	₹	-	-	7890.23
17	Land Revenue and Other Taxes	₹	-	-	73.82
18	**Cost A (14 to 17)**	**₹**			**148198.70**
19	Rental Value of Land				81619.34
20	Interest on Fixed Capital				4396.22
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**234214.26**
23	Family Human Labour Days	Male	32.14	305.27	9812.29
		Female	14.28	198.18	2829.28
24	**Cost C (22 to 23)**				**246855.84**
25	Output	Main Produce	552.16	887.72	490158.97
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				246855.84
27	**Per Quintal Cost**				**447.08**

Table.P11

Cost of Cultivation					
District :- 06 Districts			**Crop Name : Guava**		
Total Area (ha.)		**56.10**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	13805.70
2	Hired human labour (Days)	Male	50.02	298.57	14934.05
		Female	8.79	191.89	1686.27
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	22.35	727.63	16264.71
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	60.87	139.88	8515.15
7	Fertilizer	Kg.	539.22	9.43	5085.74
8	Irrigation Charges	₹	-	-	1024.99
9	Plant Protection Charges	₹	15.36	1492.58	22926.20
10	Incidental Charges	₹	-	-	4845.54
11	Repairs on Farm Implements	₹	-	-	48.70
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**89137.06**
15	Interest on Working Capital	₹	-	-	5348.22
16	Depreciation on Farm Implements	₹	-	-	5316.17
17	Land Revenue and Other Taxes	₹	-	-	49.74
18	**Cost A (14 to 17)**	**₹**			**99851.18**
19	Rental Value of Land				62406.89
20	Interest on Fixed Capital				2962.02
21	Amortization Cost				4740.35
22	**Cost B (18 to 21)**				**169960.44**
23	Family Human Labour Days	Male	54.30	292.99	15908.20
		Female	6.97	189.77	1322.64
24	**Cost C (22 to 23)**				**187191.28**
25	Output	Main Produce	171.60	2183.74	374739.75
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				187191.28
27	**Per Quintal Cost**				**1090.83**

Table.P12

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Custard apple**		
Total Area (ha.)		**27.24**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	0.00
2	Hired human labour (Days)	Male	32.53	257.00	8359.03
		Female	33.55	144.91	4862.33
3	Bullock Pair	Pair days	4.37	250.00	1092.14
4	Mechanical Power	Hours	9.91	662.96	6571.22
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	273.86	69.95	19155.65
7	Fertilizer	Kg.	585.54	22.21	13003.93
8	Irrigation Charges	₹	-	-	4236.42
9	Plant Protection Charges	₹	6.98	1314.58	9169.24
10	Incidental Charges	₹	-	-	6009.47
11	Repairs on Farm Implements	₹	-	-	218.34
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**72677.77**
15	Interest on Working Capital	₹	-	-	4360.67
16	Depreciation on Farm Implements	₹	-	-	4334.53
17	Land Revenue and Other Taxes	₹	-	-	40.55
18	**Cost A (14 to 17)**	**₹**			**81413.52**
19	Rental Value of Land				31129.47
20	Interest on Fixed Capital				2415.08
21	Amortization Cost				26642.26
22	**Cost B (18 to 21)**				**141600.33**
23	Family Human Labour Days	Male	20.59	300.00	6178.41
		Female	10.17	186.82	1899.78
24	**Cost C (22 to 23)**				**149678.53**
25	Output	Main Produce	42.91	4357.94	187020.15
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				149678.53
27	**Per Quintal Cost**				**3487.80**

Table.P13

Cost of Cultivation					
District :- 01 District (Pune)			**Crop Name : Fig**		
Total Area (ha.)		**8.70**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	37988.51
2	Hired human labour (Days)	Male	21.49	300.00	6448.28
		Female	3.10	200.00	620.69
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	5.06	1118.18	5655.17
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	345.98	148.11	51241.38
7	Fertilizer	Kg.	1283.91	63.41	81408.05
8	Irrigation Charges	₹	-	-	1949.99
9	Plant Protection Charges	₹	20.17	3000.63	60529.89
10	Incidental Charges	₹	-	-	16827.59
11	Repairs on Farm Implements	₹	-	-	132.25
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**262801.78**
15	Interest on Working Capital	₹	-	-	15768.11
16	Depreciation on Farm Implements	₹	-	-	15673.59
17	Land Revenue and Other Taxes	₹	-	-	146.63
18	**Cost A (14 to 17)**	**₹**			**294390.11**
19	Rental Value of Land				288365.80
20	Interest on Fixed Capital				8732.89
21	Amortization Cost				21425.48
22	**Cost B (18 to 21)**				**612914.29**
23	Family Human Labour Days	Male	107.24	300.00	32172.41
		Female	6.78	200.00	1356.32
24	**Cost C (22 to 23)**				**646443.02**
25	Output	Main Produce	380.46	4549.95	1731074.60
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				646443.02
27	**Per Quintal Cost**				**1699.11**

Table.P14

Cost of Cultivation					
District :- 01 District (Solapur)			**Crop Name : Ber**		
Total Area (ha.)		**14.80**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	101209.46
2	Hired human labour (Days)	Male	0.00	0.00	0.00
		Female	14.32	150.00	2148.65
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	56.76	150.71	8554.05
7	Fertilizer	Kg.	1054.05	21.79	22972.97
8	Irrigation Charges	₹	-	-	2540.78
9	Plant Protection Charges	₹	25.88	1963.45	50810.81
10	Incidental Charges	₹	-	-	1777.03
11	Repairs on Farm Implements	₹	-	-	29.13
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**190042.88**
15	Interest on Working Capital	₹	-	-	11402.57
16	Depreciation on Farm Implements	₹	-	-	11334.22
17	Land Revenue and Other Taxes	₹	-	-	106.04
18	**Cost A (14 to 17)**	**₹**			**212885.71**
19	Rental Value of Land				90040.36
20	Interest on Fixed Capital				6315.12
21	Amortization Cost				3466.22
22	**Cost B (18 to 21)**				**312707.41**
23	Family Human Labour Days	Male	56.62	300.00	16986.49
		Female	10.61	150.00	1591.22
24	**Cost C (22 to 23)**				**331285.11**
25	Output	Main Produce	592.57	912.77	540878.38
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				331285.11
27	**Per Quintal Cost**				**559.07**

Table.P15

Cost of Cultivation					
District :- 01 District (Satara)			**Crop Name : Strawberry**		
Total Area (ha.)		**9.60**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	55589.58
2	Hired human labour (Days)	Male	43.96	300.00	13187.50
		Female	33.54	150.00	5031.25
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	2531.25	40.17	101687.50
6	Manure	Quintals	56.25	125.00	7031.25
7	Fertilizer	Kg.	767.71	21.48	16489.58
8	Irrigation Charges	₹	-	-	1551.11
9	Plant Protection Charges	₹	5.31	6766.67	35947.92
10	Incidental Charges	₹	-	-	19656.25
11	Repairs on Farm Implements	₹	-	-	176.08
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**256348.02**
15	Interest on Working Capital	₹	-	-	15380.88
16	Depreciation on Farm Implements	₹	-	-	15288.68
17	Land Revenue and Other Taxes	₹	-	-	143.03
18	**Cost A (14 to 17)**	**₹**			**287160.62**
19	Rental Value of Land				148423.46
20	Interest on Fixed Capital				8518.44
21	Amortization Cost				0.00
22	**Cost B (18 to 21)**				**444102.51**
23	Family Human Labour Days	Male	8.65	300.00	2593.75
		Female	1.56	150.00	234.38
24	**Cost C (22 to 23)**				**446930.64**
25	Output	Main Produce	206.46	4317.57	891398.96
		By-Produce	-	-	0.00
26	Cost C (Net By-Produce)				446930.64
27	**Per Quintal Cost**				**2164.75**

Table.P16

Cost of Cultivation					
District :- 01 District (Sindhudurg)			**Crop Name : Other Fruits (Jackfruit)**		
Total Area (ha.)		**14.36**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	0.00
2	Hired human labour (Days)	Male	112.40	250.00	28098.89
		Female	70.61	200.00	14122.56
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	0.00	0.00	0.00
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	5.57	137.50	766.02
7	Fertilizer	Kg.	1027.86	12.98	13339.83
8	Irrigation Charges	₹	-	-	2439.28
9	Plant Protection Charges	₹	9.54	1535.77	14651.81
10	Incidental Charges	₹	-	-	20417.83
11	Repairs on Farm Implements	₹	-	-	171.36
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**94007.57**
15	Interest on Working Capital	₹	-	-	5640.45
16	Depreciation on Farm Implements	₹	-	-	5606.64
17	Land Revenue and Other Taxes	₹	-	-	52.45
18	**Cost A (14 to 17)**	**₹**			**105307.12**
19	Rental Value of Land				69708.46
20	Interest on Fixed Capital				3123.87
21	Amortization Cost				11454.83
22	**Cost B (18 to 21)**				**189594.28**
23	Family Human Labour Days	Male	0.56	250.00	139.28
		Female	0.00	0.00	0.00
24	**Cost C (22 to 23)**				**189733.55**
25	Output	Main Produce	203.69	2052.51	418077.99
		By-Produce	-	-	487.47
26	Cost C (Net By-Produce)				189246.09
27	**Per Quintal Cost**				**929.09**

Plantation Crops

Table.P17

Cost of Cultivation					
District :- 03 Districts			**Crop Name : Arecanut**		
Total Area (ha.)		**40.52**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	619.45
2	Hired human labour (Days)	Male	20.09	273.28	5489.88
		Female	18.24	200.00	3647.58
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	3.16	773.44	2443.24
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	57.13	129.14	7377.84
7	Fertilizer	Kg.	227.54	6.74	1533.56
8	Irrigation Charges	₹	-	-	1929.73
9	Plant Protection Charges	₹	0.00	0.00	0.00
10	Incidental Charges	₹	-	-	4189.29
11	Repairs on Farm Implements	₹	-	-	162.45
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**27393.01**
15	Interest on Working Capital	₹	-	-	1643.58
16	Depreciation on Farm Implements	₹	-	-	143.39
17	Land Revenue and Other Taxes	₹	-	-	14.34
18	**Cost A (14 to 17)**	**₹**			**29194.32**
19	Rental Value of Land				15064.18
20	Interest on Fixed Capital				143.39
21	Amortization Cost				1424.04
22	**Cost B (18 to 21)**				**45825.92**
23	Family Human Labour Days	Male	16.31	269.36	4394.13
		Female	37.96	200.00	7591.31
24	**Cost C (22 to 23)**				**57811.36**
25	Output	Main Produce	61.30	1474.63	90399.56
		By-Produce	-	-	71.57
26	Cost C (Net By-Produce)				57739.79
27	**Per Quintal Cost**				**941.87**

Table.P18

Cost of Cultivation					
District :- 04 Districts			**Crop Name : Cashewnut**		
Total Area (ha.)		**43.78**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	3784.83
2	Hired human labour (Days)	Male	14.37	293.24	4213.11
		Female	23.96	181.17	4341.02
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	10.44	766.52	8001.37
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	80.17	135.10	10831.43
7	Fertilizer	Kg.	378.03	7.89	2980.81
8	Irrigation Charges	₹	-	-	189.77
9	Plant Protection Charges	₹	1.94	1020.00	1980.36
10	Incidental Charges	₹	-	-	4179.08
11	Repairs on Farm Implements	₹	-	-	226.23
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**40728.01**
15	Interest on Working Capital	₹	-	-	2443.68
16	Depreciation on Farm Implements	₹	-	-	203.50
17	Land Revenue and Other Taxes	₹	-	-	25.44
18	**Cost A (14 to 17)**	**₹**			**43400.63**
19	Rental Value of Land				55838.53
20	Interest on Fixed Capital				305.25
21	Amortization Cost				2327.01
22	**Cost B (18 to 21)**				**101871.41**
23	Family Human Labour Days	Male	22.70	288.43	6548.65
		Female	14.12	177.02	2498.86
24	**Cost C (22 to 23)**				**110918.92**
25	Output	Main Produce	25.24	12889.72	325334.35
		By-Produce	-	-	9849.43
26	Cost C (Net By-Produce)				101069.49
27	**Per Quintal Cost**				**4004.36**

Table.P19

Cost of Cultivation					
District :- 04 Districts			**Crop Name : Coconut**		
Total Area (ha.)		**34.04**	**Quantity**	**Rate/Unit**	**Value (₹/ha)**
1	Contract	₹	-	-	1315.94
2	Hired human labour (Days)	Male	48.29	294.74	14233.05
		Female	32.22	160.85	5183.00
3	Bullock Pair	Pair days	0.00	0.00	0.00
4	Mechanical Power	Hours	3.98	807.51	3212.83
5	Seed	Kg.	0.00	0.00	0.00
6	Manure	Quintals	128.07	141.88	18170.60
7	Fertilizer	Kg.	306.37	11.18	3424.39
8	Irrigation Charges	₹	-	-	930.08
9	Plant Protection Charges	₹	0.59	1644.50	966.10
10	Incidental Charges	₹	-	-	3835.48
11	Repairs on Farm Implements	₹	-	-	457.66
12	Insurance Premium	₹	-	-	0.00
13	Rab Material	₹	-	-	0.00
14	**Working Capital (1 to 13)**	**₹**			**51729.13**
15	Interest on Working Capital	₹	-	-	3103.75
16	Depreciation on Farm Implements	₹	-	-	327.24
17	Land Revenue and Other Taxes	₹	-	-	32.72
18	**Cost A (14 to 17)**	**₹**			**55192.85**
19	Rental Value of Land				35935.47
20	Interest on Fixed Capital				327.24
21	Amortization Cost				5388.91
22	**Cost B (18 to 21)**				**96844.47**
23	Family Human Labour Days	Male	24.62	280.61	6907.24
		Female	10.78	188.28	2029.73
24	**Cost C (22 to 23)**				**105781.43**
25	Output	Main Produce	12151.48	17.68	214813.48
		By-Produce	-	-	995.71
26	Cost C (Net By-Produce)				104785.72
27	**Per Piece Cost**				**8.62**

Cost & Returns Analysis

Season wise Crop wise Results

Volume I

Section D

RESULT AND DISCUSSION

1. Bajra

Cost structure

The breakup of the cost incurred by different size groups in various operations of Bajra cultivation is given in table T.1.1. On an average, ₹ 35563 was spent on Bajra per hectare. Cost of cultivation of small farm category was highest, ₹ 41316 followed by medium farms (₹ 36869) and large farms (₹ 33912). Among the different components of cost of cultivation, human labour accounted for largest portion (28.3 per cent) followed by Mechanical Power (12.7 per cent) and Fertilizers (8.1 per cent). Small farms had spent ₹ 4577 on family human labour and ₹ 3110 on Manure which is highest as compared to medium and large farms category in cultivating Bajra per hectare.

Table T.1.1 Item-wise break up of cost of cultivation/ha. of Bajra Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	6648	19.6	8021	21.8	10174	24.6	7422	20.9
Family	2038	6.0	3107	8.4	4577	11.1	2624	7.4
Bullock Pair	779	2.3	533	1.4	441	1.1	664	1.9
Mechanical Power	3853	11.4	5450	14.8	4828	11.7	4505	12.7
Seed	930	2.7	1110	3.0	1383	3.3	1031	2.9
Manure	2066	6.1	2654	7.2	3110	7.5	2361	6.6
Fertilizer	3343	9.9	2283	6.2	2103	5.1	2863	8.1
Irrigation Charges	979	2.9	280	0.8	501	1.2	690	1.9
Plant Protection Charges	636	1.9	95	0.3	35	0.1	394	1.1
Incidental charges	1724	5.1	1853	5.0	2055	5.0	1796	5.1
Repairs on Farm Implements	42	0.1	49	0.1	124	0.3	51	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1260	3.7	1340	3.6	1485	3.6	1307	3.7
Depreciation	1108	3.3	1178	3.2	1306	3.2	1149	3.2
Land Revenue and Other Taxes	14	0.0	15	0.0	17	0.0	15	0.0
Rental Value of Land	5546	16.4	5770	15.6	5705	13.8	5639	15.9
Interest on Fixed Capital	2945	8.7	3131	8.5	3471	8.4	3053	8.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**33912**	**100.0**	**36869**	**100.0**	**41316**	**100.0**	**35563**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Bajra cultivation for different size groups are given in table T.1.2. On an average, Cost A1 was ₹ 24247, which was highest on small farms (₹ 27562) and low on large farms (₹ 23383). In all, the table showed that cost Cost A1 to Cost C3 per hectare of Bajra was highest for small farms and lowest in large farms.

Table T.1.2 Different cost concepts basis on different size holdings of Bajra (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	23383	24862	27562	24247
Cost A_2	23383	24862	27562	24247
Cost B_1	26328	27993	31033	27300
Cost B_2	31873	33762	36738	32939
Cost C_1	28366	31100	35610	29924
Cost C_2	33912	36869	41316	35563
Cost C_3	37303	40556	45447	39119

Income measures

A comparison of various income measures from Bajra cultivation are given in table T.1.3.

Table T.1.3 Returns from cultivation of Bajra on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	9976	9846	6770	9675
Farm Business Income	9976	9846	6770	9675
Family Labour Income	1486	946	-2406	983
Net Income	-552	-2161	-6983	-1642
Returns to Management	-3944	-5848	-11115	-5198
Benefit Cost Ratio	0.98	0.94	0.83	0.95

The table reveals that returns over variable cost varied between ₹ 6770 to ₹ 9976. The returns over variable cost increased with increase in the size of land holding. The family labour income per hectare of Bajra cultivation turned out to be non-profitable for small farms whereas it was ₹ 946 in medium farms and ₹ 1486 in large farms. On an average, family labour income was worked out to be ₹ 983 per hectare. The overall net income from Bajra cultivation was non-beneficial. The overall returns to management from Bajra cultivation turned to be at loss with ₹ 5198 per hectare. Benefit cost ratio of large farms was highest (0.98) followed by medium farms (0.94) and small farms (0.83).

Cost of production per quintal

The cost of production of Bajra across different land size categories is given in table T.1.4. It reveals that on an average, ₹ 1963 was spent on producing a quintal of Bajra on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 2616) followed by medium farms (₹ 2071) and large farms (₹ 1818) per quintal. It concluded that small farmers spent relatively large amount of money for producing one quintal of Bajra than the other categories of farmer.

Table T.1.4 Cost of production of Bajra on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1254	1397	1745	1338
Cost A_2	1254	1397	1745	1338
Cost B_1	1412	1572	1965	1507
Cost B_2	1709	1896	2326	1818
Cost C_1	1521	1747	2255	1652
Cost C_2	1818	2071	2616	1963
Cost C_3	2000	2278	2878	2159

***

2. Maize

Cost structure

The table T.2.1 shows the breakup of the cost incurred by different size groups in various operations of Maize cultivation. On an average, ₹ 54155 was spent on Maize per hectare. Cost of cultivation of large farm category was highest, ₹ 60170 followed by medium farms (₹ 49511) and small farms (₹ 42269). Among the different components of cost of cultivation, contribution of human labour was highest (25.9 per cent) followed by Mechanical Power (13.1 per cent) and Fertilizers (7.5 per cent). Large farms had spent highest ₹ 15438 and ₹ 4910 on human labour and Fertilizers respectively, which was higher than that of medium farms (₹ 13261 and ₹ 3179) and small farms category (₹ 10751 and ₹ 2847).

Table T.2.1 Item-wise break up of cost of cultivation/ha. of Maize Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	11887	19.8	8174	16.5	5407	12.8	9755	18.0
Family	3551	5.9	5087	10.3	5344	12.6	4300	7.9
Bullock Pair	155	0.3	290	0.6	124	0.3	193	0.4
Mechanical Power	7900	13.1	6127	12.4	6297	14.9	7105	13.1
Seed	2635	4.4	2080	4.2	1379	3.3	2274	4.2
Manure	2773	4.6	2111	4.3	1196	2.8	2330	4.3
Fertilizer	4910	8.2	3179	6.4	2847	6.7	4059	7.5
Irrigation Charges	807	1.3	943	1.9	1410	3.3	940	1.7
Plant Protection Charges	1185	2.0	1158	2.3	971	2.3	1145	2.1
Incidental charges	1381	2.3	1814	3.7	2155	5.1	1632	3.0
Repairs on Farm Implements	42	0.1	47	0.1	93	0.2	51	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	2021	3.4	1555	3.1	1313	3.1	1769	3.3
Depreciation	2117	3.5	1629	3.3	1375	3.3	1853	3.4
Land Revenue and Other Taxes	22	0.0	17	0.0	14	0.0	19	0.0
Rental Value of Land	11756	19.5	9888	20.0	7779	18.4	10576	19.5
Interest on Fixed Capital	7028	11.7	5410	10.9	4566	10.8	6153	11.4
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**60170**	**100.0**	**49511**	**100.0**	**42269**	**100.0**	**54155**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Maize cultivation for different size groups are given in table T.2.2.The total cost of cultivation (Cost C2) per hectare of Maize amounted to an average of ₹ 54155 at State level. On an average, Cost A1 was ₹ 33125, which was highest on large farms (₹ 37835) and lowest on small farms (₹ 24580). Here, the table clearly indicated high investment by large farms in cultivation of Maize per hectare compared to other farms categories.

Table T.2.2 Different cost concepts basis on different size holdings of Maize (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	37835	29125	24580	33125
Cost A_2	37835	29125	24580	33125
Cost B_1	44863	34536	29146	39279
Cost B_2	56619	44424	36925	49855
Cost C_1	48414	39623	34490	43579
Cost C_2	60170	49511	42269	54155
Cost C_3	66187	54462	46496	59571

Income measures

A comparison of various income measures from Maize cultivation are given in table T.2.3.

Table T.2.3 Returns from cultivation of Maize on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	32832	30304	22178	30447
Farm Business Income	32832	30304	22178	30447
Family Labour Income	14047	15006	9833	13717
Net Income	10497	9919	4489	9417
Returns to Management	4480	4968	262	4002
Benefit Cost Ratio	1.17	1.20	1.11	1.17

Returns over variable cost varied between ₹ 22178 to ₹ 32832 as shown in the above table. The family labour income per hectare of Maize cultivation varied from ₹ 9833 in small farms to ₹ 15006 in medium farms. On an average, family labour income was worked out to be ₹ 13717 per hectare. The overall net income from Maize cultivation was ₹ 9147 per hectare, wherein net income of large farms was highest (₹ 10497) and lowest for small farms (₹ 4489). The overall returns to management from Maize cultivation was ₹ 4002 per hectare. Benefit cost ratio of medium farms was highest (1.20) followed by large farms (1.17) and small farms (1.11). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than large and small farms.

Cost of production per quintal

The cost of production of Maize across different land size categories is given in table T.2.4. On an average, ₹ 1258 was spent on producing a quintal of Maize on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1395) followed by large farms (₹ 1251) and medium farms (₹ 1224) per quintal. This indicates that in case of Maize production, medium farms were more efficient and had economies of scale on their farms as compared to small and large farms.

Table T.2.4 Cost of production of Maize on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	787	720	811	770
Cost A_2	787	720	811	770
Cost B_1	933	854	962	913
Cost B_2	1177	1098	1219	1158
Cost C_1	1007	980	1138	1013
Cost C_2	1251	1224	1395	1258
Cost C_3	1376	1346	1534	1384

***

3. Paddy

Cost structure

The table T.3.1 shows the breakup of the cost incurred by different size groups in various operations of Paddy cultivation. On an average, ₹ 62550 was spent on Paddy per hectare. Cost of cultivation of small farm category was highest, ₹ 85907 followed by medium farms (₹ 58377) and large farms (₹ 52850). Among the different components of cost of cultivation, contribution of human labour was highest (34.0 per cent) followed by Fertilizers (10.1 per cent) and Mechanical Power (9.2 per cent). Small farms had spent ₹ 34309 and ₹ 14242 on human labour and Manure & Fertilizers respectively, which was exponentially high compared to medium farms (₹ 18602 and ₹ 11725) and large farms category (₹ 16158 and ₹ 7991).

Table T.3.1 Item-wise break up of cost of cultivation/ha. of Paddy Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	12389	23.4	11635	19.9	17844	20.8	13297	21.3
Family	3769	7.1	6967	11.9	16464	19.2	7942	12.7
Bullock Pair	476	0.9	664	1.1	1179	1.4	712	1.1
Mechanical Power	5183	9.8	5512	9.4	7258	8.4	5785	9.2
Seed	2556	4.8	2472	4.2	3139	3.7	2651	4.2
Manure	2838	5.4	5456	9.3	5987	7.0	4631	7.4
Fertilizer	5154	9.8	6269	10.7	8255	9.6	6312	10.1
Irrigation Charges	367	0.7	683	1.2	732	0.9	580	0.9
Plant Protection Charges	1326	2.5	1107	1.9	1648	1.9	1307	2.1
Incidental charges	2310	4.4	2438	4.2	5587	6.5	3097	5.0
Repairs on Farm Implements	39	0.1	64	0.1	132	0.2	70	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1958	3.7	2178	3.7	3106	3.6	2307	3.7
Depreciation	385	0.7	428	0.7	611	0.7	454	0.7
Land Revenue and Other Taxes	26	0.0	29	0.0	41	0.0	31	0.0
Rental Value of Land	13216	25.0	11519	19.7	12562	14.6	12364	19.8
Interest on Fixed Capital	859	1.6	955	1.6	1362	1.6	1011	1.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**52850**	**100.0**	**58377**	**100.0**	**85907**	**100.0**	**62550**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Paddy cultivation for different size groups are given in table T.3.2. The total cost of cultivation (Cost C2) per hectare of Paddy amounted to an average of ₹ 62550 at State level. On an average, Cost A1 was ₹ 41233, which was highest on small farms (₹ 55519) and lowest on large farms (₹ 35006). Here, the table clearly indicates high investment of small farms in cultivation of Paddy per hectare compared to other farms categories.

Table T.3.2 Different cost concepts basis on different size holdings of Paddy (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	35006	38936	55519	41233
Cost A_2	35006	38936	55519	41233
Cost B_1	35865	39891	56881	42245
Cost B_2	49081	51410	69442	54609
Cost C_1	39634	46858	73345	50186
Cost C_2	52850	58377	85907	62550
Cost C_3	58135	64214	94497	68805

Income measures

A comparison of various income measures from Paddy cultivation are given in table T.3.3.

Table T.3.3 Returns from cultivation of Paddy on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	44444	30351	20099	33133
Farm Business Income	44444	30351	20099	33133
Family Labour Income	30369	17877	6175	19758
Net Income	26600	10910	-10289	11816
Returns to Management	21315	5072	-18880	5561
Benefit Cost Ratio	1.50	1.19	0.88	1.19

Returns over variable cost varied between ₹ 20099 to ₹ 44444 as shown in the above table. The family labour income per hectare of Paddy cultivation varied from ₹ 6175 in small farms to ₹ 30369 in large farms. On an average, family labour income was worked out to be ₹ 19758 per hectare. The overall net income from Paddy cultivation was ₹ 11816 per hectare, wherein net income of large farms was highest (₹ 26600) and non-beneficial for small farms with a loss of ₹ 10289. The overall returns to management from Paddy cultivation turned out to be ₹ 5561. Benefit cost ratio of large farms was highest (1.50) followed by medium farms (1.19) and small farms (0.88). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Paddy across different land size categories is given in table T.3.4. On an average, ₹ 1809 was spent on producing a quintal of Paddy on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 2645) followed by medium farms (₹ 1759) and large farms (₹ 1410) per quintal. This indicates that in case of Paddy production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.3.4 Cost of production of Paddy on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	934	1173	1709	1192
Cost A_2	934	1173	1709	1192
Cost B_1	957	1202	1751	1222
Cost B_2	1309	1549	2138	1579
Cost C_1	1057	1412	2258	1451
Cost C_2	1410	1759	2645	1809
Cost C_3	1551	1935	2909	1990

***

4. Jowar

Cost structure

The table T.4.1 shows the breakup of the cost incurred by different size groups in various operations of Jowar cultivation. On an average, ₹ 43365 was spent on Jowar per hectare. Cost of cultivation of small farm category was highest, ₹ 46035 followed by medium farms (₹ 45140) and large farms (₹ 41869). Among the different components of cost of cultivation, contribution of human labour was highest (24.3 per cent) followed by Mechanical Power (11.7 per cent) and Fertilizers (7.5 per cent). Small farms had spent ₹ 2754 on Incidental charges, which was high compared to medium farms (₹ 1876) and large farms category (₹ 1643).

Table T.4.1 Item-wise break up of cost of cultivation/ha. of Jowar Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	8347	19.9	9613	21.3	8296	18.0	8760	20.2
Family	1399	3.3	2718	6.0	967	2.1	1792	4.1
Bullock Pair	2683	6.4	2820	6.2	5241	11.4	2983	6.9
Mechanical Power	5332	12.7	4785	10.6	4686	10.2	5087	11.7
Seed	2161	5.2	2288	5.1	2291	5.0	2216	5.1
Manure	951	2.3	1350	3.0	1310	2.8	1118	2.6
Fertilizer	3222	7.7	3185	7.1	3609	7.8	3248	7.5
Irrigation Charges	239	0.6	564	1.2	617	1.3	384	0.9
Plant Protection Charges	372	0.9	158	0.4	182	0.4	283	0.7
Incidental charges	1643	3.9	1876	4.2	2754	6.0	1831	4.2
Repairs on Farm Implements	14	0.0	33	0.1	58	0.1	25	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1498	3.6	1600	3.5	1743	3.8	1556	3.6
Depreciation	1272	3.0	1359	3.0	1480	3.2	1321	3.0
Land Revenue and Other Taxes	14	0.0	15	0.0	17	0.0	15	0.0
Rental Value of Land	9774	23.3	9626	21.3	9354	20.3	9683	22.3
Interest on Fixed Capital	2948	7.0	3149	7.0	3429	7.4	3062	7.1
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**41869**	**100.0**	**45140**	**100.0**	**46035**	**100.0**	**43365**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Jowar cultivation for different size groups are given in table T.4.2. The total cost of cultivation (Cost C2) per hectare of Jowar amounted to an average of ₹ 43365 at State level. On an average, Cost A1 was ₹ 28828, which was highest on small farms (₹ 32284) and lowest on large farms (₹ 27748). Here, the table clearly indicates small farms invests high amount of money in cultivation of Jowar per hectare compared to other farms categories.

Table T.4.2 Different cost concepts basis on different size holdings of Jowar (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	27748	29646	32284	28828
Cost A_2	27748	29646	32284	28828
Cost B_1	30696	32796	35713	31890
Cost B_2	40470	42421	45067	41573
Cost C_1	32095	35514	36681	33682
Cost C_2	41869	45140	46035	43365
Cost C_3	46056	49654	50638	47701

Income measures

A comparison of various income measures from Jowar cultivation are given in table T.4.3.

Table T.4.3 Returns from cultivation of Jowar on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	30983	28202	23942	29362
Farm Business Income	30983	28202	23942	29362
Family Labour Income	18261	15427	11159	16617
Net Income	16862	12709	10191	14825
Returns to Management	12675	8195	5588	10488
Benefit Cost Ratio	1.40	1.28	1.22	1.34

Returns over variable cost varied between ₹ 23492 to ₹ 30983 as shown in the above table. The family labour income per hectare of Jowar cultivation varied from ₹ 11159 in small farms to ₹ 18261 in large farms. On an average, family labour income was worked out to be ₹ 16617 per hectare. The overall net income from Jowar cultivation was ₹ 14825 per hectare, wherein net income of large farms was highest (₹ 16862) and lowest for small farms (₹ 10191). The overall returns to management from Jowar cultivation turned out to be ₹ 10488. Benefit cost ratio of large farms was highest (1.40) followed by medium farms (1.28) and small farms (1.22). Overall, it indicated the cultivation of Jowar to be profitable for different size of farms, out of which large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Jowar across different land size categories is given in table T.4.4. On an average, ₹ 2018 was spent on producing a quintal of Jowar on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 2731) followed by medium farms (₹ 2226) and large farms (₹ 1820) per quintal. This indicates that in case of Jowar production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.4.4 Cost of production of Jowar on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1206	1462	1915	1341
Cost A_2	1206	1462	1915	1341
Cost B_1	1334	1618	2119	1484
Cost B_2	1759	2092	2674	1934
Cost C_1	1395	1752	2176	1567
Cost C_2	1820	2226	2731	2018
Cost C_3	2002	2449	3004	2220

***

5. Ragi

Cost structure

The table T.5.1. shows the breakup of the cost incurred by different size groups in various operations of Ragi cultivation. On an average, ₹ 27426 was spent on Ragi per hectare. Cost of cultivation of small farm category was highest, ₹ 34494 followed by medium farms (₹ 26987) and large farms (₹ 19202). Among the different components of cost of cultivation, contribution of human labour was highest (40.4 per cent) followed by Mechanical Power (8.4 per cent). Small farms had spent ₹ 13682 and ₹ 4904 on human labour and Manure & Fertilizers respectively, which was immensely high compared to medium farms (₹ 10478 and ₹ 3504) and large farms category (₹ 8764 and ₹ 1691). In case of Mechanical Power, small farms had spent approximately 5 times higher (₹ 3762) compared to large farms (₹ 729).

Table T.5.1 Item-wise break up of cost of cultivation/ha. of Ragi Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	1677	8.7	3459	12.8	5800	16.8	3757	13.7
Family	7087	36.9	7019	26.0	7882	22.9	7309	26.7
Bullock Pair	1813	9.4	1112	4.1	770	2.2	1178	4.3
Mechanical Power	729	3.8	2149	8.0	3762	10.9	2306	8.4
Seed	517	2.7	850	3.2	645	1.9	703	2.6
Manure	1000	5.2	1692	6.3	1864	5.4	1574	5.7
Fertilizer	691	3.6	1812	6.7	3040	8.8	1922	7.0
Irrigation Charges	117	0.6	1001	3.7	1468	4.3	929	3.4
Plant Protection Charges	104	0.5	794	2.9	0	0.0	371	1.4
Incidental charges	1013	5.3	1096	4.1	3133	9.1	1720	6.3
Repairs on Farm Implements	8	0.0	45	0.2	87	0.3	49	0.2
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	460	2.4	841	3.1	1234	3.6	871	3.2
Depreciation	34	0.2	62	0.2	91	0.3	64	0.2
Land Revenue and Other Taxes	7	0.0	12	0.0	18	0.1	13	0.0
Rental Value of Land	3877	20.2	4916	18.2	4517	13.1	4532	16.5
Interest on Fixed Capital	68	0.4	124	0.5	183	0.5	129	0.5
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**19202**	**100.0**	**26987**	**100.0**	**34494**	**100.0**	**27426**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Ragi cultivation for different size groups are given in table T.5.2. Cost of cultivation right from Cost A1 to Cost C3 of small farms is highest compared to other farms categories. The total cost of cultivation (Cost C2) per hectare of Ragi amounted to an average of ₹ 27426 at State level. Here, the table visibly specifies high investment by small farms whereas least investment done by large farms in cultivation of Ragi per hectare.

Table T.5.2 Different cost concepts basis on different size holdings of Ragi (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	8170	14927	21912	15457
Cost A_2	8170	14927	21912	15457
Cost B_1	8238	15051	22095	15585
Cost B_2	12115	19967	26612	20117
Cost C_1	15325	22070	29977	22894
Cost C_2	19202	26987	34494	27426
Cost C_3	21122	29686	37943	30169

Income measures

A comparison of various income measures from Ragi cultivation are given in table T.5.3.

Table T.5.3 Returns from cultivation of Ragi on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	15136	14646	5298	11810
Farm Business Income	15136	14646	5298	11810
Family Labour Income	11190	9606	599	7150
Net Income	4103	2586	-7283	-159
Returns to Management	2183	-112	-10733	-2902
Benefit Cost Ratio	1.21	1.10	0.79	0.99

Returns over variable cost varied between ₹ 5298 to ₹ 15136 as shown in the above table. The family labour income per hectare of Ragi cultivation varied from ₹ 599 in small farms to ₹ 11190 in large farms. On an average, family labour income was worked out to be ₹ 7150 per hectare. The overall net income from Ragi cultivation turned out to be non-beneficial with a loss of ₹ 159 per hectare, wherein net income of large farms was highest (₹ 4103) and for small farms with a significant loss of ₹ 7283. The overall returns to management from Ragi cultivation also turned out to be unprofitable. Benefit cost ratio of large farms was highest (1.21) followed by medium farms (1.10) and small farms (0.79). In general, it indicated that even though large farms had great income returns from Ragi cultivation but on an average the cultivation of Ragi turned out to be not so economically viable mainly due to huge cost of cultivation incurred by small farms.

Cost of production per quintal

The cost of production of Ragi across different land size categories is given in table T.5.4. On an average, ₹ 3340 was spent on producing a quintal of Ragi on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 4051) followed by medium farms (₹ 3172) and large farms (₹ 2628) per quintal. This indicates that in case of Ragi production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.5.4 Cost of production of Ragi on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1118	1755	2573	1882
Cost A_2	1118	1755	2573	1882
Cost B_1	1128	1769	2595	1898
Cost B_2	1658	2347	3125	2450
Cost C_1	2098	2594	3520	2788
Cost C_2	2628	3172	4051	3340
Cost C_3	2891	3490	4456	3674

***

6. Wheat

Cost structure

The table T.6.1 shows the breakup of the cost incurred by different size groups in various operations of Wheat cultivation. On an average, ₹ 44025 was spent on Wheat per hectare. Cost of cultivation of small farm category was highest, ₹ 48636 followed by medium farms (₹ 45859) and large farms (₹ 40683). Among the different components of cost of cultivation, contribution of human labour was highest (19.1 per cent) followed by Mechanical Power (16.4 per cent) and Fertilizers (9.6 per cent). Small farms had spent ₹ 9104 on Mechanical Power, which was considerably high compared to medium farms (₹ 7867) and large farms category (₹ 5924).

Table T.6.1 Item-wise break up of cost of cultivation/ha. of Wheat Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	3439	8.5	3895	8.5	3339	6.9	3595	8.2
Family	3699	9.1	5621	12.3	5914	12.2	4812	10.9
Bullock Pair	22	0.1	176	0.4	28	0.1	81	0.2
Mechanical Power	5924	14.6	7867	17.2	9104	18.7	7212	16.4
Seed	3825	9.4	4056	8.8	4740	9.7	4071	9.2
Manure	401	1.0	565	1.2	753	1.5	524	1.2
Fertilizer	4958	12.2	3566	7.8	3675	7.6	4207	9.6
Irrigation Charges	2117	5.2	1747	3.8	2608	5.4	2062	4.7
Plant Protection Charges	1597	3.9	1877	4.1	1679	3.5	1717	3.9
Incidental charges	552	1.4	1036	2.3	1752	3.6	944	2.1
Repairs on Farm Implements	16	0.0	49	0.1	86	0.2	41	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1371	3.4	1490	3.2	1666	3.4	1467	3.3
Depreciation	622	1.5	676	1.5	756	1.6	666	1.5
Land Revenue and Other Taxes	17	0.0	18	0.0	21	0.0	18	0.0
Rental Value of Land	10416	25.6	11365	24.8	10440	21.5	10780	24.5
Interest on Fixed Capital	1708	4.2	1856	4.0	2075	4.3	1827	4.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**40683**	**100.0**	**45859**	**100.0**	**48636**	**100.0**	**44025**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Wheat cultivation for different size groups are given in table T.6.2. The total cost of cultivation (Cost C2) per hectare of Wheat amounted to an average of ₹ 44025 at State level. On an average, Cost A1 was ₹ 26606, which was highest on small farms (₹ 30206) and lowest on large farms (₹ 24861). Here, the table depicts small farms investment was highest compared to other farms categories in cultivation of Wheat per hectare.

Table T.6.2 Different cost concepts basis on different size holdings of Wheat (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	24861	27018	30206	26606
Cost A_2	24861	27018	30206	26606
Cost B_1	26569	28873	32281	28433
Cost B_2	36984	40238	42721	39213
Cost C_1	30268	34494	38195	33245
Cost C_2	40683	45859	48636	44025
Cost C_3	44752	50445	53499	48428

Income measures

A comparison of various income measures from Wheat cultivation are given in table T.6.3.

Table T.6.3 Returns from cultivation of Wheat on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	37734	41282	32559	38183
Farm Business Income	37734	41282	32559	38183
Family Labour Income	25611	28062	20044	25576
Net Income	21912	22441	14130	20764
Returns to Management	17844	17855	9266	16361
Benefit Cost Ratio	1.54	1.49	1.29	1.47

Returns over variable cost varied between ₹ 32559 to ₹ 41282 as shown in the above table. The family labour income per hectare of Wheat cultivation varied from ₹ 20044 in small farms to ₹ 28062 in medium farms. On an average, family labour income was worked out to be ₹ 25576 per hectare. The overall net income from Wheat cultivation was ₹ 20764 per hectare, wherein net income of medium farms was highest (₹ 22441) and lowest for small farms (₹ 14130). The overall returns to management from Wheat cultivation was ₹ 16361. Benefit cost ratio of large farms was highest (1.54) followed by medium farms (1.49) and small farms (1.29). Hence, it indicated that with the benefit cost ratio of 1.47, the cultivation of Wheat per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Wheat across different land size categories is given in table T.6.4. On an average, ₹ 1471 was spent on producing a quintal of Wheat on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1719) followed by medium farms (₹ 1514) and large farms (₹ 1345) per quintal indicating large farms being efficient and having economies of scale on their farms as compared to small and medium farms.

Table T.6.4 Cost of production of Wheat on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	822	892	1067	889
Cost A_2	822	892	1067	889
Cost B_1	879	953	1141	950
Cost B_2	1223	1328	1510	1310
Cost C_1	1001	1139	1350	1111
Cost C_2	1345	1514	1719	1471
Cost C_3	1480	1665	1891	1618

***

7. Tur

Cost structure

The table T.7.1 shows the breakup of the cost incurred by different size groups in various operations of Tur cultivation. On an average, ₹ 55856 was spent on Tur per hectare. Cost of cultivation of large farm category was highest, ₹ 56558 followed by small farms (₹ 55814) and medium farms (₹ 54228). Among the different components of cost of cultivation, contribution of human labour was highest (22.1 per cent) followed by Mechanical Power (11.5 per cent) and Fertilizers (6.9 per cent). Small farms had spent ₹ 13824 and ₹ 6780 on human labour and Mechanical Power respectively, which was high compared to large farms (₹ 12278 and ₹ 6430) and medium farms category (₹ 12008 and ₹ 6302).

Table T.7.1 Item-wise break up of cost of cultivation/ha. of Tur Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	10292	18.2	9087	16.8	11291	20.2	10035	18.0
Family	1986	3.5	2921	5.4	2534	4.5	2287	4.1
Bullock Pair	1474	2.6	774	1.4	991	1.8	1243	2.2
Mechanical Power	6430	11.4	6302	11.6	6780	12.1	6421	11.5
Seed	2222	3.9	1857	3.4	1774	3.2	2087	3.7
Manure	2379	4.2	3130	5.8	3022	5.4	2636	4.7
Fertilizer	3962	7.0	3705	6.8	3622	6.5	3865	6.9
Irrigation Charges	612	1.1	530	1.0	605	1.1	589	1.1
Plant Protection Charges	3526	6.2	3700	6.8	2912	5.2	3527	6.3
Incidental charges	2681	4.7	2023	3.7	1903	3.4	2439	4.4
Repairs on Farm Implements	54	0.1	87	0.2	155	0.3	71	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	2018	3.6	1872	3.5	1983	3.6	1975	3.5
Depreciation	1308	2.3	1213	2.2	1286	2.3	1280	2.3
Land Revenue and Other Taxes	22	0.0	21	0.0	22	0.0	22	0.0
Rental Value of Land	14127	25.0	13793	25.4	13530	24.2	13988	25.0
Interest on Fixed Capital	3464	6.1	3213	5.9	3404	6.1	3390	6.1
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**56558**	**100.0**	**54228**	**100.0**	**55814**	**100.0**	**55856**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Tur cultivation for different size groups are given in table T.7.2. On an average, Cost A1 was ₹ 36191, which was highest on large farms (₹ 36981) and lowest on medium farms (₹ 34302). The total cost of cultivation (Cost C2) per hectare of Tur amounted to an average of ₹ 55856 at State level. Here, the table describes investment of large farms slightly higher compared to other farms categories in cultivation of Tur per hectare.

Table T.7.2 Different cost concepts basis on different size holdings of Tur (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	36981	34302	36346	36191
Cost A_2	36981	34302	36346	36191
Cost B_1	40445	37514	39750	39580
Cost B_2	54572	51307	53280	53569
Cost C_1	42431	40435	42284	41867
Cost C_2	56558	54228	55814	55856
Cost C_3	62213	59651	61395	61441

Income measures

A comparison of various income measures from Tur cultivation are given in table T.7.3.

Table T.7.3 Returns from cultivation of Tur on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	47912	48578	44964	47871
Farm Business Income	47912	48578	44964	47871
Family Labour Income	30322	31573	28030	30492
Net Income	28336	28652	25496	28206
Returns to Management	22680	23229	19915	22620
Benefit Cost Ratio	1.50	1.53	1.46	1.50

Returns over variable cost varied between ₹ 44964 to ₹ 48578 as shown in the above table. The family labour income per hectare of Tur cultivation varied from ₹ 28030 in small farms to ₹ 31573 in medium farms. On an average, family labour income was worked out to be ₹ 30492 per hectare. The overall net income from Tur cultivation was ₹ 28206 per hectare, wherein net income of medium farms was highest (₹ 28652) and lowest for small farms (₹ 25496). The overall returns to management from Tur cultivation was ₹ 22620. Benefit cost ratio of medium farms was highest (1.53) followed by large farms (1.50) and small farms (1.46). Hence, it indicated that with the benefit cost ratio of 1.50, the cultivation of Tur per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Tur across different land size categories is given in table T.7.4. On an average, ₹ 3145 was spent on producing a quintal of Tur on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 3374) followed by large farms (₹ 3132) and medium farms (₹ 3116) per quintal. This indicates that in case of Tur production, medium farms were more efficient and had economies of scale on their farms as compared to small and large farms.

Table T.7.4 Cost of production of Tur on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2048	1971	2197	2038
Cost A_2	2048	1971	2197	2038
Cost B_1	2240	2156	2403	2229
Cost B_2	3022	2948	3221	3016
Cost C_1	2350	2324	2556	2357
Cost C_2	3132	3116	3374	3145
Cost C_3	3445	3428	3711	3459

***

8. Moong

Cost structure

The table T.8.1 shows the breakup of the cost incurred by different size groups in various operations of Moong cultivation. On an average, ₹ 43584 was spent on Moong per hectare. Cost of cultivation of small farm category was highest, ₹ 66201 followed by medium farms (₹ 45742) and large farms (₹ 40282). Among the different components of cost of cultivation, contribution of human labour was highest (20.2 per cent) followed by Mechanical Power (14.1 per cent). Small farms had spent ₹ 14927 and ₹ 14559 on human labour and Manure & Fertilizers respectively, which was exponentially high compared to medium farms (₹ 9230 and ₹ 5322) and large farms category (₹ 8072 and ₹ 4868).

Table T.8.1 Item-wise break up of cost of cultivation/ha. of Moong Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	5939	14.7	5935	13.0	13918	21.0	6251	14.3
Family	2133	5.3	3294	7.2	1010	1.5	2574	5.9
Bullock Pair	1136	2.8	376	0.8	1192	1.8	821	1.9
Mechanical Power	4979	12.4	7915	17.3	3775	5.7	6159	14.1
Seed	1735	4.3	1686	3.7	1760	2.7	1715	3.9
Manure	1924	4.8	3011	6.6	7865	11.9	2612	6.0
Fertilizer	2944	7.3	2311	5.1	6694	10.1	2827	6.5
Irrigation Charges	176	0.4	203	0.4	192	0.3	188	0.4
Plant Protection Charges	1163	2.9	1754	3.8	255	0.4	1374	3.2
Incidental charges	2012	5.0	1732	3.8	2850	4.3	1928	4.4
Repairs on Farm Implements	25	0.1	46	0.1	100	0.2	37	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1322	3.3	1498	3.3	2316	3.5	1435	3.3
Depreciation	2137	5.3	2422	5.3	3743	5.7	2319	5.3
Land Revenue and Other Taxes	22	0.1	25	0.1	39	0.1	24	0.1
Rental Value of Land	8687	21.6	9060	19.8	13577	20.5	9036	20.7
Interest on Fixed Capital	3947	9.8	4473	9.8	6915	10.4	4284	9.8
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**40282**	**100.0**	**45742**	**100.0**	**66201**	**100.0**	**43584**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Moong cultivation for different size groups are given in table T.8.2. Cost of cultivation right from Cost A1 to Cost C3 of small farms is highest compared to other farms categories. The total cost of cultivation (Cost C2) per hectare of Moong amounted to an average of ₹ 43584 at State level. Here, the table visibly specifies huge investment by small farms whereas least investment done by large farms in cultivation of Moong per hectare.

Table T.8.2 Different cost concepts basis on different size holdings of Moong (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	25514	28915	44699	27690
Cost A_2	25514	28915	44699	27690
Cost B_1	29461	33388	51613	31974
Cost B_2	38148	42448	65191	41010
Cost C_1	31594	36682	52623	34548
Cost C_2	40282	45742	66201	43584
Cost C_3	44310	50317	72821	47942

Income measures

A comparison of various income measures from Moong cultivation are given in table T.8.3.

Table T.8.3 Returns from cultivation of Moong on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	26744	25597	37001	26669
Farm Business Income	26744	25597	37001	26669
Family Labour Income	14110	12064	16509	13350
Net Income	11977	8770	15499	10775
Returns to Management	7949	4196	8879	6417
Benefit Cost Ratio	1.30	1.19	1.23	1.25

Returns over variable cost varied between ₹ 25597 to ₹ 37001 as shown in the above table. The family labour income per hectare of Moong cultivation varied from ₹ 12064 in medium farms to ₹ 16509 in small farms. On an average, family labour income was worked out to be ₹ 13350 per hectare. The overall net income from Moong cultivation was ₹ 10775 per hectare, wherein net income of small farms was highest (₹ 15499) and lowest for medium farms (₹ 8770). The overall returns to management from Moong cultivation was ₹ 6417. Benefit cost ratio of large farms was highest (1.30) followed by small farms (1.23) and medium farms (1.19). Overall, it indicated that large farms were more efficient than small and medium farms.

Cost of production per quintal

The cost of production of Moong across different land size categories is given in table T.8.4. On an average, ₹ 3948 was spent on producing a quintal of Moong on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 4317) followed by large farms (₹ 3946) and medium farms (₹ 3904) per quintal. This indicates that in case of Moong production, medium farms were efficient and had economies of scale on their farms as compared to small and large farms.

Table T.8.4 Cost of production of Moong on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2499	2468	2915	2508
Cost A_2	2499	2468	2915	2508
Cost B_1	2886	2850	3365	2896
Cost B_2	3737	3623	4251	3715
Cost C_1	3095	3131	3431	3129
Cost C_2	3946	3904	4317	3948
Cost C_3	4341	4295	4748	4343

***

9. Udid

Cost structure

The table T.9.1 shows the breakup of the cost incurred by different size groups in various operations of Udid cultivation. On an average, ₹ 38257 was spent on Udid per hectare. Cost of cultivation of small farm category was highest, ₹ 63744 followed by medium farms (₹ 38886) and large farms (₹ 32511). Among the different components of cost of cultivation, contribution of human labour was highest (23.1 per cent) followed by Mechanical Power (11.2 per cent) and Manure (7.4 per cent). Small farms had spent ₹ 22403 and ₹ 7014 on human labour and Manure & Fertilizers respectively, which was exponentially high compared to medium farms (₹ 8309 and ₹ 5789) and large farms category (₹ 6389 and ₹ 4134).

Table T.9.1 Item-wise break up of cost of cultivation/ha. of Udid Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	3935	12.1	5199	13.4	18137	28.5	5936	15.5
Family	2454	7.5	3109	8.0	4266	6.7	2894	7.6
Bullock Pair	104	0.3	274	0.7	309	0.5	190	0.5
Mechanical Power	3983	12.3	4445	11.4	5193	8.1	4286	11.2
Seed	1457	4.5	1530	3.9	2762	4.3	1625	4.2
Manure	2236	6.9	3468	8.9	3476	5.5	2831	7.4
Fertilizer	1898	5.8	2320	6.0	3538	5.6	2233	5.8
Irrigation Charges	739	2.3	116	0.3	9	0.0	427	1.1
Plant Protection Charges	480	1.5	757	1.9	284	0.4	563	1.5
Incidental charges	2598	8.0	1577	4.1	3645	5.7	2329	6.1
Repairs on Farm Implements	15	0.0	34	0.1	130	0.2	34	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1047	3.2	1183	3.0	2249	3.5	1227	3.2
Depreciation	1830	5.6	2069	5.3	3932	6.2	2145	5.6
Land Revenue and Other Taxes	18	0.1	20	0.1	38	0.1	21	0.1
Rental Value of Land	7499	23.1	10277	26.4	11009	17.3	8916	23.3
Interest on Fixed Capital	2219	6.8	2508	6.4	4767	7.5	2601	6.8
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**32511**	**100.0**	**38886**	**100.0**	**63744**	**100.0**	**38257**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Udid cultivation for different size groups are given in table T.9.2. The table shows that total cost of cultivation (Cost C2) per hectare of Udid amounted to ₹ 32511, ₹38886 and ₹ 63744 on large, medium and small farms respectively with an average of ₹ 38257 at State level. Apparently, Cost A1 to Cost C3 are highest for small farms and lowest in large farms. Inverse relationship was observed between cost incurred on different size farms.

Table T.9.2 Different cost concepts basis on different size holdings of Udid (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	20339	22991	43702	23845
Cost A_2	20339	22991	43702	23845
Cost B_1	22558	25500	48469	26446
Cost B_2	30057	35777	59478	35363
Cost C_1	25012	28609	52735	29340
Cost C_2	32511	38886	63744	38257
Cost C_3	35762	42775	70118	42082

Income measures

A comparison of various income measures from Udid cultivation are given in table T.9.3.

Table T.9.3 Returns from cultivation of Udid on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	24763	38793	22582	29777
Farm Business Income	24763	38793	22582	29777
Family Labour Income	15045	26007	6805	18260
Net Income	12591	22898	2540	15366
Returns to Management	9340	19009	-3834	11540
Benefit Cost Ratio	1.39	1.59	1.04	1.40

Returns over variable cost varied between ₹ 22582 to ₹ 38793 as shown in the above table. The family labour income per hectare of Udid cultivation varied from ₹ 6805 in small farms to ₹ 26007 in medium farms. On an average, family labour income was worked out to be ₹ 18260 per hectare. The overall net income from Udid cultivation was ₹ 15366 per hectare, wherein net income of medium farms was highest (₹ 22898) and lowest for small farms (₹ 2540). The overall returns to management from Udid cultivation was ₹ 11540. Benefit cost ratio of medium farms was highest (1.59) followed by large farms (1.39) and small farms (1.04). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than large and small farms.

Cost of production per quintal

The cost of production of Udid across different land size categories is given in table T.9.4. On an average, ₹ 3336 was spent on producing a quintal of Udid on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 5040) followed by large farms (₹ 3389) and medium farms (₹ 2833) per quintal. This indicated that in case of Udid production, medium farms were more efficient and had economies of scale on their farms as compared to large and small farms.

Table T.9.4 Cost of production of Udid on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2120	1675	3455	2079
Cost A_2	2120	1675	3455	2079
Cost B_1	2352	1858	3832	2306
Cost B_2	3134	2607	4703	3084
Cost C_1	2608	2084	4170	2559
Cost C_2	3389	2833	5040	3336
Cost C_3	3728	3116	5544	3670

***

10. Gram

Cost structure

The breakup of the cost incurred by different size groups in various operations of Gram cultivation is given in table T.10.1. On an average, ₹ 54,170 was spent on Gram per hectare. Cost of cultivation of small farm category was highest, ₹ 66,177 followed by medium farms (₹ 56,586) and large farms (₹ 48,048). Among the different components of cost of cultivation, contribution of human labour was high (22.0 per cent) followed by Mechanical Power (12.1 per cent) and Seed (10.6 per cent). Small farms had spent highest in cultivating Gram per hectare in all other components except for Seed and Manure.

Table T.10.1 Item-wise break up of cost of cultivation/ha. of Gram Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	6246	13.0	6970	12.3	11099	16.8	7180	13.3
Family	4183	8.7	5046	8.9	5384	8.1	4723	8.7
Bullock Pair	64	0.1	311	0.5	542	0.8	235	0.4
Mechanical Power	5407	11.3	7378	13.0	7586	11.5	6569	12.1
Seed	5135	10.7	6308	11.1	5932	9.0	5764	10.6
Manure	880	1.8	1041	1.8	685	1.0	928	1.7
Fertilizer	3562	7.4	4282	7.6	4915	7.4	4056	7.5
Irrigation Charges	1390	2.9	1613	2.9	1945	2.9	1560	2.9
Plant Protection Charges	2322	4.8	2419	4.3	2676	4.0	2410	4.4
Incidental charges	1333	2.8	1700	3.0	3530	5.3	1774	3.3
Repairs on Farm Implements	31	0.1	45	0.1	89	0.1	44	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1582	3.3	1924	3.4	2340	3.5	1831	3.4
Depreciation	1755	3.7	2134	3.8	2595	3.9	2031	3.7
Land Revenue and Other Taxes	24	0.1	30	0.1	36	0.1	28	0.1
Rental Value of Land	10924	22.7	11481	20.3	12076	18.2	11319	20.9
Interest on Fixed Capital	3211	6.7	3905	6.9	4749	7.2	3717	6.9
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**48048**	**100.0**	**56586**	**100.0**	**66177**	**100.0**	**54170**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Gram cultivation for different size groups are given in table T.10.2. The table shows that total cost of cultivation (Cost C2) per hectare of Gram amounted to ₹ 48048, ₹ 56586 and ₹ 66177 on large, medium and small farms respectively with an average of ₹ 54170 at State level. Apparently, Cost A1 to Cost C3 are highest for small farms and lowest in large farms. Inverse relationship was observed between cost incurred on different size farms.

Table T.10.2 Different cost concepts basis on different size holdings of Gram (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	29730	36154	43968	34411
Cost A_2	29730	36154	43968	34411
Cost B_1	32942	40059	48717	38128
Cost B_2	43865	51540	60793	49447
Cost C_1	37124	45105	54102	42851
Cost C_2	48048	56586	66177	54170
Cost C_3	52853	62244	72795	59587

Income measures

A comparison of various income measures from Gram cultivation are given in table T.10.3.

Table T.10.3 Returns from cultivation of Gram on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	35958	32908	28703	33674
Farm Business Income	35958	32908	28703	33674
Family Labour Income	21823	17523	11878	18638
Net Income	17641	12477	6494	13915
Returns to Management	12836	6818	-124	8498
Benefit Cost Ratio	1.37	1.22	1.10	1.26

The table reveals that returns over variable cost varied between ₹ 28703 to ₹ 35958. The family labour income per hectare of Gram cultivation varied from ₹ 11878 in small farms to ₹ 21823 in large farms. On an average, family labour income was worked out to be ₹ 18638 per hectare. The overall net income from Gram cultivation was ₹ 13915 per hectare. The overall returns to management from Gram cultivation was ₹ 8498 per hectare. Benefit cost ratio of large farms was highest (1.37) followed by medium farms (1.22) and small farms (1.10). Overall, it indicated that Gram production in the sample area was economical viable and profitable. However, profitablity for small farms even at the high cost of cultivation was less compared to large and medium farms categories.

Cost of production per quintal

The cost of production of Gram across different land size categories is given in table T.10.4. It reveals that on an average, ₹ 3471 was spent on producing a quintal of Gram on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 4140) followed by medium farms (₹ 3586) and large farms (₹ 3137) per quintal. This indicated that large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.10.4 Cost of production of Gram on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1941	2291	2750	2205
Cost A_2	1941	2291	2750	2205
Cost B_1	2151	2539	3047	2443
Cost B_2	2864	3266	3803	3168
Cost C_1	2424	2859	3384	2745
Cost C_2	3137	3586	4140	3471
Cost C_3	3451	3945	4554	3818

***

11. Horsegram

Cost structure

The table T.11.1 shows the breakup of the cost incurred by different size groups in various operations of Horsegram cultivation. On an average, ₹ 48944 was spent on Horsegram per hectare. Cost of cultivation of small farm category was highest, ₹ 48996 followed by medium farms (₹ 48183). Sample for this crop was available in large farms during study. Among the different components of cost of cultivation, contribution of human labour and Mechanical Power (21.6 per cent) was highest followed by Fertilizers (13.1 per cent). In case of Mechanical Power, small farms had spent approximately 1.6 times higher (₹ 10856) compared to medium farms (₹ 6750).

Table T.11.1 Item-wise break up of cost of cultivation/ha. of Horsegram Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	--	--	1500	3.1	1997	4.1	1965	4.0
Family	--	--	8125	16.9	8652	17.7	8618	17.6
Bullock Pair	--	--	0	0.0	0	0.0	0	0.0
Mechanical Power	--	--	6750	14.0	10856	22.2	10591	21.6
Seed	--	--	1050	2.2	1030	2.1	1031	2.1
Manure	--	--	6250	13.0	3616	7.4	3785	7.7
Fertilizer	--	--	9375	19.5	6217	12.7	6421	13.1
Irrigation Charges	--	--	0	0.0	0	0.0	0	0.0
Plant Protection Charges	--	--	0	0.0	0	0.0	0	0.0
Incidental charges	--	--	2350	4.9	1882	3.8	1912	3.9
Repairs on Farm Implements	--	--	125	0.3	158	0.3	156	0.3
Insurance Premium	--	--	0	0.0	0	0.0	0	0.0
Rab Material	--	--	0	0.0	0	0.0	0	0.0
Interest on working Capital	--	--	1644	3.4	1545	3.2	1552	3.2
Depreciation	--	--	272	0.6	255	0.5	256	0.5
Land Revenue and Other Taxes	--	--	54	0.1	51	0.1	51	0.1
Rental Value of Land	--	--	10362	21.5	12430	25.4	12297	25.1
Interest on Fixed Capital	--	--	326	0.7	306	0.6	308	0.6
Amortization Cost	--	--	0	0.0	0	0.0	0	0.0
Total Cost	**--**	**--**	**48183**	**100.0**	**48996**	**100.0**	**48944**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Horsegram cultivation for different size groups are given in table T.11.2. The total cost of cultivation (Cost C2) per hectare of Horsegram amounted to an average of ₹ 48944 at State level. On an average, Cost A1 was ₹27721, which was highest on medium farms (₹ 29370) and lowest on large farms (₹ 27608). Here, the table clearly indicates small and medium farms had near about equal amount of investment in cultivation of Horsegram per hectare.

Table T.11.2 Different cost concepts basis on different size holdings of Horsegram (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	--	29370	27608	27721
Cost A_2	--	29370	27608	27721
Cost B_1	--	29696	27914	28029
Cost B_2	--	40058	40344	40326
Cost C_1	--	37821	36566	36647
Cost C_2	--	48183	48996	48944
Cost C_3	--	53002	53896	53838

Income measures

A comparison of various income measures from Horsegram cultivation are given in table T.11.3.

Table T.11.3 Returns from cultivation of Horsegram on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	--	33130	47281	46370
Farm Business Income	--	33130	47281	46370
Family Labour Income	--	22442	34545	33765
Net Income	--	14317	25893	25147
Returns to Management	--	9498	20993	20252
Benefit Cost Ratio	--	1.30	1.53	1.51

Returns over variable cost varied between ₹ 33130 to ₹ 47281 as shown in the above table. The family labour income per hectare of Horsegram cultivation varied from ₹ 22442 in medium farms to ₹ 34545 in small farms. On an average, family labour income was worked out to be ₹ 33765 per hectare. The overall net income from Horsegram cultivation was ₹ 25147 per hectare. The overall returns to management from Horsegram cultivation was ₹ 20252 per hectare profitable. Benefit cost ratio of small farms was highest (1.53) followed by medium farms (1.30). Hence, it indicated that with the benefit cost ratio of 1.51, the cultivation of Horsegram per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Horsegram across different land size categories is given in table T.11.4. On an average, ₹ 3285 was spent on producing a quintal of Horsegram on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 3855) followed by small farms (₹ 3252) per quintal. This indicated that in case of Horsegram production, small farms were more efficient and had economies of scale on their farms as compared to medium farms.

Table T.11.4 Cost of production of Horsegram on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	--	2350	1833	1860
Cost A_2	--	2350	1833	1860
Cost B_1	--	2376	1853	1881
Cost B_2	--	3205	2678	2706
Cost C_1	--	3026	2427	2459
Cost C_2	--	3855	3252	3285
Cost C_3	--	4240	3577	3613

***

12. Groundnut

Cost structure

The table T.12.1 shows the breakup of the cost incurred by different size groups in various operations of Groundnut cultivation. On an average, ₹ 80735 was spent on Groundnut per hectare. Cost of cultivation of small farm category was highest, ₹ 91521 followed by medium farms(₹ 84280) and large farms (₹ 71174). Among the different components of cost of cultivation, contribution of human labour was highest (29.2 per cent) followed by Seed (13.0 per cent). Large farms spent ₹ 11924 on manure and fertilizers, which was higher than that of medium farms (₹ 10240) and small farms category (₹ 8269).

Table T.12.1 Item-wise break up of cost of cultivation/ha. of Groundnut Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	12605	17.7	21347	25.3	20917	22.9	18185	22.5
Family	5199	7.3	5557	6.6	5508	6.0	5423	6.7
Bullock Pair	264	0.4	1304	1.5	3006	3.3	1194	1.5
Mechanical Power	4890	6.9	5211	6.2	6718	7.3	5326	6.6
Seed	11616	16.3	9871	11.7	9919	10.8	10496	13.0
Manure	6060	8.5	5010	5.9	4815	5.3	5352	6.6
Fertilizer	5864	8.2	5230	6.2	3454	3.8	5185	6.4
Irrigation Charges	1542	2.2	2189	2.6	3750	4.1	2197	2.7
Plant Protection Charges	995	1.4	1097	1.3	2590	2.8	1287	1.6
Incidental charges	1860	2.6	2525	3.0	3294	3.6	2406	3.0
Repairs on Farm Implements	84	0.1	69	0.1	126	0.1	83	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	2747	3.9	3231	3.8	3515	3.8	3103	3.8
Depreciation	1161	1.6	1366	1.6	1486	1.6	1312	1.6
Land Revenue and Other Taxes	35	0.0	41	0.0	44	0.0	39	0.0
Rental Value of Land	13983	19.6	17563	20.8	19475	21.3	16585	20.5
Interest on Fixed Capital	2268	3.2	2668	3.2	2903	3.2	2562	3.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**71174**	**100.0**	**84280**	**100.0**	**91521**	**100.0**	**80735**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Groundnut cultivation for different size groups are given in table T.12.2.On an average, Cost A1 was ₹ 56166, which was highest on small farms (₹ 63635) and lowest on large farms (₹ 49724). The total cost of cultivation (Cost C2) per hectare of Groundnut amounted to an average of ₹ 80735 at State level. Clearly, the table showed small farms investing high amount of money in cultivation of Groundnut per hectare amongst other farms categories thus indicating inverse relationship between cost incurred on different size farms.

Table T.12.2 Different cost concepts basis on different size holdings of Groundnut (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	49724	58492	63635	56166
Cost A_2	49724	58492	63635	56166
Cost B_1	51992	61160	66538	58727
Cost B_2	65975	78723	86013	75312
Cost C_1	57191	66717	72046	64150
Cost C_2	71174	84280	91521	80735
Cost C_3	78291	92708	100673	88809

Income measures

A comparison of various income measures from Groundnut cultivation are given in table T.12.3.

Table T.12.3 Returns from cultivation of Groundnut on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	34383	47132	53483	43578
Farm Business Income	34383	47132	53483	43578
Family Labour Income	18132	26901	31105	24432
Net Income	12933	21343	25597	19009
Returns to Management	5816	12915	16445	10936
Benefit Cost Ratio	1.18	1.25	1.28	1.24

The table reveals that returns over variable cost varied between ₹ 34383 to ₹ 53483. The family labour income per hectare of Groundnut cultivation varied from ₹ 18132 in large farms to ₹ 31105 in small farms. On an average, family labour income was worked out to be ₹ 24432 per hectare. The overall net income from Groundnut cultivation was ₹ 19009 per hectare. The overall returns to management from Groundnut cultivation was ₹ 10936 per hectare. Benefit cost ratio of small farms was highest (1.28) followed by medium farms (1.25) and large farms (1.18). Overall, it indicated that small farms were more efficient than medium and large farms.

Cost of production per quintal

The cost of production of Groundnut across different land size categories is given in table T.12.4. On an average, ₹ 3543 was spent on producing a quintal of Groundnut on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 3615) followed by small farms (₹ 3482) and large farms (₹ 3461) per quintal. This indicates that in case of Groundnut production, large farms had economies of scale on their farms as compared to medium and small farms.

Table T.12.4 Cost of production of Groundnut on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2418	2509	2421	2464
Cost A_2	2418	2509	2421	2464
Cost B_1	2528	2623	2532	2577
Cost B_2	3208	3377	3272	3305
Cost C_1	2781	2862	2741	2815
Cost C_2	3461	3615	3482	3543
Cost C_3	3807	3977	3830	3897

***

13. Soyabean

Cost structure

The table T.13.1 shows the breakup of the cost incurred by different size groups in various operations of Soyabean cultivation. On an average, ₹ 51194 was spent on Soyabean per hectare. Cost of cultivation of small farm category was highest, ₹ 60251 followed by medium farms (₹ 54441) and large farms (₹ 48193). Among the different components of cost of cultivation, contribution of human labour was highest (19.4 per cent) followed by Mechanical Power (12.5 per cent) and Seed (8.1 per cent). Small farms had spent ₹ 13334 and ₹ 10499 on human labour and Seed & Manure respectively, which was high compared to medium farms (₹ 10427 and ₹ 8093) and large farms category (₹ 9202 and ₹ 7025).

Table T.13.1 Item-wise break up of cost of cultivation/ha. of Soyabean Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	7922	16.4	7972	14.6	9710	16.1	8091	15.8
Family	1281	2.7	2456	4.5	3624	6.0	1852	3.6
Bullock Pair	1210	2.5	1434	2.6	1945	3.2	1344	2.6
Mechanical Power	6022	12.5	7046	12.9	6480	10.8	6383	12.5
Seed	4175	8.7	4069	7.5	4340	7.2	4156	8.1
Manure	2850	5.9	4024	7.4	6159	10.2	3504	6.8
Fertilizer	3194	6.6	3657	6.7	3620	6.0	3376	6.6
Irrigation Charges	447	0.9	350	0.6	751	1.2	442	0.9
Plant Protection Charges	2080	4.3	2003	3.7	2163	3.6	2063	4.0
Incidental charges	1800	3.7	2143	3.9	2004	3.3	1926	3.8
Repairs on Farm Implements	27	0.1	61	0.1	123	0.2	46	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1784	3.7	1965	3.6	2238	3.7	1880	3.7
Depreciation	1416	2.9	1560	2.9	1776	2.9	1492	2.9
Land Revenue and Other Taxes	17	0.0	19	0.0	22	0.0	18	0.0
Rental Value of Land	10877	22.6	12274	22.5	11416	18.9	11362	22.2
Interest on Fixed Capital	3093	6.4	3408	6.3	3880	6.4	3260	6.4
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**48193**	**100.0**	**54441**	**100.0**	**60251**	**100.0**	**51194**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Soyabean cultivation for different size groups are given in table T.13.2. The total cost of cultivation (Cost C2) per hectare of Soyabean amounted to an average of ₹ 51194 at State level. On an average, Cost A1 was ₹ 34721, which was highest on small farms (₹ 41331) and lowest on large farms (₹ 32943). Here, the table clearly depicts high investment by small farms in cultivation of Soyabean per hectare compared to other farms categories.

Table T.13.2 Different cost concepts basis on different size holdings of Soyabean (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	32943	36303	41331	34721
Cost A_2	32943	36303	41331	34721
Cost B_1	36036	39711	45211	37980
Cost B_2	46913	51985	56627	49343
Cost C_1	37316	42167	48835	39832
Cost C_2	48193	54441	60251	51194
Cost C_3	53013	59885	66276	56314

Income measures

A comparison of various income measures from Soyabean cultivation are given in table T.13.3.

Table T.13.3 Returns from cultivation of Soyabean on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	32425	37454	27298	33564
Farm Business Income	32425	37454	27298	33564
Family Labour Income	18455	21772	12001	18942
Net Income	17174	19317	8377	17090
Returns to Management	12355	13872	2352	11971
Benefit Cost Ratio	1.36	1.35	1.14	1.33

Returns over variable cost varied between ₹ 27298 to ₹ 37454 as shown in the above table. The family labour income per hectare of Soyabean cultivation varied from ₹ 12001 in small farms to ₹ 21772 in medium farms. On an average, family labour income was worked out to be ₹ 18942 per hectare. The overall net income from Soyabean cultivation was ₹ 17090 per hectare, wherein net income of medium farms was highest (₹ 19317) and lowest for small farms (₹ 8377). The overall returns to management from Soyabean cultivation was ₹ 11971 per hectare. Benefit cost ratio of large farms was slightly highest (1.36) compared to medium farms (1.35) followed by small farms (1.14). Overall, it indicated that inspite of varied level of investment by different size of farms, large and medium farms proved to be efficient compared to small farms.

Cost of production per quintal

The cost of production of Soyabean across different land size categories is given in table T.13.4. On an average, ₹ 2541 was spent on producing a quintal of Soyabean on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 3019) followed by medium farms (₹ 2550) and large farms (₹ 2466) per quintal. This indicated that in case of Soyabean production, large farms had economies of scale on their farms as compared to small and medium farms.

Table T.13.4 Cost of production of Soyabean on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1685	1700	2071	1723
Cost A_2	1685	1700	2071	1723
Cost B_1	1844	1860	2265	1885
Cost B_2	2400	2435	2837	2449
Cost C_1	1909	1975	2447	1977
Cost C_2	2466	2550	3019	2541
Cost C_3	2712	2805	3320	2795

***

14. Cotton

Cost structure

The table T.14.1 shows the breakup of the cost incurred by different size groups in various operations of Cotton cultivation. On an average, ₹ 65424 was spent on Cotton per hectare. Cost of cultivation of small farm category was highest, ₹ 71170 followed by medium farms (₹ 68411) and large farms (₹ 63594). Among the different components of cost of cultivation, contribution of human labour was highest (24.1 per cent) followed by Seed (7.5 per cent) and Fertilizers (7.4 per cent). Small farms had spent ₹ 20288 on human labour which was considerably high compared to medium farms (₹ 17233) and large farms category (₹ 14702).

Table T.14.1 Item-wise break up of cost of cultivation/ha. of Cotton Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	11393	17.9	13642	19.9	16357	23.0	12350	18.9
Family	3309	5.2	3591	5.2	3931	5.5	3429	5.2
Bullock Pair	1390	2.2	1713	2.5	2648	3.7	1567	2.4
Mechanical Power	3929	6.2	4786	7.0	3466	4.9	4125	6.3
Seed	5283	8.3	4142	6.1	4169	5.9	4898	7.5
Manure	3292	5.2	3940	5.8	4240	6.0	3533	5.4
Fertilizer	4807	7.6	4970	7.3	4353	6.1	4818	7.4
Irrigation Charges	772	1.2	681	1.0	608	0.9	736	1.1
Plant Protection Charges	4033	6.3	4018	5.9	4069	5.7	4032	6.2
Incidental charges	2046	3.2	2016	2.9	2591	3.6	2077	3.2
Repairs on Farm Implements	42	0.1	59	0.1	59	0.1	48	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	2219	3.5	2398	3.5	2554	3.6	2291	3.5
Depreciation	1881	3.0	2032	3.0	2164	3.0	1941	3.0
Land Revenue and Other Taxes	30	0.0	32	0.0	34	0.0	31	0.0
Rental Value of Land	14456	22.7	15299	22.4	14506	20.4	14685	22.4
Interest on Fixed Capital	4712	7.4	5091	7.4	5422	7.6	4864	7.4
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**63594**	**100.0**	**68411**	**100.0**	**71170**	**100.0**	**65424**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Cotton cultivation for different size groups are given in table T.14.2. The table shows that total cost of cultivation (Cost C2) per hectare of Cotton amounted to ₹ 63594, ₹ 68411 and ₹ 71170 on large, medium and small farms respectively with an average of ₹ 65424 at State level. Apparently, Cost A1 to Cost C3 are highest for small farms and lowest in large farms. Inverse relationship was observed between cost incurred on different size farms.

Table T.14.2 Different cost concepts basis on different size holdings of Cotton (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	41117	44429	47312	42446
Cost A_2	41117	44429	47312	42446
Cost B_1	45829	49520	52734	47310
Cost B_2	60285	64819	67240	61995
Cost C_1	49138	53112	56665	50740
Cost C_2	63594	68411	71170	65424
Cost C_3	69953	75252	78287	71967

Income measures

A comparison of various income measures from Cotton cultivation are given in table T.14.3.

Table T.14.3 Returns from cultivation of Cotton on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	45795	47556	39928	45845
Farm Business Income	45795	47556	39928	45845
Family Labour Income	26627	27165	20000	26296
Net Income	23318	23574	16069	22867
Returns to Management	16959	16733	8952	16324
Benefit Cost Ratio	1.37	1.34	1.23	1.35

Returns over variable cost varied between ₹ 39928 to ₹ 47556 as shown in the above table. The family labour income per hectare of Cotton cultivation varied from ₹ 20000 in small farms to ₹ 27165 in medium farms. On an average, family labour income was worked out to be ₹ 26296 per hectare. The overall net income from Cotton cultivation was ₹ 22867 per hectare, wherein net income of medium farms was highest (₹ 23574) and lowest for small farms (₹ 16069). The overall returns to management from Cotton cultivation was ₹ 16324 per hectare. Benefit cost ratio of large farms was highest (1.37) followed by medium farms (1.34) and small farms (1.23). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Cotton across different land size categories is given in table T.14.4. On an average, ₹ 3535 was spent on producing a quintal of Cotton on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 4151) followed by medium farms (₹ 3635) and large farms (₹ 3432) per quintal. This indicates that in case of Cotton production, large farms had economies of scale on their farms as compared to small and medium farms.

Table T.14.4 Cost of production of Cotton on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2219	2361	2759	2293
Cost A_2	2219	2361	2759	2293
Cost B_1	2473	2632	3076	2556
Cost B_2	3253	3445	3922	3350
Cost C_1	2652	2822	3305	2742
Cost C_2	3432	3635	4151	3535
Cost C_3	3775	3999	4566	3888

***

15. Sugarcane

Cost structure

The table T.15.1 shows the breakup of the cost incurred by different size groups in various operations of Sugarcane cultivation. On an average, ₹ 146751 was spent on Sugarcane per hectare. Cost of cultivation of small farm category was highest, ₹ 161432 followed by medium farms (₹ 156094) and large farms (₹ 142043). Among the different components of cost of cultivation, contribution of human labour was highest (20.9 per cent) followed by Seed (13.4 per cent) and Fertilizers (11.0 per cent). Small farms had spent highest ₹ 27263 on Seed which was higher than that of medium farms (₹ 20189) and large farms category (₹ 18929).

Table T.15.1 Item-wise break up of cost of cultivation/ha. of Sugarcane Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	24178	17.0	23779	15.2	22593	14.0	23992	16.3
Family	5141	3.6	10158	6.5	9711	6.0	6704	4.6
Bullock Pair	1597	1.1	1287	0.8	2390	1.5	1554	1.1
Mechanical Power	13258	9.3	13692	8.8	11068	6.9	13264	9.0
Seed	18929	13.3	20189	12.9	27263	16.9	19683	13.4
Manure	11875	8.4	11731	7.5	13538	8.4	11920	8.1
Fertilizer	15262	10.7	18461	11.8	16680	10.3	16183	11.0
Irrigation Charges	1889	1.3	2321	1.5	2495	1.5	2034	1.4
Plant Protection Charges	3073	2.2	3686	2.4	4262	2.6	3296	2.2
Incidental charges	4580	3.2	4151	2.7	5041	3.1	4489	3.1
Repairs on Farm Implements	120	0.1	161	0.1	127	0.1	131	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5686	4.0	5967	3.8	6327	3.9	5793	3.9
Depreciation	515	0.4	540	0.3	573	0.4	524	0.4
Land Revenue and Other Taxes	77	0.1	81	0.1	86	0.1	79	0.1
Rental Value of Land	35092	24.7	39078	25.0	38418	23.8	36318	24.7
Interest on Fixed Capital	772	0.5	810	0.5	859	0.5	787	0.5
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**142043**	**100.0**	**156094**	**100.0**	**161432**	**100.0**	**146751**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Sugarcane cultivation for different size groups are given in table T.15.2. Right from Cost A1 to Cost C3, small farms had spent highest in cultivating Sugarcane per hectare amounting to total cost of cultivation (Cost C2) to an average of ₹ 146751 at State level.

Table T.15.2 Different cost concepts basis on different size holdings of Sugarcane (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	101038	106047	112444	102942
Cost A_2	101038	106047	112444	102942
Cost B_1	101810	106857	113303	103729
Cost B_2	136902	145936	151721	140047
Cost C_1	106952	117015	123014	110433
Cost C_2	142043	156094	161432	146751
Cost C_3	156247	171703	177575	161427

Income measures

A comparison of various income measures from Sugarcane cultivation are given in table T.15.3.

Table T.15.3 Returns from cultivation of Sugarcane on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	109974	128910	118578	115439
Farm Business Income	109974	128910	118578	115439
Family Labour Income	74111	89021	79301	78334
Net Income	68969	78863	69591	71630
Returns to Management	54765	63254	53447	56955
Benefit Cost Ratio	1.49	1.51	1.43	1.49

Returns over variable cost varied between ₹ 109974 to ₹ 128910 as shown in the above table. The family labour income per hectare of Sugarcane cultivation varied from ₹ 74111 in large farms to ₹ 89021 in medium farms. On an average, family labour income was worked out to be ₹ 78334 per hectare. The overall net income from Sugarcane cultivation was ₹ 71630 per hectare, wherein net income of medium farms was highest (₹ 78863) and lowest for large farms (₹ 68969). The overall returns to management from Sugarcane cultivation was ₹ 56955 per hectare. Benefit cost ratio of medium farms was highest (1.51) followed by large farms (1.49) and small farms (1.43). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than large and small farms.

Cost of production per quintal

The cost of production of Sugarcane across different land size categories is given in table T.15.4. On an average, ₹ 151 was spent on producing a quintal of Sugarcane on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 161) followed by large farms (₹ 152) and medium farms (₹ 146) per quintal. This indicates that in case of Sugarcane production, medium farms were more efficient and had economies of scale on their farms as compared to large and small farms.

Table T.15.4 Cost of production of Sugarcane on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	108	100	112	106
Cost A_2	108	100	112	106
Cost B_1	109	100	113	107
Cost B_2	146	137	152	144
Cost C_1	114	110	123	113
Cost C_2	152	146	161	151
Cost C_3	167	161	177	166

***

16. Ginger

Cost structure

The table T.16.1 shows the breakup of the cost incurred by different size groups in various operations of Ginger cultivation. On an average, ₹ 260065 was spent on Ginger per hectare. Cost of cultivation of large farm category was highest, ₹ 265969 followed by small farms (₹ 255970) and medium farms (₹ 253980). Among the different components of cost of cultivation, contribution of Seed was highest (31.3 per cent). Large farms had spent ₹ 55244 on human labour, which was exponentially high compared to small farms (₹ 46548) and medium farms category (₹ 33966).

Table T.16.1 Item-wise break up of cost of cultivation/ha. of Ginger Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	36908	13.9	13347	5.3	19196	7.5	25481	9.8
Family	18336	6.9	20620	8.1	27352	10.7	20112	7.7
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	13657	5.1	26916	10.6	20735	8.1	19823	7.6
Seed	81596	30.7	82633	32.5	74272	29.0	81357	31.3
Manure	9517	3.6	5882	2.3	10525	4.1	8097	3.1
Fertilizer	8039	3.0	6546	2.6	7117	2.8	7333	2.8
Irrigation Charges	1588	0.6	2523	1.0	2901	1.1	2098	0.8
Plant Protection Charges	9162	3.4	9740	3.8	11597	4.5	9625	3.7
Incidental charges	3806	1.4	2384	0.9	4286	1.7	3258	1.3
Repairs on Farm Implements	72	0.0	81	0.0	151	0.1	83	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	9861	3.7	9003	3.5	9047	3.5	9429	3.6
Depreciation	502	0.2	458	0.2	461	0.2	480	0.2
Land Revenue and Other Taxes	50	0.0	46	0.0	46	0.0	48	0.0
Rental Value of Land	70365	26.5	71510	28.2	65982	25.8	70440	27.1
Interest on Fixed Capital	2510	0.9	2292	0.9	2303	0.9	2400	0.9
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**265969**	**100.0**	**253980**	**100.0**	**255970**	**100.0**	**260065**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Ginger cultivation for different size groups are given in table T.16.2. The total cost of cultivation (Cost C2) per hectare of Ginger amounted to an average of ₹ 260065 at State level. On an average, Cost A1 was ₹ 167112, which was highest on large farms (₹ 174759) and lowest on medium farms (₹ 159559). Here, the table specifies high investment by large farms in cultivation of Ginger per hectare compared to other farms categories.

Table T.16.2 Different cost concepts basis on different size holdings of Ginger (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	174759	159559	160333	167112
Cost A_2	174759	159559	160333	167112
Cost B_1	177268	161850	162636	169512
Cost B_2	247633	233360	228618	239953
Cost C_1	195604	182470	189988	189624
Cost C_2	265969	253980	255970	260065
Cost C_3	292566	279378	281567	286071

Income measures

A comparison of various income measures from Ginger cultivation are given in table T.16.3.

Table T.16.3 Returns from cultivation of Ginger on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	247731	269778	235835	255817
Farm Business Income	247731	269778	235835	255817
Family Labour Income	174856	195976	167550	182976
Net Income	156520	175356	140198	162865
Returns to Management	129923	149958	114601	136858
Benefit Cost Ratio	1.59	1.69	1.55	1.63

Returns over variable cost varied between ₹ 235835 to ₹ 269778 as shown in the above table. The family labour income per hectare of Ginger cultivation varied from ₹ 167550 in small farms to ₹ 195976 in medium farms. On an average, family labour income was worked out to be ₹ 182976 per hectare. The overall net income from Ginger cultivation was ₹ 162865 per hectare, wherein net income of medium farms was highest (₹ 175356) and lowest for small farms (₹ 140198). The overall returns to management from Ginger cultivation was ₹ 136858 per hectare. Benefit cost ratio of medium farms was highest (1.69) followed by large farms (1.59) and small farms (1.55). Hence, it indicated that with the benefit cost ratio of 1.63, the cultivation of Ginger per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Ginger across different land size categories is given in table T.16.4. On an average, ₹ 1547 was spent on producing a quintal of Ginger on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1711) followed by medium farms (₹ 1553) and large farms (₹ 1516) per quintal. This indicates that in case of Ginger production, large farms had economies of scale on their farms as compared to small and medium farms.

Table T.16.4 Cost of production of Ginger on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	996	976	1072	994
Cost A_2	996	976	1072	994
Cost B_1	1011	990	1087	1008
Cost B_2	1412	1427	1528	1427
Cost C_1	1115	1116	1270	1128
Cost C_2	1516	1553	1711	1547
Cost C_3	1668	1708	1882	1702

***

17. Turmeric

Cost structure

The table T.17.1 shows the breakup of the cost incurred by different size groups in various operations of Turmeric cultivation. On an average, ₹ 237012 was spent on Turmeric per hectare. Cost of cultivation of medium farm category was highest, ₹ 298772 followed by small farms (₹ 292340) and large farms (₹ 215179). Among the different components of cost of cultivation, contribution of Seed was highest (37.1 per cent). Medium farms had spent ₹ 96738 on Seed, which was sizably high compared to small farms (₹ 88166) and medium farms category (₹ 85156).

Table T.17.1 Item-wise break up of cost of cultivation/ha. of Turmeric Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	26651	12.4	40716	13.6	33081	11.3	30095	12.7
Family	6032	2.8	10971	3.7	19502	6.7	7634	3.2
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	9988	4.6	15037	5.0	10248	3.5	11153	4.7
Seed	85156	39.6	96738	32.4	88166	30.2	87912	37.1
Manure	8370	3.9	14296	4.8	16059	5.5	9995	4.2
Fertilizer	8135	3.8	8214	2.7	7058	2.4	8115	3.4
Irrigation Charges	1226	0.6	2008	0.7	4118	1.4	1506	0.6
Plant Protection Charges	3135	1.5	9389	3.1	20006	6.8	5157	2.2
Incidental charges	4588	2.1	9028	3.0	8057	2.8	5726	2.4
Repairs on Farm Implements	23	0.0	47	0.0	180	0.1	34	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	8836	4.1	11728	3.9	11218	3.8	9582	4.0
Depreciation	450	0.2	597	0.2	571	0.2	488	0.2
Land Revenue and Other Taxes	45	0.0	60	0.0	57	0.0	49	0.0
Rental Value of Land	50294	23.4	76957	25.8	71165	24.3	57127	24.1
Interest on Fixed Capital	2249	1.0	2985	1.0	2855	1.0	2439	1.0
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**215179**	**100.0**	**298772**	**100.0**	**292340**	**100.0**	**237012**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Turmeric cultivation for different size groups are given in table T.17.2. The total cost of cultivation (Cost C2) per hectare of Turmeric amounted to an average of ₹ 237012 at State level. On an average, Cost A1 was ₹ 169812, which was highest on medium farms (₹ 207859) and lowest on large farms (₹ 156603). Here, the table indicates investment by medium farms to be high in cultivation of Turmeric per hectare compared to other farms categories.

Table T.17.2 Different cost concepts basis on different size holdings of Turmeric (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	156603	207859	198818	169812
Cost A_2	156603	207859	198818	169812
Cost B_1	158853	210844	201673	172251
Cost B_2	209146	287801	272838	229378
Cost C_1	164885	221814	221175	179885
Cost C_2	215179	298772	292340	237012
Cost C_3	236697	328649	321574	260714

Income measures

A comparison of various income measures from Turmeric cultivation are given in table T.17.3.

Table T.17.3 Returns from cultivation of Turmeric on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	145430	254244	228512	173243
Farm Business Income	145430	254244	228512	173243
Family Labour Income	92887	174301	154492	113677
Net Income	86854	163330	134990	106043
Returns to Management	65336	133453	105756	82342
Benefit Cost Ratio	1.40	1.55	1.46	1.45

Returns over variable cost varied between ₹ 145430 to ₹ 254244 as shown in the above table. The family labour income per hectare of Turmeric cultivation varied from ₹ 92887 in large farms to ₹ 174301 in medium farms. On an average, family labour income was worked out to be ₹ 113677 per hectare. The overall net income from Turmeric cultivation was ₹ 106043 per hectare, wherein net income of medium farms was highest (₹ 163330) and lowest for large farms (₹ 86854). The overall returns to management from Turmeric cultivation was ₹ 82342 per hectare. Benefit cost ratio of medium farms was highest (1.55) followed by small farms (1.46) and large farms (1.40). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than small and large farms.

Cost of production per quintal

The cost of production of Turmeric across different land size categories is given in table T.17.4. On an average, ₹ 3958 was spent on producing a quintal of Turmeric on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 4221) followed by small farms (₹ 3883) and large farms (₹ 3860) per quintal. This indicated that in case of Turmeric production, large and small farms had economies of scale on their farms as compared to medium farms.

Table T.17.4 Cost of production of Turmeric on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2809	2936	2641	2836
Cost A_2	2809	2936	2641	2836
Cost B_1	2849	2978	2679	2877
Cost B_2	3752	4066	3624	3831
Cost C_1	2958	3133	2938	3004
Cost C_2	3860	4221	3883	3958
Cost C_3	4246	4643	4271	4354

***

18. Red Chilli

Cost structure

The table T.18.1 shows the breakup of the cost incurred by different size groups in various operations of Red Chilli cultivation. On an average, ₹ 133426 was spent on Red Chilli per hectare. Cost of cultivation of medium farm category was highest, ₹ 146852 followed by large farms (₹ 131028) and small farms (₹ 123281). Among the different components of cost of cultivation, contribution of human labour was highest (40.5 per cent) followed by Seed (7.2 per cent). Medium farms had spent ₹ 62024 on human labour, which was significantly high compared to large farms (₹ 53039) and small farms category (₹ 47454).

Table T.18.1 Item-wise break up of cost of cultivation/ha. of Red Chilli Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	40060	30.6	43937	29.9	45233	36.7	42210	31.6
Family	12979	9.9	18088	12.3	2221	1.8	11929	8.9
Bullock Pair	0	0.0	779	0.5	1092	0.9	444	0.3
Mechanical Power	7182	5.5	9407	6.4	5092	4.1	7298	5.5
Seed	9844	7.5	9484	6.5	9057	7.3	9577	7.2
Manure	10159	7.8	8818	6.0	7519	6.1	9228	6.9
Fertilizer	5343	4.1	8586	5.8	8374	6.8	6855	5.1
Irrigation Charges	840	0.6	2178	1.5	1747	1.4	1388	1.0
Plant Protection Charges	6054	4.6	6265	4.3	3564	2.9	5559	4.2
Incidental charges	7448	5.7	5387	3.7	6564	5.3	6718	5.0
Repairs on Farm Implements	24	0.0	86	0.1	94	0.1	55	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5217	4.0	5696	3.9	5300	4.3	5360	4.0
Depreciation	266	0.2	290	0.2	270	0.2	273	0.2
Land Revenue and Other Taxes	27	0.0	29	0.0	27	0.0	27	0.0
Rental Value of Land	24259	18.5	26371	18.0	25778	20.9	25143	18.8
Interest on Fixed Capital	1328	1.0	1450	1.0	1349	1.1	1364	1.0
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**131028**	**100.0**	**146852**	**100.0**	**123281**	**100.0**	**133426**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Red Chilli cultivation for different size groups are given in table T.18.2. On an average, Cost A1 was ₹ 94989, which was highest on medium farms (₹ 100943) and lowest on large farms (₹ 92462). The total cost of cultivation (Cost C2) per hectare of Red Chilli amounted to an average of ₹ 133426 at State level. Here, the table describes investment of medium farms higher compared to other farms categories in cultivation of Red Chilli per hectare.

Table T.18.2 Different cost concepts basis on different size holdings of Red Chilli (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	92462	100943	93932	94989
Cost A_2	92462	100943	93932	94989
Cost B_1	93790	102393	95281	96353
Cost B_2	118049	128764	121059	121496
Cost C_1	106769	120480	97502	108283
Cost C_2	131028	146852	123281	133426
Cost C_3	144130	161537	135609	146768

Income measures

A comparison of various income measures from Red Chilli cultivation are given in table T.18.3.

Table T.18.3 Returns from cultivation of Red Chilli on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	53250	57459	60900	56033
Farm Business Income	53250	57459	60900	56033
Family Labour Income	27663	29638	33773	29526
Net Income	14684	11550	31551	17597
Returns to Management	1581	-3135	19223	4254
Benefit Cost Ratio	1.11	1.08	1.26	1.13

Returns over variable cost varied between ₹ 53250 to ₹ 60900 as shown in the above table. The family labour income per hectare of Red Chilli cultivation varied from ₹ 27663 in large farms to ₹ 33773 in small farms. On an average, family labour income was worked out to be ₹ 29526 per hectare. The overall net income from Red Chilli cultivation was ₹ 17597 per hectare, wherein net income of small farms was highest (₹ 31551) and lowest for medium farms (₹ 11550). The overall returns to management from Red Chilli cultivation was ₹ 4254 per hectare. Benefit cost ratio of small farms was highest (1.26) followed by large farms (1.11) and medium farms (1.08). Overall, it indicated that small farms were more efficient than medium and large farms.

Cost of production per quintal

The cost of production of Red Chilli across different land size categories is given in table T.18.4. On an average, ₹ 3225 was spent on producing a quintal of Red Chilli on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 3695) followed by large farms (₹ 3078) and small farms (₹ 3047) per quintal. This indicated that in case of Red Chilli production, small and large farms had economies of scale on their farms as compared to medium farms.

Table T.18.4 Cost of production of Red Chilli on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2172	2540	2322	2296
Cost A_2	2172	2540	2322	2296
Cost B_1	2203	2577	2355	2329
Cost B_2	2773	3240	2992	2937
Cost C_1	2508	3032	2410	2618
Cost C_2	3078	3695	3047	3225
Cost C_3	3386	4065	3352	3548

***

19. Coriander Seed

Cost structure

The table T.19.1 shows the breakup of the cost incurred by different size groups in various operations of Coriander Seed cultivation. On an average, ₹ 42592 was spent on Coriander Seed per hectare. Cost of cultivation of small farm category was highest, ₹ 59114 followed by medium farms (₹ 52861) and large farms (₹ 39731). Among the different components of cost of cultivation, contribution of human labour was highest (29.9 per cent) followed Mechanical Power (11.6 per cent). Small farms had spent ₹ 22875 and ₹ 6325 on human labour and Manure & Fertilizers respectively, which was exponentially high compared to medium farms (₹ 15977 and ₹ 1795) and large farms category (₹ 11701 and ₹ 1303).

Table T.19.1 Item-wise break up of cost of cultivation/ha. of Coriander Seed Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	8024	20.2	10649	20.1	14750	25.0	8661	20.3
Family	3678	9.3	5328	10.1	8125	13.7	4083	9.6
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	4777	12.0	5726	10.8	4375	7.4	4942	11.6
Seed	1668	4.2	1898	3.6	1875	3.2	1716	4.0
Manure	1007	2.5	969	1.8	4375	7.4	1078	2.5
Fertilizer	296	0.7	827	1.6	1950	3.3	431	1.0
Irrigation Charges	441	1.1	195	0.4	0	0.0	385	0.9
Plant Protection Charges	2210	5.6	2500	4.7	2500	4.2	2270	5.3
Incidental charges	1520	3.8	1625	3.1	3500	5.9	1585	3.7
Repairs on Farm Implements	46	0.1	60	0.1	50	0.1	49	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1199	3.0	1467	2.8	2003	3.4	1267	3.0
Depreciation	61	0.2	75	0.1	102	0.2	64	0.2
Land Revenue and Other Taxes	6	0.0	7	0.0	10	0.0	6	0.0
Rental Value of Land	14493	36.5	21162	40.0	14990	25.4	15731	36.9
Interest on Fixed Capital	305	0.8	373	0.7	510	0.9	322	0.8
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**39731**	**100.0**	**52861**	**100.0**	**59114**	**100.0**	**42592**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Coriander Seed cultivation for different size groups are given in table T.19.2. The table shows that total cost of cultivation (Cost C2) per hectare of Coriander Seed amounted to ₹ 39731,₹ 52861 and ₹ 59114 on large, medium and small farms respectively with an average of ₹ 42592 at State level. Apparently, Cost A1 to Cost C3 are highest for small farms and lowest in large farms. Inverse relationship is observed between cost incurred on different size farms.

Table T.19.2 Different cost concepts basis on different size holdings of Coriander Seed (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	21256	25998	35490	22455
Cost A_2	21256	25998	35490	22455
Cost B_1	21561	26371	35999	22778
Cost B_2	36054	47533	50989	38508
Cost C_1	25239	31700	44124	26861
Cost C_2	39731	52861	59114	42592
Cost C_3	43705	58148	65026	46851

Income measures

A comparison of various income measures from Coriander Seed cultivation are given in table T.19.3.

Table T.19.3 Returns from cultivation of Coriander Seed on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	65737	101018	54510	71967
Farm Business Income	65737	101018	54510	71967
Family Labour Income	50939	79482	39011	55914
Net Income	47261	74154	30886	51831
Returns to Management	43288	68868	24974	47572
Benefit Cost Ratio	2.19	2.40	1.52	2.22

Returns over variable cost varied between ₹ 54510 to ₹ 101018 as shown in the above table. The family labour income per hectare of Coriander Seed cultivation varied from ₹ 39011 in small farms to ₹ 79482 in medium farms. On an average, family labour income was worked out to be ₹ 55914 per hectare. The overall net income from Coriander Seed cultivation was ₹ 51831 per hectare, wherein net income of medium farms was highest (₹ 74154) and lowest for small farms (₹ 30886). The overall returns to management from Coriander Seed cultivation was ₹ 47572 per hectare. Benefit cost ratio of medium farms was highest (2.40) followed by large farms (2.19) and small farms (1.52). Overall, it indicated that Coriander Seed production in the sample area was economical viable and profitable. However, profitablity for small farms even at the high cost of cultivation was less compared to medium and large farms categories.

Cost of production per quintal

The cost of production of Coriander Seed across different land size categories is given in table T.19.4. On an average, ₹ 2543 was spent on producing a quintal of Coriander Seed on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 2956) followed by large farms (₹ 2534) and medium farms (₹ 2525) per quintal. This showed that in case of Coriander Seed production, medium and large farms had economies of scale on their farms as compared to small farms.

Table T.19.4 Cost of production of Coriander Seed on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1356	1242	1774	1341
Cost A_2	1356	1242	1774	1341
Cost B_1	1375	1260	1800	1360
Cost B_2	2299	2270	2549	2299
Cost C_1	1609	1514	2206	1604
Cost C_2	2534	2525	2956	2543
Cost C_3	2787	2777	3251	2798

***

20. Ajwain

Cost structure

The table T.20.1 shows the breakup of the cost incurred by different size groups in various operations of Ajwain cultivation. On an average, ₹ 68822 was spent on Ajwain per hectare. Cost of cultivation of small farm category was highest, ₹ 72562 followed by large farms (₹ 50001). Sample for this crop was available in medium farms during study. Among the different components of cost of cultivation, contribution of Seed was highest (20.3 per cent) followed by Mechanical Power (6.7 per cent). Small farms had spent ₹ 14296 and ₹ 4445 on Seed and Incidental charges respectively, which was high compared to large farms category (₹ 12333 and ₹ 1170).

Table T.20.1 Item-wise break up of cost of cultivation/ha. of Ajwain Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	2083	4.2	--	--	3166	4.4	2987	4.3
Family	0	0.0	--	--	0	0.0	0	0.0
Bullock Pair	625	1.2	--	--	1407	1.9	1278	1.9
Mechanical Power	5000	10.0	--	--	4561	6.3	4634	6.7
Seed	12333	24.7	--	--	14296	19.7	13971	20.3
Manure	0	0.0	--	--	0	0.0	0	0.0
Fertilizer	0	0.0	--	--	0	0.0	0	0.0
Irrigation Charges	0	0.0	--	--	0	0.0	0	0.0
Plant Protection Charges	0	0.0	--	--	0	0.0	0	0.0
Incidental charges	1170	2.3	--	--	4445	6.1	3902	5.7
Repairs on Farm Implements	42	0.1	--	--	112	0.2	100	0.1
Insurance Premium	0	0.0	--	--	0	0.0	0	0.0
Rab Material	0	0.0	--	--	0	0.0	0	0.0
Interest on working Capital	1275	2.6	--	--	1679	2.3	1612	2.3
Depreciation	65	0.1	--	--	85	0.1	82	0.1
Land Revenue and Other Taxes	6	0.0	--	--	9	0.0	8	0.0
Rental Value of Land	27077	54.2	--	--	42372	58.4	39837	57.9
Interest on Fixed Capital	325	0.6	--	--	427	0.6	410	0.6
Amortization Cost	0	0.0	--	--	0	0.0	0	0.0
Total Cost	**50001**	**100.0**	**--**	**--**	**72562**	**100.0**	**68822**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Ajwain cultivation for different size groups are given in table T.20.2. The total cost of cultivation (Cost C2) per hectare of Ajwain amounted to an average of ₹ 68822 at State level. On an average, Cost A1 was ₹ 28575, which was highest on small farms (₹ 29762) and lowest on large farms (₹ 22599). Here, investment by small farms is high compared to large farms in cultivation of Ajwain per hectare.

Table T.20.2 Different cost concepts basis on different size holdings of Ajwain (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	22599	--	29762	28575
Cost A_2	22599	--	29762	28575
Cost B_1	22924	--	30189	28985
Cost B_2	50001	--	72562	68822
Cost C_1	22924	--	30189	28985
Cost C_2	50001	--	72562	68822
Cost C_3	55001	--	79818	75705

Income measures

A comparison of various income measures from Ajwain cultivation are given in table T.20.3.

Table T.20.3 Returns from cultivation of Ajwain on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	139901	--	224524	210498
Farm Business Income	139901	--	224524	210498
Family Labour Income	112499	--	181724	170251
Net Income	112499	--	181724	170251
Returns to Management	107499	--	174468	163368
Benefit Cost Ratio	3.25	--	3.50	3.47

Returns over variable cost varied between ₹ 139901 to ₹ 224524 as shown in the above table. The family labour income per hectare of Ajwain cultivation varied from ₹ 112499 in large farms to ₹ 181724 in small farms. The overall net income from Ajwain cultivation was ₹ 170251 per hectare. The overall returns to management from Ajwain cultivation was ₹ 163368. Benefit cost ratio of small farms was highest (3.50) followed by large farms (3.25). Small farms were more efficient than large farms.

Cost of production per quintal

The cost of production of Ajwain across different land size categories is given in table T.20.4. On an average, ₹ 4118 was spent on producing a quintal of Ajwain on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 4135) followed by large farms (₹ 4000) per quintal. This indicates that in case of Ajwain production, large farms had economies of scale on their farms as compared to small farms.

Table T.20.4 Cost of production of Ajwain on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1808	--	1696	1710
Cost A_2	1808	--	1696	1710
Cost B_1	1834	--	1720	1734
Cost B_2	4000	--	4135	4118
Cost C_1	1834	--	1720	1734
Cost C_2	4000	--	4135	4118
Cost C_3	4400	--	4548	4530

***

21. Garlic

Cost structure

The table T.21.1 shows the breakup of the cost incurred by different size groups in various operations of Garlic cultivation. On an average, ₹ 155587 was spent on Garlic per hectare. Cost of cultivation of small farm category was highest, ₹ 179683 followed by medium farms (₹ 156541) and large farms (₹ 127629). Among the different components of cost of cultivation, contribution of human labour was highest (26.2 per cent) followed by Seed (10.4 per cent). Small farms had spent ₹ 45137 and ₹ 32681 on human labour and Seed respectively, which was high compared to medium farms (₹ 39873 and ₹ 29780) and small farms category (₹ 38584 and ₹ 24522).

Table T.21.1 Item-wise break up of cost of cultivation/ha. of Garlic Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	20979	16.4	22491	14.4	34354	19.1	24575	15.8
Family	17604	13.8	17382	11.1	10784	6.0	16103	10.4
Bullock Pair	1507	1.2	1169	0.7	234	0.1	1047	0.7
Mechanical Power	2816	2.2	4605	2.9	3224	1.8	3983	2.6
Seed	24522	19.2	29780	19.0	32681	18.2	29344	18.9
Manure	4722	3.7	5124	3.3	1203	0.7	4261	2.7
Fertilizer	2950	2.3	2925	1.9	6925	3.9	3731	2.4
Irrigation Charges	1354	1.1	1540	1.0	1697	0.9	1535	1.0
Plant Protection Charges	1819	1.4	1601	1.0	1586	0.9	1640	1.1
Incidental charges	5082	4.0	5831	3.7	5258	2.9	5571	3.6
Repairs on Farm Implements	37	0.0	51	0.0	42	0.0	46	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	3947	3.1	4507	2.9	5232	2.9	4544	2.9
Depreciation	201	0.2	229	0.1	266	0.1	231	0.1
Land Revenue and Other Taxes	20	0.0	23	0.0	27	0.0	23	0.0
Rental Value of Land	39064	30.6	58135	37.1	74840	41.7	57794	37.1
Interest on Fixed Capital	1005	0.8	1147	0.7	1332	0.7	1157	0.7
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**127629**	**100.0**	**156541**	**100.0**	**179683**	**100.0**	**155587**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Garlic cultivation for different size groups are given in table T.21.2. The table shows that total cost of cultivation (Cost C2) per hectare of Garlic amounted to ₹ 127629, ₹ 156541 and ₹ 179683 on large, medium and small farms respectively with an average of ₹ 155587 at State level. Apparently, Cost A1 to Cost C3 are highest for small farms and lowest in medium farms. Inverse relationship was observed between cost incurred on different size farms.

Table T.21.2 Different cost concepts basis on different size holdings of Garlic (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	69956	79877	92728	80533
Cost A_2	69956	79877	92728	80533
Cost B_1	70960	81024	94060	81690
Cost B_2	110025	139159	168900	139484
Cost C_1	88564	98406	104844	97793
Cost C_2	127629	156541	179683	155587
Cost C_3	140392	172195	197652	171145

Income measures

A comparison of various income measures from Garlic cultivation are given in table T.21.3.

Table T.21.3 Returns from cultivation of Garlic on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	164552	269070	356471	266370
Farm Business Income	164552	269070	356471	266370
Family Labour Income	124482	209788	280300	207419
Net Income	106878	192406	269516	191316
Returns to Management	94115	176752	251548	175757
Benefit Cost Ratio	1.84	2.23	2.50	2.23

Returns over variable cost varied between ₹ 164552 to ₹ 356471 as shown in the above table. The family labour income per hectare of Garlic cultivation varied from ₹ 124482 in small farms to ₹ 280300 in large farms. On an average, family labour income was worked out to be ₹ 207419 per hectare. The overall net income from Garlic cultivation was ₹ 191316 per hectare, wherein net income of small farms was highest (₹ 269516) and lowest for large farms (₹ 106878). The overall returns to management from Garlic cultivation was ₹ 175757 per hectare. Benefit cost ratio of small farms was highest (2.50) followed by medium farms (2.23) and large farms (1.84). Hence, it indicated that with the benefit cost ratio of 2.23, the cultivation of Garlic per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Garlic across different land size categories is given in table T.21.4. On an average, ₹ 1562 was spent on producing a quintal of Garlic on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1815) followed by medium farms (₹ 1551) and small farms (₹ 1450) per quintal. This indicated that in case of Garlic production, it indicated that small farms were more efficient than medium and large farms mainly because of lower cost per unit of output.

Table T.21.4 Cost of production of Garlic on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	995	791	748	808
Cost A_2	995	791	748	808
Cost B_1	1009	803	759	820
Cost B_2	1565	1378	1363	1400
Cost C_1	1260	975	846	982
Cost C_2	1815	1551	1450	1562
Cost C_3	1997	1706	1595	1718

***

22. Watermelon

Cost structure

The table T.22.1 shows the breakup of the cost incurred by different size groups in various operations of Watermelon cultivation. On an average, ₹ 175310 was spent on Watermelon per hectare. Cost of cultivation of medium farm category was highest, ₹ 179500 followed by large farms (₹ 173083) and small farms (₹ 165423). Among the different components of cost of cultivation, contribution of human labour was highest (23.8 per cent) followed by Incidental Charges (10.1 per cent) followed by Mechanical Power (9.6 per cent). Medium farms had spent ₹ 7084 on Fertilizers, which was high compared to large farms (₹ 5950) and small farms category (₹ 3333).

Table T.22.1 Item-wise break up of cost of cultivation/ha. of Watermelon Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	27673	16.0	27576	15.4	37756	22.8	28727	16.4
Family	11536	6.7	15655	8.7	5990	3.6	12897	7.4
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	18954	11.0	15350	8.6	15369	9.3	16843	9.6
Seed	3975	2.3	3819	2.1	3281	2.0	3825	2.2
Manure	0	0.0	0	0.0	0	0.0	0	0.0
Fertilizer	5950	3.4	7084	3.9	3333	2.0	6206	3.5
Irrigation Charges	1759	1.0	2883	1.6	6828	4.1	2849	1.6
Plant Protection Charges	5320	3.1	5988	3.3	4498	2.7	5549	3.2
Incidental charges	16073	9.3	18235	10.2	22104	13.4	17763	10.1
Repairs on Farm Implements	15	0.0	33	0.0	82	0.0	31	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4783	2.8	4858	2.7	5595	3.4	4907	2.8
Depreciation	298	0.2	302	0.2	348	0.2	305	0.2
Land Revenue and Other Taxes	60	0.0	60	0.0	70	0.0	61	0.0
Rental Value of Land	76093	44.0	77053	42.9	59473	36.0	74738	42.6
Interest on Fixed Capital	595	0.3	605	0.3	696	0.4	611	0.3
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**173083**	**100.0**	**179500**	**100.0**	**165423**	**100.0**	**175310**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Watermelon cultivation for different size groups are given in table T.22.2. On an average, Cost A1 was ₹ 87065, which was highest on small farms (₹ 99264) and lowest on medium farms (₹ 86188). The total cost of cultivation (Cost C2) per hectare of Watermelon amounted to an average of ₹ 175310 at State level wherein investment by medium farms was higher compared to other farms categories in cultivation of Watermelon per hectare.

Table T.22.2 Different cost concepts basis on different size holdings of Watermelon (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	84860	86188	99264	87065
Cost A_2	84860	86188	99264	87065
Cost B_1	85455	86793	99961	87676
Cost B_2	161547	163846	159433	162414
Cost C_1	96991	102448	105950	100573
Cost C_2	173083	179500	165423	175310
Cost C_3	190392	197450	181965	192841

Income measures

A comparison of various income measures from Watermelon cultivation are given in table T.22.3.

Table T.22.3 Returns from cultivation of Watermelon on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	372053	376490	257990	361727
Farm Business Income	372053	376490	257990	361727
Family Labour Income	295365	298833	197820	286379
Net Income	283829	283178	191831	273482
Returns to Management	266521	265228	175289	255951
Benefit Cost Ratio	2.64	2.58	2.16	2.56

Returns over variable cost varied between ₹ 257990 to ₹ 376490 as shown in the above table. The family labour income per hectare of Watermelon cultivation varied from ₹ 197820 in small farms to ₹ 298833 in large farms. On an average, family labour income was worked out to be ₹ 286379 per hectare. The overall net income from Watermelon cultivation was ₹ 273482 per hectare, wherein net income of large farms was highest (₹ 283829) and lowest for small farms (₹ 191831). The overall returns to management from Watermelon cultivation was ₹ 255951 per hectare. Benefit cost ratio of large farms was highest (2.64) followed by medium farms (2.58) and small farms (2.16). Hence, it indicated that with the benefit cost ratio of 2.56, the cultivation of Watermelon per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Watermelon across different land size categories is given in table T.22.4. On an average, ₹ 659 was spent on producing a quintal of Watermelon on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 669) followed by small farms (₹ 661) and medium farms (₹ 650) per quintal. This indicated that in case of Watermelon production, medium farms had economies of scale on their farms as compared to small and large farms.

Table T.22.4 Cost of production of Watermelon on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	328	312	397	327
Cost A_2	328	312	397	327
Cost B_1	330	314	400	330
Cost B_2	625	594	637	610
Cost C_1	375	371	423	378
Cost C_2	669	650	661	659
Cost C_3	736	715	727	725

***

23. Muskmelon

Cost structure

The table T.23.1 shows the breakup of the cost incurred by different size groups in various operations of Muskmelon cultivation. On an average, ₹ 241219 was spent on Muskmelon per hectare. Cost of cultivation of large farm category was highest, ₹ 272162 followed by medium farms (₹ 226853). Sample for this crop was available in small farms during study. Among the different components of cost of cultivation, contribution of human labour was highest (20.3 per cent) followed by Mechanical Power (8.3 per cent) and Incidental Charges (8.0 per cent). Large farms had spent higher in almost all the cost components compared to medium farms except for Irrigation Charges.

Table T.23.1 Item-wise break up of cost of cultivation/ha. of Muskmelon Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	36960	13.6	31775	14.0	--	--	33419	13.9
Family	16827	6.2	14759	6.5	--	--	15415	6.4
Bullock Pair	0	0.0	0	0.0	--	--	0	0.0
Mechanical Power	24463	9.0	17877	7.9	--	--	19965	8.3
Seed	5327	2.0	3830	1.7	--	--	4305	1.8
Manure	0	0.0	0	0.0	--	--	0	0.0
Fertilizer	8208	3.0	6457	2.8	--	--	7012	2.9
Irrigation Charges	2282	0.8	2694	1.2	--	--	2563	1.1
Plant Protection Charges	7577	2.8	5198	2.3	--	--	5952	2.5
Incidental charges	20731	7.6	18500	8.2	--	--	19207	8.0
Repairs on Farm Implements	18	0.0	24	0.0	--	--	22	0.0
Insurance Premium	0	0.0	0	0.0	--	--	0	0.0
Rab Material	0	0.0	0	0.0	--	--	0	0.0
Interest on working Capital	6334	2.3	5181	2.3	--	--	5547	2.3
Depreciation	394	0.1	322	0.1	--	--	345	0.1
Land Revenue and Other Taxes	79	0.0	64	0.0	--	--	69	0.0
Rental Value of Land	142175	52.2	119525	52.7	--	--	126707	52.5
Interest on Fixed Capital	788	0.3	645	0.3	--	--	690	0.3
Amortization Cost	0	0.0	0	0.0	--	--	0	0.0
Total Cost	**272162**	**100.0**	**226853**	**100.0**	**--**	**--**	**241219**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Muskmelon cultivation for different size groups are given in table T.23.2. The total cost of cultivation (Cost C2) per hectare of Muskmelon amounted to an average of ₹ 241219 at State level. On an average, Cost A1 was ₹ 98407, which was highest on large farms (₹ 112372) and lowest on medium farms (₹ 91923). Here, the table depicts high amount of investment done by large farms compared to other farms categories in cultivation of Muskmelon per hectare.

Table T.23.2 Different cost concepts basis on different size holdings of Muskmelon (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	112372	91923	--	98407
Cost A_2	112372	91923	--	98407
Cost B_1	113161	92568	--	99097
Cost B_2	255336	212094	--	225804
Cost C_1	129987	107327	--	114512
Cost C_2	272162	226853	--	241219
Cost C_3	299379	249538	--	265341

Income measures

A comparison of various income measures from Muskmelon cultivation are given in table T.23.3.

Table T.23.3 Returns from cultivation of Muskmelon on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	741151	625616	--	662249
Farm Business Income	741151	625616	--	662249
Family Labour Income	598188	505446	--	534852
Net Income	581361	490687	--	519437
Returns to Management	554144	468002	--	495315
Benefit Cost Ratio	3.14	3.16	--	3.15

Returns over variable cost varied between ₹ 625616 to ₹ 741151 as shown in the above table. The family labour income per hectare of Muskmelon cultivation varied from ₹ 505446 in medium farms to ₹ 598188 in large farms. On an average, family labour income was worked out to be ₹ 534852 per hectare. The overall net income from Muskmelon cultivation was ₹ 519437 per hectare. The overall returns to management from Muskmelon cultivation was ₹ 495315 per hectare. Benefit cost ratio of medium farms was slightly higher (3.16) compared to large farms (3.14). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms was somewhat more efficient than large farms.

Cost of production per quintal

The cost of production of Muskmelon across different land size categories is given in table T.23.4. On an average, ₹ 895 was spent on producing a quintal of Muskmelon on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1018) followed by medium farms (₹ 839) per quintal. It indicated that medium farms were more efficient than large farms mainly because of lower cost per unit of output.

Table T.23.4 Cost of production of Muskmelon on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	420	340	--	365
Cost A_2	420	340	--	365
Cost B_1	423	342	--	368
Cost B_2	955	784	--	838
Cost C_1	486	397	--	425
Cost C_2	1018	839	--	895
Cost C_3	1120	922	--	985

***

24. Banana

Cost structure

The table T.24.1 shows the breakup of the cost incurred by different size groups in various operations of Banana cultivation. On an average, ₹ 246012 was spent on Banana per hectare. Cost of cultivation of medium farm category was highest, ₹ 301866 followed by large farms (₹ 234878) and small farms (₹ 202043). Among the different components of cost of cultivation, contribution of human labour was highest (18.1 per cent) followed by Seed (12.5 per cent). Medium farms had spent ₹ 56432 and ₹ 35543 on human labour and Seed respectively, which was noticeably high compared to large farms (₹ 42106 and ₹ 29753) and small farms category (₹ 37369 and ₹ 25353).

Table T.24.1 Item-wise break up of cost of cultivation/ha. of Banana Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	27925	11.9	36264	12.0	27966	13.8	29491	12.0
Family	14181	6.0	20168	6.7	9403	4.7	15096	6.1
Bullock Pair	41	0.0	166	0.1	714	0.4	93	0.0
Mechanical Power	19504	8.3	29967	9.9	16385	8.1	21331	8.7
Seed	29753	12.7	35543	11.8	25353	12.5	30647	12.5
Manure	18494	7.9	24184	8.0	21193	10.5	19679	8.0
Fertilizer	13079	5.6	15094	5.0	12045	6.0	13412	5.5
Irrigation Charges	1673	0.7	2698	0.9	3120	1.5	1928	0.8
Plant Protection Charges	8297	3.5	12606	4.2	7407	3.7	9066	3.7
Incidental charges	5193	2.2	10178	3.4	5177	2.6	6127	2.5
Repairs on Farm Implements	59	0.0	119	0.0	86	0.0	71	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	7441	3.2	10009	3.3	7167	3.5	7911	3.2
Depreciation	12723	5.4	17114	5.7	12254	6.1	13527	5.5
Land Revenue and Other Taxes	55	0.0	74	0.0	53	0.0	59	0.0
Rental Value of Land	69823	29.7	78751	26.1	47324	23.4	70516	28.7
Interest on Fixed Capital	6638	2.8	8929	3.0	6394	3.2	7057	2.9
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**234878**	**100.0**	**301866**	**100.0**	**202043**	**100.0**	**246012**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Banana cultivation for different size groups are given in table T.24.2. The total cost of cultivation (Cost C2) per hectare of Banana amounted to an average of ₹ 246012 at State level. On an average, Cost A1 was ₹ 153343, which was highest on medium farms (₹ 194018) and lowest on small farms (₹ 138922). Here, the table clearly indicated that high cost was incurred by medium farms compared to other farms categories in cultivation of Banana per hectare.

Table T.24.2 Different cost concepts basis on different size holdings of Banana (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	144236	194018	138922	153343
Cost A_2	144236	194018	138922	153343
Cost B_1	150874	202947	145316	160400
Cost B_2	220697	281698	192640	230916
Cost C_1	165055	223115	154719	175496
Cost C_2	234878	301866	202043	246012
Cost C_3	258365	332053	222248	270613

Income measures

A comparison of various income measures from Banana cultivation are given in table T.24.3.

Table T.24.3 Returns from cultivation of Banana on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	275034	278936	145343	270108
Farm Business Income	275034	278936	145343	270108
Family Labour Income	198573	191256	91625	192534
Net Income	184392	171088	82221	177439
Returns to Management	160904	140901	62017	152837
Benefit Cost Ratio	1.79	1.57	1.41	1.72

Returns over variable cost varied between ₹ 145343 to ₹ 278936 as shown in the above table. The family labour income per hectare of Banana cultivation varied from ₹ 91625 in small farms to ₹ 198573 in large farms. On an average, family labour income was worked out to be ₹ 192534 per hectare. The overall net income from Banana cultivation was ₹ 177439 per hectare, wherein net income of large farms was highest (₹ 184392) and lowest for small farms (₹ 82221). The overall returns to management from Banana cultivation was ₹ 152837 per hectare. Benefit cost ratio of large farms was highest (1.79) followed by medium farms (1.57) and small farms (1.41). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Banana across different land size categories is given in table T.24.4. On an average, ₹ 508 was spent on producing a quintal of Banana on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 604) followed by medium farms (₹ 586) and large farms (₹ 484) per quintal. This indicated that in case of Banana production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.24.4 Cost of production of Banana on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	297	377	415	317
Cost A_2	297	377	415	317
Cost B_1	311	394	434	331
Cost B_2	455	547	576	477
Cost C_1	340	433	463	362
Cost C_2	484	586	604	508
Cost C_3	532	645	665	559

***

25. Limes

Cost structure

The table T.25.1 shows the breakup of the cost incurred by different size groups in various operations of Limes cultivation. On an average, ₹ 170040 was spent on Limes per hectare. Cost of cultivation of large farm category was highest, ₹ 177252 followed by medium farms (₹ 159783) and small farms (₹ 95278). Among the different components of cost of cultivation, contribution of human labour was highest (33.9 per cent) followed by Manure (10.6 per cent). Large farms had spent ₹ 60180 on human labour, which was substantially high compared to medium farms (₹ 54056) and small farms category (₹ 32699).

Table T.25.1 Item-wise break up of cost of cultivation/ha. of Limes Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	37116	20.9	21387	13.4	27846	29.2	31757	18.7
Family	23065	13.0	32669	20.4	4853	5.1	25917	15.2
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	15302	8.6	4555	2.9	14103	14.8	11731	6.9
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	17535	9.9	19501	12.2	7721	8.1	18012	10.6
Fertilizer	8671	4.9	10390	6.5	3750	3.9	9152	5.4
Irrigation Charges	2197	1.2	2204	1.4	3341	3.5	2219	1.3
Plant Protection Charges	5962	3.4	4679	2.9	735	0.8	5446	3.2
Incidental charges	6209	3.5	9664	6.0	1838	1.9	7273	4.3
Repairs on Farm Implements	66	0.0	126	0.1	146	0.2	87	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5583	3.1	4350	2.7	3569	3.7	5141	3.0
Depreciation	5550	3.1	4324	2.7	3547	3.7	5110	3.0
Land Revenue and Other Taxes	52	0.0	40	0.0	33	0.0	48	0.0
Rental Value of Land	42849	24.2	37861	23.7	20396	21.4	40806	24.0
Interest on Fixed Capital	3092	1.7	2409	1.5	1977	2.1	2847	1.7
Amortization Cost	4004	2.3	5623	3.5	1424	1.5	4493	2.6
Total Cost	**177252**	**100.0**	**159783**	**100.0**	**95278**	**100.0**	**170040**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Limes cultivation for different size groups are given in table T.25.2. The total cost of cultivation (Cost C2) per hectare of Limes amounted to an average of ₹ 170040 at State level. On an average, Cost A1 was ₹ 95976, which was highest on large farms (₹ 104242) and lowest on small farms (₹ 66630). Here, the table depicts large farms investment was highest compared to other farms categories in cultivation of Limes per hectare.

Table T.25.2 Different cost concepts basis on different size holdings of Limes (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	104242	81221	66630	95976
Cost A_2	104242	81221	66630	95976
Cost B_1	107335	83630	68606	98824
Cost B_2	154187	127114	90425	144123
Cost C_1	130399	116299	73459	124740
Cost C_2	177252	159783	95278	170040
Cost C_3	194977	175761	104806	187044

Income measures

A comparison of various income measures from Limes cultivation are given in table T.25.3.

Table T.25.3 Returns from cultivation of Limes on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	153163	146187	55944	149148
Farm Business Income	153163	146187	55944	149148
Family Labour Income	103218	100293	32148	101001
Net Income	80153	67624	27295	75085
Returns to Management	62428	51646	17767	58081
Benefit Cost Ratio	1.45	1.42	1.29	1.44

Returns over variable cost varied between ₹ 55944 to ₹ 153163 as shown in the above table. The family labour income per hectare of Limes cultivation varied from ₹ 32148 in small farms to ₹ 153163 in large farms. On an average, family labour income was worked out to be ₹ 101001 per hectare. The overall net income from Limes cultivation was ₹ 75085 per hectare, wherein net income of large farms was highest (₹ 80153) and lowest for small farms (₹ 27295). The overall returns to management from Limes cultivation was ₹ 58081 per hectare. Benefit cost ratio of large farms was highest (1.45) followed by medium farms (1.42) and small farms (1.29). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Limes across different land size categories is given in table T.25.4. On an average, ₹ 1215 was spent on producing a quintal of Limes on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1787) followed by large farms (₹ 1255) and medium farms (₹ 1126) per quintal. This indicated that in case of Limes production, medium farms had economies of scale on their farms as compared to small and large farms.

Table T.25.4 Cost of production of Limes on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	738	572	1250	686
Cost A_2	738	572	1250	686
Cost B_1	760	589	1287	706
Cost B_2	1091	896	1696	1030
Cost C_1	923	820	1378	891
Cost C_2	1255	1126	1787	1215
Cost C_3	1380	1239	1966	1337

***

26. Pomegranate

Cost structure

The table T.26.1 shows the breakup of the cost incurred by different size groups in various operations of Pomegranate cultivation. On an average, ₹ 315743 was spent on Pomegranate per hectare. Cost of cultivation of small farm category was highest, ₹ 358357 followed by large farms (₹ 321986) and medium farms (₹ 275948). Among the different components of cost of cultivation, contribution of human labour was highest (17.6 per cent) followed by Plant Protection Charges (13.9 per cent) and Mechanical Power (6.9 per cent). Small farms had spent ₹ 69486 on Plant Protection Charges, which was high compared to large farms (₹ 44581) and medium farms category (₹ 33963).

Table T.26.1 Item-wise break up of cost of cultivation/ha. of Pomegranate Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	48421	15.0	36879	13.4	35508	9.9	45811	14.5
Family	8942	2.8	13130	4.8	13167	3.7	9867	3.1
Bullock Pair	930	0.3	863	0.3	1459	0.4	944	0.3
Mechanical Power	23359	7.3	16324	5.9	15357	4.3	21762	6.9
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	10038	3.1	15138	5.5	14252	4.0	11120	3.5
Fertilizer	17777	5.5	15987	5.8	19068	5.3	17528	5.6
Irrigation Charges	2009	0.6	3129	1.1	7786	2.2	2476	0.8
Plant Protection Charges	44581	13.8	33963	12.3	69486	19.4	43924	13.9
Incidental charges	4993	1.6	6719	2.4	8149	2.3	5441	1.7
Repairs on Farm Implements	52	0.0	163	0.1	242	0.1	80	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	9129	2.8	7750	2.8	10278	2.9	8945	2.8
Depreciation	9075	2.8	7703	2.8	10217	2.9	8892	2.8
Land Revenue and Other Taxes	85	0.0	72	0.0	96	0.0	83	0.0
Rental Value of Land	123267	38.3	96864	35.1	133130	37.1	119165	37.7
Interest on Fixed Capital	5056	1.6	4292	1.6	5693	1.6	4954	1.6
Amortization Cost	14273	4.4	16971	6.2	14470	4.0	14749	4.7
Total Cost	**321986**	**100.0**	**275948**	**100.0**	**358357**	**100.0**	**315743**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Pomegranate cultivation for different size groups are given in table T.26.2. The total cost of cultivation (Cost C2) per hectare of Pomegranate amounted to an average of ₹ 315743 at State level. On an average, Cost A1 was ₹ 167007, which was highest on small farms (₹ 191898) and lowest on medium farms (₹ 144691). Here, the table depicted high investment by small farms in cultivation of Pomegranate per hectare compared to other farms categories.

Table T.26.2 Different cost concepts basis on different size holdings of Pomegranate (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	170447	144691	191898	167007
Cost A_2	170447	144691	191898	167007
Cost B_1	175503	148983	197590	171961
Cost B_2	313044	262819	345190	305876
Cost C_1	184445	162113	210757	181828
Cost C_2	321986	275948	358357	315743
Cost C_3	354184	303543	394193	347317

Income measures

A comparison of various income measures from Pomegranate cultivation are given in table T.26.3.

Table T.26.3 Returns from cultivation of Pomegranate on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	569666	436924	607454	548484
Farm Business Income	569666	436924	607454	548484
Family Labour Income	427069	318796	454161	409615
Net Income	418127	305667	440994	399748
Returns to Management	385929	278072	405159	368173
Benefit Cost Ratio	2.30	2.11	2.23	2.27

Returns over variable cost varied between ₹ 436924 to ₹ 607454 as shown in the above table. The family labour income per hectare of Pomegranate cultivation varied from ₹ 318796 in medium farms to ₹ 454161 in small farms. On an average, family labour income was worked out to be ₹ 409615 per hectare. The overall net income from Pomegranate cultivation was ₹ 399748 per hectare, wherein net income of small farms was highest (₹ 440994) and lowest for medium farms (₹ 305667). The overall returns to management from Pomegranate cultivation was ₹ 368173 per hectare. Benefit cost ratio of large farms was highest (2.30) followed by small farms (2.23) and medium farms (2.11). Hence, it indicated that with the benefit cost ratio of 2.27, the cultivation of Pomegranate per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Pomegranate across different land size categories is given in table T.26.4. On an average, ₹ 1280 was spent on producing a quintal of Pomegranate on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1291) followed by medium farms (₹ 1261) and small farms (₹ 1192) per quintal. This indicated that in case of Pomegranate production, small farms were more efficient and had economies of scale on their farms as compared to medium and large farms.

Table T.26.4 Cost of production of Pomegranate on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	683	661	638	677
Cost A_2	683	661	638	677
Cost B_1	703	681	657	697
Cost B_2	1255	1201	1148	1240
Cost C_1	739	741	701	737
Cost C_2	1291	1261	1192	1280
Cost C_3	1420	1387	1311	1408

***

27. Mandarin

Cost structure

The table T.27.1 shows the breakup of the cost incurred by different size groups in various operations of Mandarin cultivation. On an average, ₹ 134990 was spent on Mandarin per hectare. Cost of cultivation of small farm category was highest, ₹ 197654 followed by large farms (₹ 126115) and medium farms (₹ 117237). Among the different components of cost of cultivation, contribution of human labour was highest (20.8 per cent) followed by Plant Protection Charges (7.4 per cent). Small farms had spent ₹ 31632 and ₹ 14581 on Manure & Fertilizers and Plant Protection Charges respectively, which was exponentially high compared to medium farms (₹ 14211 and ₹ 7122) and large farms category (₹ 13379 and ₹ 10079).

Table T.27.1 Item-wise break up of cost of cultivation/ha. of Mandarin Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	24730	19.6	14087	12.0	19318	9.8	20943	15.5
Family	6910	5.5	7057	6.0	8268	4.2	7165	5.3
Bullock Pair	390	0.3	1165	1.0	1595	0.8	794	0.6
Mechanical Power	803	0.6	4321	3.7	13339	6.7	3755	2.8
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	8460	6.7	6769	5.8	18382	9.3	9564	7.1
Fertilizer	4919	3.9	7442	6.3	13250	6.7	6932	5.1
Irrigation Charges	452	0.4	1797	1.5	5080	2.6	1554	1.2
Plant Protection Charges	10079	8.0	7122	6.1	14581	7.4	9977	7.4
Incidental charges	3418	2.7	7959	6.8	13262	6.7	6226	4.6
Repairs on Farm Implements	40	0.0	113	0.1	224	0.1	89	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	3197	2.5	3046	2.6	5942	3.0	3590	2.7
Depreciation	3178	2.5	3028	2.6	5906	3.0	3569	2.6
Land Revenue and Other Taxes	30	0.0	28	0.0	55	0.0	33	0.0
Rental Value of Land	55713	44.2	47040	40.1	69080	34.9	55440	41.1
Interest on Fixed Capital	1771	1.4	1687	1.4	3291	1.7	1988	1.5
Amortization Cost	2027	1.6	4575	3.9	6080	3.1	3370	2.5
Total Cost	**126115**	**100.0**	**117237**	**100.0**	**197654**	**100.0**	**134990**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Mandarin cultivation for different size groups are given in table T.27.2. The total cost of cultivation (Cost C2) per hectare of Mandarin amounted to an average of ₹ 134990 at State level. On an average, Cost A1 was ₹ 67027, which was highest on small farms (₹ 110935) and lowest on medium farms (₹ 56878). Here, the table clearly indicated high investment by small farms in cultivation of Mandarin per hectare compared to other farms categories.

Table T.27.2 Different cost concepts basis on different size holdings of Mandarin (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	59694	56878	110935	67027
Cost A_2	59694	56878	110935	67027
Cost B_1	61465	58565	114226	69015
Cost B_2	119205	110179	189385	127825
Cost C_1	68375	65622	122495	76180
Cost C_2	126115	117237	197654	134990
Cost C_3	138726	128960	217419	148489

Income measures

A comparison of various income measures from Mandarin cultivation are given in table T.27.3.

Table T.27.3 Returns from cultivation of Mandarin on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	274763	225530	303874	265814
Farm Business Income	274763	225530	303874	265814
Family Labour Income	215252	172229	225423	205016
Net Income	208342	165172	217155	197851
Returns to Management	195731	153448	197390	184352
Benefit Cost Ratio	2.65	2.41	2.10	2.47

Returns over variable cost varied between ₹ 225530 to ₹ 303874 as shown in the above table. The family labour income per hectare of Mandarin cultivation varied from ₹ 172229 in medium farms to ₹ 225423 in large farms. On an average, family labour income was worked out to be ₹ 205016 per hectare. The overall net income from Mandarin cultivation was ₹ 197851 per hectare, wherein net income of small farms was highest (₹ 217155) and lowest for medium farms (₹ 165172). The overall returns to management from Mandarin cultivation was ₹ 184352 per hectare. Benefit cost ratio of large farms was highest (2.65) followed by medium farms (2.41) and small farms (2.10). Hence, it indicated that with the benefit cost ratio of 2.47, the cultivation of Mandarin per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Mandarin across different land size categories is given in table T.27.4. On an average, ₹ 828 was spent on producing a quintal of Mandarin on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1013) followed by medium farms (₹ 792) and large farms (₹ 782) per quintal. This indicated that in case of Mandarin production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.27.4 Cost of production of Mandarin on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	370	384	569	411
Cost A_2	370	384	569	411
Cost B_1	381	396	585	423
Cost B_2	739	744	971	784
Cost C_1	424	443	628	467
Cost C_2	782	792	1013	828
Cost C_3	860	871	1114	911

***

28. Grapes

Cost structure

The table T.28.1 shows the breakup of the cost incurred by different size groups in various operations of Grapes cultivation. On an average, ₹ 541305 was spent on Grapes per hectare. Cost of cultivation of small farm category was highest, ₹ 884659 followed by medium farms (₹ 578134) and large farms (₹ 503982). Among the different components of cost of cultivation, contribution of Plant Protection Charges was highest (19.6 per cent) followed by human labour (11.4 per cent) and Fertilizers (10.0 per cent). Small farms had spent ₹ 119975 and ₹ 323071 on human labour and Plant Protection Charges respectively, which was exponentially high compared to medium farms (₹ 73606 and ₹ 105448) and large farms category (₹ 54436 and ₹ 88600).

Table T.28.1 Item-wise break up of cost of cultivation/ha. of Grapes Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	46424	9.2	61907	10.7	83411	9.4	51646	9.5
Family	8012	1.6	11700	2.0	36564	4.1	10450	1.9
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	13661	2.7	19446	3.4	11835	1.3	14666	2.7
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	10166	2.0	13812	2.4	25371	2.9	11788	2.2
Fertilizer	53203	10.6	57197	9.9	59929	6.8	54379	10.0
Irrigation Charges	1686	0.3	5327	0.9	10389	1.2	2914	0.5
Plant Protection Charges	88600	17.6	105448	18.2	323071	36.5	106033	19.6
Incidental charges	8839	1.8	12462	2.2	31357	3.5	10900	2.0
Repairs on Farm Implements	158	0.0	234	0.0	403	0.0	188	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	13364	2.7	16550	2.9	32746	3.7	15151	2.8
Depreciation	13284	2.6	16451	2.8	32550	3.7	15060	2.8
Land Revenue and Other Taxes	124	0.0	154	0.0	305	0.0	141	0.0
Rental Value of Land	168159	33.4	174320	30.2	162370	18.4	168996	31.2
Interest on Fixed Capital	7402	1.5	9166	1.6	18136	2.1	8391	1.6
Amortization Cost	70901	14.1	73961	12.8	56223	6.4	70603	13.0
Total Cost	**503982**	**100.0**	**578134**	**100.0**	**884659**	**100.0**	**541305**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Grapes cultivation for different size groups are given in table T.28.2. The total cost of cultivation (Cost C2) per hectare of Grapes amounted to an average of ₹ 541305 at State level. On an average, Cost A1 was ₹ 282866, which was highest on small farms (₹ 611366) and lowest on large farms (₹ 249509). Here, the table clearly depicted high cost incurred by small farms in cultivation of Grapes per hectare compared to other farms categories.

Table T.28.2 Different cost concepts basis on different size holdings of Grapes (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	249509	308988	611366	282866
Cost A_2	249509	308988	611366	282866
Cost B_1	256910	318153	629502	291257
Cost B_2	495970	566435	848094	530855
Cost C_1	264922	329853	666066	301707
Cost C_2	503982	578134	884659	541305
Cost C_3	554380	635948	973125	595436

Income measures

A comparison of various income measures from Grapes cultivation are given in table T.28.3.

Table T.28.3 Returns from cultivation of Grapes on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	760188	737858	364680	731956
Farm Business Income	760188	737858	364680	731956
Family Labour Income	513727	480411	127952	483966
Net Income	505716	468712	91388	473516
Returns to Management	455318	410898	2922	419386
Benefit Cost Ratio	2.00	1.81	1.10	1.87

Returns over variable cost varied between ₹ 364680 to ₹ 760188 as shown in the above table. The family labour income per hectare of Grapes cultivation varied from ₹ 127952 in small farms to ₹ 513727 in large farms. On an average, family labour income was worked out to be ₹ 483966 per hectare. The overall net income from Grapes cultivation was ₹ 473516 per hectare, wherein net income of large farms was highest (₹ 505716) and lowest for small farms (₹ 91388). The overall returns to management from Grapes cultivation was ₹ 419386 per hectare. Benefit cost ratio of large farms was highest (2.00) followed by medium farms (1.81) and small farms (1.10). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Grapes across different land size categories is given in table T.28.4. On an average, ₹ 2030 was spent on producing a quintal of Grapes on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 3686) followed by medium farms (₹ 2051) and large farms (₹ 1902) per quintal. This indicated that in case of Grapes production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.28.4 Cost of production of Grapes on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	942	1096	2547	1061
Cost A_2	942	1096	2547	1061
Cost B_1	970	1129	2623	1092
Cost B_2	1872	2010	3534	1991
Cost C_1	1000	1170	2775	1131
Cost C_2	1902	2051	3686	2030
Cost C_3	2093	2256	4055	2233

***

29. Mango

Cost structure

The table T.29.1 shows the breakup of the cost incurred by different size groups in various operations of Mango cultivation. On an average, ₹ 276007 was spent on Mango per hectare. Cost of cultivation of small farm category was highest, ₹ 324000 followed by medium farms (₹ 267537) and large farms (₹ 266115). Among the different components of cost of cultivation, contribution of human labour was highest (19.7 per cent) followed by Plant Protection Charges (15.0 per cent). Small farms had spent ₹ 70370 on human labour, which was exponentially high compared to large farms (₹ 54426) and medium farms category (₹ 46707).

Table T.29.1 Item-wise break up of cost of cultivation/ha. of Mango Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	29016	10.9	23884	8.9	46052	14.2	30002	10.9
Family	25410	9.5	22823	8.5	24319	7.5	24335	8.8
Bullock Pair	10824	4.1	8385	3.1	4260	1.3	8912	3.2
Mechanical Power	6686	2.5	6733	2.5	6664	2.1	6699	2.4
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	21061	7.9	16466	6.2	28238	8.7	20632	7.5
Fertilizer	13550	5.1	11025	4.1	9487	2.9	12014	4.4
Irrigation Charges	2600	1.0	4440	1.7	5696	1.8	3741	1.4
Plant Protection Charges	41076	15.4	40948	15.3	42983	13.3	41341	15.0
Incidental charges	15871	6.0	17275	6.5	12667	3.9	15838	5.7
Repairs on Farm Implements	52	0.0	126	0.0	307	0.1	119	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	8444	3.2	7757	2.9	9381	2.9	8358	3.0
Depreciation	651	0.2	598	0.2	724	0.2	645	0.2
Land Revenue and Other Taxes	54	0.0	50	0.0	60	0.0	54	0.0
Rental Value of Land	82510	31.0	95891	35.8	113072	34.9	92114	33.4
Interest on Fixed Capital	869	0.3	798	0.3	965	0.3	860	0.3
Amortization Cost	7440	2.8	10338	3.9	19126	5.9	10343	3.7
Total Cost	**266115**	**100.0**	**267537**	**100.0**	**324000**	**100.0**	**276007**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Mango cultivation for different size groups are given in table T.29.2. The total cost of cultivation (Cost C2) per hectare of Mango amounted to an average of ₹ 276007 at State level. On an average, Cost A1 was ₹ 148356, which was highest on small farms (₹ 166518) and lowest on medium farms (₹ 137687). Here, the table clearly indicated high investment by small farms in cultivation of Mango per hectare compared to other farms categories.

Table T.29.2 Different cost concepts basis on different size holdings of Mango (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	149887	137687	166518	148356
Cost A_2	149887	137687	166518	148356
Cost B_1	150755	138485	167483	149215
Cost B_2	240705	244715	299681	251672
Cost C_1	176165	161308	191802	173551
Cost C_2	266115	267537	324000	276007
Cost C_3	292726	294291	356400	303608

Income measures

A comparison of various income measures from Mango cultivation are given in table T.29.3.

Table T.29.3 Returns from cultivation of Mango on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	345498	437961	512277	404650
Farm Business Income	345498	437961	512277	404650
Family Labour Income	254680	330933	379114	301334
Net Income	229270	308111	354795	276998
Returns to Management	202658	281357	322395	249398
Benefit Cost Ratio	1.86	2.15	2.10	2.00

Returns over variable cost varied between ₹ 345498 to ₹ 512277 as shown in the above table. The family labour income per hectare of Mango cultivation varied from ₹ 254680 in large farms to ₹ 379114 in small farms. On an average, family labour income was worked out to be ₹ 301334 per hectare. The overall net income from Mango cultivation was ₹ 276998 per hectare, wherein net income of small farms was highest (₹ 354795) and lowest for large farms (₹ 229270). The overall returns to management from Mango cultivation was ₹ 249398 per hectare. Benefit cost ratio of medium farms was highest (2.15) followed by small farms (2.10) and large farms (1.86). Hence, it indicated that with the benefit cost ratio of 2.00, the cultivation of Mango per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Mango across different land size categories is given in table T.29.4. On an average, ₹ 2741 was spent on producing a quintal of Mango on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 3086) followed by medium farms (₹ 2623) and small farms (₹ 2290) per quintal. This indicated that in case of Mango production, small farms were more efficient and had economies of scale on their farms as compared to large and medium farms.

Table T.29.4 Cost of production of Mango on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1738	1350	1177	1474
Cost A_2	1738	1350	1177	1474
Cost B_1	1748	1358	1184	1482
Cost B_2	2791	2399	2118	2500
Cost C_1	2043	1581	1356	1724
Cost C_2	3086	2623	2290	2741
Cost C_3	3394	2885	2519	3016

***

30. Sapota

Cost structure

The table T.30.1 shows the breakup of the cost incurred by different size groups in various operations of Sapota cultivation. On an average, ₹ 207558 was spent on Sapota per hectare. Cost of cultivation of small farm category was highest, ₹ 267331 followed by medium farms (₹ 218929) and large farms (₹ 196557). Among the different components of cost of cultivation, contribution of human labour was highest (24.2 per cent) followed by Manure (16.1 per cent) and Mechanical Power (9.7 per cent). Small farms had spent ₹ 78134 and ₹ 42411 on human labour and Plant Protection Charges respectively, which was noticeably high compared to medium farms (₹ 52626 and ₹ 22873) and large farms category (₹ 47128 and ₹ 13014).

Table T.30.1 Item-wise break up of cost of cultivation/ha. of Sapota Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	32065	16.3	37169	17.0	44317	16.6	34449	16.6
Family	15062	7.7	15456	7.1	33817	12.6	15823	7.6
Bullock Pair	1005	0.5	1113	0.5	0	0.0	1015	0.5
Mechanical Power	18121	9.2	22858	10.4	20558	7.7	20044	9.7
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	36749	18.7	27774	12.7	40134	15.0	33364	16.1
Fertilizer	10778	5.5	11549	5.3	33181	12.4	11803	5.7
Irrigation Charges	1707	0.9	2847	1.3	0	0.0	2096	1.0
Plant Protection Charges	13014	6.6	22873	10.4	42411	15.9	17804	8.6
Incidental charges	10263	5.2	18839	8.6	0	0.0	13270	6.4
Repairs on Farm Implements	35	0.0	56	0.0	241	0.1	50	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	7424	3.8	8705	4.0	10851	4.1	8034	3.9
Depreciation	718	0.4	841	0.4	1049	0.4	776	0.4
Land Revenue and Other Taxes	72	0.0	84	0.0	105	0.0	78	0.0
Rental Value of Land	46104	23.5	45034	20.6	35948	13.4	45359	21.9
Interest on Fixed Capital	718	0.4	841	0.4	1049	0.4	776	0.4
Amortization Cost	2722	1.4	2890	1.3	3672	1.4	2818	1.4
Total Cost	**196557**	**100.0**	**218929**	**100.0**	**267331**	**100.0**	**207558**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Sapota cultivation for different size groups are given in table T.30.2. On an average, Cost A1 was ₹ 142782, which was highest on small farms (₹ 192846) and lowest on large farms (₹ 131951). The total cost of cultivation (Cost C2) per hectare of Sapota amounted to an average of ₹ 207558 at State level. Here, the table describes investment of small farms highest compared to other farms categories in cultivation of Sapota per hectare.

Table T.30.2 Different cost concepts basis on different size holdings of Sapota (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	131951	154708	192846	142782
Cost A_2	131951	154708	192846	142782
Cost B_1	132669	155550	193895	143559
Cost B_2	181494	203473	233514	191735
Cost C_1	147731	171006	227711	159381
Cost C_2	196557	218929	267331	207558
Cost C_3	216213	240822	294064	228313

Income measures

A comparison of various income measures from Sapota cultivation are given in table T.30.3.

Table T.30.3 Returns from cultivation of Sapota on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	145100	116001	23472	129835
Farm Business Income	145100	116001	23472	129835
Family Labour Income	95557	67236	-17196	80882
Net Income	80495	51780	-51013	65059
Returns to Management	60839	29887	-77746	44304
Benefit Cost Ratio	1.41	1.24	0.81	1.31

Returns over variable cost varied between ₹ 23472 to ₹ 145100 as shown in the above table. The family labour income per hectare of Sapota cultivation varied with a loss of ₹ 17196 in small farms to ₹ 95557 in large farms. On an average, family labour income was worked out to be ₹ 80882 per hectare. The overall net income from Sapota cultivation was ₹ 65059 per hectare, wherein net income of large farms was highest (₹ 80495) and non-beneficial for small farms with a loss of ₹ 51013. The overall returns to management from Sapota cultivation turned out to be ₹ 44304 per hectare. Benefit cost ratio of large farms was highest (1.41) followed by medium farms (1.24) and small farms (0.81). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Sapota across different land size categories is given in table T.30.4. On an average, ₹ 1479 was spent on producing a quintal of Sapota on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 3651) followed by medium farms (₹ 1559) and large farms (₹ 1364) per quintal. This indicated that in case of Sapota production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.30.4 Cost of production of Sapota on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	916	1102	2634	1017
Cost A_2	916	1102	2634	1017
Cost B_1	921	1108	2648	1023
Cost B_2	1260	1449	3189	1366
Cost C_1	1026	1218	3110	1136
Cost C_2	1364	1559	3651	1479
Cost C_3	1501	1715	4016	1627

***

31. Sweet Orange

Cost structure

The table T.31.1 shows the breakup of the cost incurred by different size groups in various operations of Sweet Orange cultivation. On an average, ₹ 149319 was spent on Sweet Orange per hectare. Cost of cultivation of small farm category was highest, ₹ 158221 followed by medium farms (₹ 155831) and large farms (₹ 136397). Among the different components of cost of cultivation, contribution of human labour was highest (25.6 per cent) followed by Fertilizers (6.7 per cent). Small farms had spent ₹ 11687 on Incidental Charges, which was high compared to medium farms (₹ 10766) and large farms category (₹ 7612).

Table T.31.1 Item-wise break up of cost of cultivation/ha. of Sweet Orange Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	31667	23.2	36632	23.5	29095	18.4	33484	22.4
Family	3194	2.3	3896	2.5	9911	6.3	4741	3.2
Bullock Pair	221	0.2	588	0.4	338	0.2	411	0.3
Mechanical Power	2451	1.8	1786	1.1	3912	2.5	2411	1.6
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	4402	3.2	3647	2.3	11807	7.5	5403	3.6
Fertilizer	11985	8.8	9315	6.0	7922	5.0	10016	6.7
Irrigation Charges	1935	1.4	2190	1.4	3561	2.3	2348	1.6
Plant Protection Charges	7908	5.8	9635	6.2	8462	5.3	8804	5.9
Incidental charges	7612	5.6	10766	6.9	11687	7.4	9807	6.6
Repairs on Farm Implements	139	0.1	162	0.1	194	0.1	160	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4099	3.0	4483	2.9	4619	2.9	4371	2.9
Depreciation	4075	3.0	4456	2.9	4591	2.9	4344	2.9
Land Revenue and Other Taxes	38	0.0	42	0.0	43	0.0	41	0.0
Rental Value of Land	48735	35.7	59085	37.9	54275	34.3	54509	36.5
Interest on Fixed Capital	2270	1.7	2483	1.6	2558	1.6	2421	1.6
Amortization Cost	5667	4.2	6665	4.3	5248	3.3	6050	4.1
Total Cost	**136397**	**100.0**	**155831**	**100.0**	**158221**	**100.0**	**149319**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Sweet Orange cultivation for different size groups are given in table T.31.2. On an average, Cost A1 was ₹ 81600, which was highest on small farms (₹ 86230) and lowest on large farms (₹ 76532). The total cost of cultivation (Cost C2) per hectare of Sweet Orange amounted to an average of ₹ 149319 at State level. Here, the table describes investment of small farms higher compared to other farms categories in cultivation of Sweet Orange per hectare.

Table T.31.2 Different cost concepts basis on different size holdings of Sweet Orange (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	76532	83702	86230	81600
Cost A_2	76532	83702	86230	81600
Cost B_1	78802	86185	88788	84020
Cost B_2	133203	151935	148310	144579
Cost C_1	81996	90082	98699	88761
Cost C_2	136397	155831	158221	149319
Cost C_3	150037	171414	174043	164251

Income measures

A comparison of various income measures from Sweet Orange cultivation are given in table T.31.3.

Table T.31.3 Returns from cultivation of Sweet Orange on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	216104	271056	239677	245696
Farm Business Income	216104	271056	239677	245696
Family Labour Income	159433	202824	177596	182717
Net Income	156239	198928	167685	177976
Returns to Management	142599	183344	151863	163044
Benefit Cost Ratio	2.15	2.28	2.06	2.19

Returns over variable cost varied between ₹ 216104 to ₹ 271056 as shown in the above table. The family labour income per hectare of Sweet Orange cultivation varied from ₹ 159433 in large farms to ₹ 202824 in medium farms. On an average, family labour income was worked out to be ₹ 182717 per hectare. The overall net income from Sweet Orange cultivation was ₹ 177976 per hectare, wherein net income of medium farms was highest (₹198928) and lowest for large farms (₹ 156239). The overall returns to management from Sweet Orange cultivation was ₹ 163044 per hectare. Benefit cost ratio of medium farms was highest (2.28) followed by large farms (2.15) and small farms (2.06). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than small and large farms.

Cost of production per quintal

The cost of production of Sweet Orange across different land size categories is given in table T.31.4. On an average, ₹ 964 was spent on producing a quintal of Sweet Orange on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1013) followed by small farms (₹ 1011) and medium farms (₹ 917) per quintal. This indicated that in case of Sweet Orange production, medium farms were more efficient and had economies of scale on their farms as compared to small and large farms.

Table T.31.4 Cost of production of Sweet Orange on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	568	492	551	527
Cost A_2	568	492	551	527
Cost B_1	585	507	568	543
Cost B_2	989	894	948	934
Cost C_1	609	530	631	573
Cost C_2	1013	917	1011	964
Cost C_3	1114	1009	1112	1061

***

32. Papaya

Cost structure

The table T.32.1 shows the breakup of the cost incurred by different size groups in various operations of Papaya cultivation. On an average, ₹ 246856 was spent on Papaya per hectare. Cost of cultivation of medium farm category was highest, ₹ 255144 followed by large farms (₹ 248375) and small farms (₹ 214499). Among the different components of cost of cultivation, contribution of human labour was highest (14.4 per cent) followed by Fertilizers (14.3 per cent) and Seed (9.6 per cent). Medium farms had spent ₹ 44102 and ₹ 43899 on human labour and Seed & Manure respectively, which was considerably high compared to small farms (₹ 38058 and ₹ 35275) and large farms category (₹ 32464 and ₹ 34728).

Table T.32.1 Item-wise break up of cost of cultivation/ha. of Papaya Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	21741	8.8	28332	11.1	18915	8.8	22995	9.3
Family	10722	4.3	15770	6.2	19143	8.9	12642	5.1
Bullock Pair	1874	0.8	1774	0.7	2833	1.3	1938	0.8
Mechanical Power	9234	3.7	14778	5.8	12355	5.8	10787	4.4
Seed	20357	8.2	33256	13.0	24855	11.6	23719	9.6
Manure	14371	5.8	10643	4.2	10420	4.9	13159	5.3
Fertilizer	46712	18.8	11475	4.5	8805	4.1	35205	14.3
Irrigation Charges	1801	0.7	2435	1.0	5420	2.5	2274	0.9
Plant Protection Charges	7795	3.1	9721	3.8	6972	3.3	8162	3.3
Incidental charges	14454	5.8	12728	5.0	12965	6.0	13924	5.6
Repairs on Farm Implements	68	0.0	184	0.1	492	0.2	133	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	8305	3.3	7520	2.9	6242	2.9	7938	3.2
Depreciation	8255	3.3	7475	2.9	6205	2.9	7890	3.2
Land Revenue and Other Taxes	77	0.0	70	0.0	58	0.0	74	0.0
Rental Value of Land	78008	31.4	94819	37.2	75362	35.1	81619	33.1
Interest on Fixed Capital	4599	1.9	4165	1.6	3457	1.6	4396	1.8
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**248375**	**100.0**	**255144**	**100.0**	**214499**	**100.0**	**246856**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Papaya cultivation for different size groups are given in table T.32.2. The table shows that total cost of cultivation (Cost C2) per hectare of gram amounted to ₹ 248375, ₹ 255144 and ₹ 214499 on large, medium and small farms respectively with an average of ₹ 246856 at State level. Visibly, Cost A1 to Cost C3 were highest for large and medium farms compared to small farms.

Table T.32.2 Different cost concepts basis on different size holdings of Papaya (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	155045	140391	116537	148199
Cost A_2	155045	140391	116537	148199
Cost B_1	159644	144555	119994	152595
Cost B_2	237652	239375	195356	234214
Cost C_1	170367	160325	139137	165236
Cost C_2	248375	255144	214499	246856
Cost C_3	273212	280658	235949	271541

Income measures

A comparison of various income measures from Papaya cultivation are given in table T.32.3.

Table T.32.3 Returns from cultivation of Papaya on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	313466	428944	335981	341960
Farm Business Income	313466	428944	335981	341960
Family Labour Income	230859	329960	257163	255945
Net Income	220137	314190	238019	243303
Returns to Management	195299	288676	216569	218618
Benefit Cost Ratio	1.89	2.23	2.11	1.99

Returns over variable cost varied between ₹ 313466 to ₹ 428944 as shown in the above table. The family labour income per hectare of Papaya cultivation varied from ₹ 230859 in large farms to ₹ 329960 in medium farms. On an average, family labour income was worked out to be ₹ 255945 per hectare. The overall net income from Papaya cultivation was ₹ 243303 per hectare, wherein net income of medium farms was highest (₹ 314190) and lowest for large farms (₹ 220137). The overall returns to management from Papaya cultivation was ₹ 218618 per hectare. Benefit cost ratio of medium farms was highest (2.23) followed by small farms (2.11) and large farms (1.89). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than small and large farms.

Cost of production per quintal

The cost of production of Papaya across different land size categories is given in table T.32.4. On an average, ₹ 447 was spent on producing a quintal of Papaya on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 520) followed by medium farms (₹ 346) and small farms (₹ 333) per quintal. This indicated that in case of Papaya production, small farms had economies of scale on their farms as compared to medium and large farms.

Table T.32.4 Cost of production of Papaya on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	325	190	181	268
Cost A_2	325	190	181	268
Cost B_1	334	196	186	276
Cost B_2	498	324	304	424
Cost C_1	357	217	216	299
Cost C_2	520	346	333	447
Cost C_3	572	380	367	492

***

33. Guava

Cost structure

The table T.33.1 shows the breakup of the cost incurred by different size groups in various operations of Guava cultivation. On an average, ₹ 187191 was spent on Guava per hectare. Cost of cultivation of small farm category was highest, ₹ 228926 followed by medium farms (₹ 185697) and large farms (₹ 184639). Among the different components of cost of cultivation, contribution of human labour was highest (22.9 per cent) followed by Plant Protection Charges (12.2 per cent) and Mechanical Power (11.3 per cent). Small farms had spent ₹ 45537 on Plant Protection Charges, which was exponentially high compared to medium farms (₹ 28562) and large farms category (₹ 16922).

Table T.33.1 Item-wise break up of cost of cultivation/ha. of Guava Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	30553	16.5	17846	9.6	32464	14.2	25594	13.7
Family	17625	9.5	16469	8.9	18981	8.3	17231	9.2
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	16993	9.2	26522	14.3	23555	10.3	21097	11.3
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	7995	4.3	8805	4.7	12111	5.3	8515	4.5
Fertilizer	5544	3.0	4493	2.4	4704	2.1	5086	2.7
Irrigation Charges	908	0.5	1200	0.6	921	0.4	1025	0.5
Plant Protection Charges	16922	9.2	28562	15.4	45537	19.9	22926	12.2
Incidental charges	5348	2.9	3971	2.1	6278	2.7	4846	2.6
Repairs on Farm Implements	43	0.0	50	0.0	107	0.0	49	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5058	2.7	5487	3.0	7541	3.3	5348	2.9
Depreciation	5028	2.7	5454	2.9	7495	3.3	5316	2.8
Land Revenue and Other Taxes	47	0.0	51	0.0	70	0.0	50	0.0
Rental Value of Land	65241	35.3	58788	31.7	59652	26.1	62407	33.3
Interest on Fixed Capital	2802	1.5	3039	1.6	4176	1.8	2962	1.6
Amortization Cost	4531	2.5	4960	2.7	5335	2.3	4740	2.5
Total Cost	**184639**	**100.0**	**185697**	**100.0**	**228926**	**100.0**	**187191**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Guava cultivation for different size groups are given in table T.33.2. Cost of cultivation right from Cost A1 to Cost C3 of small farms is highest compared to other farms categories. The total cost of cultivation (Cost C2) per hectare of Guava amounted to an average of ₹ 187191 at State level. Here, the table visibly specifies high investment by small farms whereas least investment done by large farms in cultivation of Guava per hectare.

Table T.33.2 Different cost concepts basis on different size holdings of Guava (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	94440	102442	140782	99851
Cost A_2	94440	102442	140782	99851
Cost B_1	97242	105480	144958	102813
Cost B_2	167014	169229	209945	169960
Cost C_1	114867	121949	163940	120044
Cost C_2	184639	185697	228926	187191
Cost C_3	203103	204267	251819	205910

Income measures

A comparison of various income measures from Guava cultivation are given in table T.33.3.

Table T.33.3 Returns from cultivation of Guava on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	297286	250594	217551	274889
Farm Business Income	297286	250594	217551	274889
Family Labour Income	224713	183807	148388	204779
Net Income	207087	167339	129407	187548
Returns to Management	188623	148769	106514	168829
Benefit Cost Ratio	2.12	1.90	1.57	2.00

Returns over variable cost varied between ₹ 217551 to ₹ 297286 as shown in the above table. The family labour income per hectare of Guava cultivation varied from ₹ 148388 in small farms to ₹ 224713 in large farms. On an average, family labour income was worked out to be ₹ 204779 per hectare. The overall net income from Guava cultivation was ₹ 187548 per hectare, wherein net income of large farms was highest (₹ 207087) and lowest for small farms (₹ 129407). The overall returns to management from Guava cultivation was ₹ 168829 per hectare. Benefit cost ratio of large farms was highest (2.12) followed by medium farms (1.90) and small farms (1.57). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Guava across different land size categories is given in table T.33.4. On an average, ₹ 1091 was spent on producing a quintal of Guava on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1315) followed by medium farms (₹ 1092) and large farms (₹ 1070) per quintal. This indicated that in case of Guava production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.33.4 Cost of production of Guava on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	547	602	809	582
Cost A_2	547	602	809	582
Cost B_1	564	620	833	599
Cost B_2	968	995	1206	990
Cost C_1	666	717	942	700
Cost C_2	1070	1092	1315	1091
Cost C_3	1177	1201	1447	1200

***

34. Custard Apple

Cost structure

The table T.34.1 shows the breakup of the cost incurred by different size groups in various operations of Custard Apple cultivation. On an average, ₹ 149679 was spent on Custard Apple per hectare. Cost of cultivation of small farm category was highest, ₹ 177851 followed by large farms (₹ 161616) and medium farms (₹ 128179). Among the different components of cost of cultivation, contribution of human labour was highest (14.2 per cent) followed by Manure (12.8 per cent). Small farms had spent ₹ 27191 and ₹ 14775 on human labour and Fertilizers respectively, which was high compared to large farms (₹ 25654 and ₹ 13308) and medium farms category (₹ 16473 and ₹ 11732).

Table T.34.1 Item-wise break up of cost of cultivation/ha. of Custard Apple Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	17192	10.6	12455	9.7	13307	7.5	13221	8.8
Family	8462	5.2	4017	3.1	13884	7.8	8078	5.4
Bullock Pair	1538	1.0	788	0.6	1419	0.8	1092	0.7
Mechanical Power	8846	5.5	4610	3.6	8835	5.0	6571	4.4
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	20962	13.0	18712	14.6	19333	10.9	19156	12.8
Fertilizer	13308	8.2	11732	9.2	14775	8.3	13004	8.7
Irrigation Charges	2010	1.2	2858	2.2	6818	3.8	4236	2.8
Plant Protection Charges	12385	7.7	5795	4.5	13244	7.4	9169	6.1
Incidental charges	5212	3.2	5063	3.9	7593	4.3	6009	4.0
Repairs on Farm Implements	93	0.1	172	0.1	318	0.2	218	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4893	3.0	3731	2.9	5138	2.9	4361	2.9
Depreciation	4863	3.0	3709	2.9	5108	2.9	4335	2.9
Land Revenue and Other Taxes	45	0.0	35	0.0	48	0.0	41	0.0
Rental Value of Land	18884	11.7	26268	20.5	41370	23.3	31129	20.8
Interest on Fixed Capital	2710	1.7	2066	1.6	2846	1.6	2415	1.6
Amortization Cost	40214	24.9	26168	20.4	23817	13.4	26642	17.8
Total Cost	**161616**	**100.0**	**128179**	**100.0**	**177851**	**100.0**	**149679**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Custard Apple cultivation for different size groups are given in table T.34.2. The total cost of cultivation (Cost C2) per hectare of Custard Apple amounted to an average of ₹ 149679 at State level. On an average, Cost A1 was ₹ 81414, which was highest on small farms (₹ 95934) and lowest on medium farms (₹ 69659). Here, the table clearly indicated high investment of small farms in cultivation of Custard Apple per hectare compared to other farms categories.

Table T.34.2 Different cost concepts basis on different size holdings of Custard Apple (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	91347	69659	95934	81414
Cost A_2	91347	69659	95934	81414
Cost B_1	94057	71725	98780	83829
Cost B_2	153154	124162	163967	141600
Cost C_1	102518	75743	112665	91907
Cost C_2	161616	128179	177851	149679
Cost C_3	177777	140997	195636	164646

Income measures

A comparison of various income measures from Custard Apple cultivation are given in table T.34.3.

Table T.34.3 Returns from cultivation of Custard Apple on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	22229	88159	152571	105607
Farm Business Income	22229	88159	152571	105607
Family Labour Income	-39578	33656	84538	45420
Net Income	-48039	29639	70654	37342
Returns to Management	-64201	16821	52869	22374
Benefit Cost Ratio	0.70	1.23	1.40	1.25

Returns over variable cost varied between ₹ 22229 to ₹ 152571 as shown in the above table. The family labour income per hectare of Custard Apple cultivation varied from loss of ₹ 39578 in large farms to ₹ 84538 in small farms. On an average, family labour income was worked out to be ₹ 45420 per hectare. The overall net income from Custard Apple cultivation was ₹ 37342 per hectare. The overall returns to management from Custard Apple cultivation turned out to be ₹ 22374 per hectare. Benefit cost ratio of small farms was highest (1.40) followed by medium farms (1.23) and large farms (0.70). Overall, it indicated that inspite of varied level of investment by different size of farms, small farms were more efficient than medium and large farms.

Cost of production per quintal

The cost of production of Custard Apple across different land size categories is given in table T.34.4. On an average, ₹ 3488 was spent on producing a quintal of Custard Apple on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 4470) followed by small farms (₹ 3942) and medium farms (₹ 3009) per quintal. This indicated that in case of Custard Apple production, medium farms had economies of scale on their farms as compared to small and large farms.

Table T.34.4 Cost of production of Custard Apple on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	2527	1635	2126	1897
Cost A_2	2527	1635	2126	1897
Cost B_1	2602	1684	2189	1953
Cost B_2	4236	2914	3634	3300
Cost C_1	2836	1778	2497	2142
Cost C_2	4470	3009	3942	3488
Cost C_3	4917	3310	4336	3837

***

35. Fig

Cost structure

The table T.35.1 shows the breakup of the cost incurred by different size groups in various operations of Fig cultivation. On an average, ₹ 646443 was spent on Fig per hectare. Cost of cultivation of large farm category was highest, ₹ 722892 followed by medium farms (₹ 589871). Sample for this crop was not available in small farms during study. Among the different components of cost of cultivation, contribution of Fertilizers was highest (12.6 per cent) followed by human labour (10.1 per cent) and Plant Protection Charges (9.4 per cent). Large farms had spent ₹ 88912 and ₹ 155735 on human labour and Manure & Fertilizers respectively, which was exponentially high compared to medium farms category (₹ 47810 and ₹ 115566).

Table T.35.1 Item-wise break up of cost of cultivation/ha. of Fig Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	49696	6.9	18490	3.1	--	--	31761	4.9
Family	39216	5.4	29320	5.0	--	--	33529	5.2
Bullock Pair	0	0.0	0	0.0	--	--	0	0.0
Mechanical Power	26655	3.7	13250	2.2	--	--	18951	2.9
Seed	0	0.0	0	0.0	--	--	0	0.0
Manure	61486	8.5	43660	7.4	--	--	51241	7.9
Fertilizer	94249	13.0	71906	12.2	--	--	81408	12.6
Irrigation Charges	2075	0.3	1858	0.3	--	--	1950	0.3
Plant Protection Charges	77635	10.7	47872	8.1	--	--	60530	9.4
Incidental charges	19014	2.6	15210	2.6	--	--	16828	2.6
Repairs on Farm Implements	69	0.0	179	0.0	--	--	132	0.0
Insurance Premium	0	0.0	0	0.0	--	--	0	0.0
Rab Material	0	0.0	0	0.0	--	--	0	0.0
Interest on working Capital	19853	2.7	12745	2.2	--	--	15768	2.4
Depreciation	19734	2.7	12669	2.1	--	--	15674	2.4
Land Revenue and Other Taxes	185	0.0	119	0.0	--	--	147	0.0
Rental Value of Land	277477	38.4	296423	50.3	--	--	288366	44.6
Interest on Fixed Capital	10995	1.5	7059	1.2	--	--	8733	1.4
Amortization Cost	24553	3.4	19111	3.2	--	--	21425	3.3
Total Cost	**722892**	**100.0**	**589871**	**100.0**	**--**	**--**	**646443**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Fig cultivation for different size groups are given in table T.35.2. Cost of cultivation right from Cost A1 to Cost C3 of large farms was highest compared to medium farms. The total cost of cultivation (Cost C2) per hectare of Fig amounted to an average of ₹ 646443 at State level. Here, the table visibly specifies investment of large farm to be higher compared to medium farms in cultivation of Fig per hectare.

Table T.35.2 Different cost concepts basis on different size holdings of Fig (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	370650	237958	--	294390
Cost A_2	370650	237958	--	294390
Cost B_1	381645	245017	--	303123
Cost B_2	683676	560551	--	612914
Cost C_1	420861	274337	--	336652
Cost C_2	722892	589871	--	646443
Cost C_3	795182	648858	--	711087

Income measures

A comparison of various income measures from Fig cultivation are given in table T.35.3.

Table T.35.3 Returns from cultivation of Fig on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	1295323	1541292	--	1436684
Farm Business Income	1295323	1541292	--	1436684
Family Labour Income	982297	1218699	--	1118160
Net Income	943080	1189379	--	1084632
Returns to Management	870791	1130392	--	1019987
Benefit Cost Ratio	2.30	3.02	--	2.68

Returns over variable cost varied between ₹ 1295323 to ₹ 1541292 as shown in the above table. The family labour income per hectare of Fig cultivation varied from ₹ 982297 in large farms to ₹ 1218699 in medium farms. On an average, family labour income was worked out to be ₹ 1118160 per hectare. The overall net income from Fig cultivation was ₹ 1084632 per hectare. The overall returns to management from Fig cultivation turned out to be ₹ 1019987 per hectare. Benefit cost ratio of medium farms was highest (3.02) followed by large farms (2.30). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than large farms.

Cost of production per quintal

The cost of production of Fig across different land size categories is given in table T.35.4. On an average, ₹ 1699 was spent on producing a quintal of Fig on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1924) followed by medium farms (₹ 1536) per quintal. This indicated that in case of Fig production, medium farms were more efficient and had economies of scale on their farms as compared to large farms.

Table T.35.4 Cost of production of Fig on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	987	620	--	774
Cost A_2	987	620	--	774
Cost B_1	1016	638	--	797
Cost B_2	1820	1460	--	1611
Cost C_1	1120	714	--	885
Cost C_2	1924	1536	--	1699
Cost C_3	2117	1690	--	1869

***

36. Ber

Cost structure

The table T.36.1 shows the breakup of the cost incurred by different size groups in various operations of Ber cultivation. On an average, ₹ 331285 was spent on Ber per hectare. Cost of cultivation of medium farm category was highest, ₹ 331743 followed by large farms (₹ 330717). Sample for this crop was not available in small farms during study. Among the different components of cost of cultivation, contribution of human labour was highest (26.1 per cent) followed by Plant Protection Charges (15.3 per cent) and Mechanical Power (10.7 per cent). Large farms had spent highest ₹ 87052 on human labour, which was higher than that of medium farms category (₹ 86078).

Table T.36.1 Item-wise break up of cost of cultivation/ha. of Ber Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	69007	20.9	67072	20.2	--	--	67935	20.5
Family	18045	5.5	19006	5.7	--	--	18578	5.6
Bullock Pair	0	0.0	0	0.0	--	--	0	0.0
Mechanical Power	35970	10.9	34983	10.5	--	--	35423	10.7
Seed	0	0.0	0	0.0	--	--	0	0.0
Manure	8364	2.5	8707	2.6	--	--	8554	2.6
Fertilizer	24924	7.5	21402	6.5	--	--	22973	6.9
Irrigation Charges	2369	0.7	2679	0.8	--	--	2541	0.8
Plant Protection Charges	47424	14.3	53537	16.1	--	--	50811	15.3
Incidental charges	1576	0.5	1939	0.6	--	--	1777	0.5
Repairs on Farm Implements	23	0.0	34	0.0	--	--	29	0.0
Insurance Premium	0	0.0	0	0.0	--	--	0	0.0
Rab Material	0	0.0	0	0.0	--	--	0	0.0
Interest on working Capital	11379	3.4	11421	3.4	--	--	11403	3.4
Depreciation	11311	3.4	11353	3.4	--	--	11334	3.4
Land Revenue and Other Taxes	106	0.0	106	0.0	--	--	106	0.0
Rental Value of Land	90298	27.3	89833	27.1	--	--	90040	27.2
Interest on Fixed Capital	6302	1.9	6325	1.9	--	--	6315	1.9
Amortization Cost	3617	1.1	3345	1.0	--	--	3466	1.0
Total Cost	**330717**	**100.0**	**331743**	**100.0**	**--**	**--**	**331285**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Ber cultivation for different size groups are given in table T.36.2. The total cost of cultivation (Cost C2) per hectare of Ber amounted to an average of ₹ 331285 at State level. On an average, Cost A1 was ₹ 212886, which was highest on medium farms (₹ 213234) and lowest on large farms (₹ 212453). Here, the table depicts high amount of investment done by medium farms compared to other farms categories in cultivation of Ber per hectare.

Table T.36.2 Different cost concepts basis on different size holdings of Ber (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	212453	213234	--	212886
Cost A_2	212453	213234	--	212886
Cost B_1	218756	219559	--	219201
Cost B_2	312671	312737	--	312707
Cost C_1	236801	238565	--	237779
Cost C_2	330717	331743	--	331285
Cost C_3	363788	364917	--	364414

Income measures

A comparison of various income measures from Ber cultivation are given in table T.36.3.

Table T.36.3 Returns from cultivation of Ber on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	329971	326400	--	327993
Farm Business Income	329971	326400	--	327993
Family Labour Income	229753	226898	--	228171
Net Income	211708	207892	--	209593
Returns to Management	178636	174717	--	176465
Benefit Cost Ratio	1.64	1.63	--	1.63

Returns over variable cost varied between ₹ 326400 to ₹ 329971 as shown in the above table. The family labour income per hectare of Ber cultivation varied from ₹ 226898 in medium farms to ₹ 229753 in large farms. On an average, family labour income was worked out to be ₹ 228171 per hectare. The overall net income from Ber cultivation was ₹ 209593 per hectare. The overall returns to management from Ber cultivation was ₹ 176465 per hectare. Benefit cost ratio of large farms was slightly higher (1.64) compared to medium farms (1.63). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were somewhat more efficient than medium farms.

Cost of production per quintal

The cost of production of Ber across different land size categories is given in table T.36.4. On an average, ₹ 559 was spent on producing a quintal of Ber on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 561) followed by large farms (₹ 557) per quintal. It indicated that large farms were more efficient than medium farms mainly because of lower cost per unit of output.

Table T.36.4 Cost of production of Ber on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	358	361	--	359
Cost A_2	358	361	--	359
Cost B_1	368	371	--	370
Cost B_2	526	529	--	528
Cost C_1	399	403	--	401
Cost C_2	557	561	--	559
Cost C_3	613	617	--	615

***

37. Strawberry

Cost structure

The table T.37.1 shows the breakup of the cost incurred by different size groups in various operations of Strawberry cultivation. On an average, ₹ 446931 was spent on Strawberry per hectare. Cost of cultivation of small farm category was highest, ₹ 788717 followed by medium farms (₹ 612181) and large farms (₹ 355289). Among the different components of cost of cultivation, contribution of Seed was highest (22.8 per cent) followed by human labour (12.8 per cent). Small farms had spent ₹ 162500 and ₹ 52083 on Seed and Incidental Charges respectively, which was exponentially high compared to medium farms (₹ 112857 and ₹ 30143) and small farms category (₹ 89029 and ₹ 12000).

Table T.37.1 Item-wise break up of cost of cultivation/ha. of Strawberry Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	40399	11.4	75957	12.4	110541	14.0	54352	12.2
Family	2379	0.7	0	0.0	8750	1.1	2828	0.6
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	15430	4.3	40900	6.7	17926	2.3	19456	4.4
Seed	89029	25.1	112857	18.4	162500	20.6	101688	22.8
Manure	5100	1.4	10714	1.8	14000	1.8	7031	1.6
Fertilizer	9986	2.8	25786	4.2	43583	5.5	16490	3.7
Irrigation Charges	828	0.2	3586	0.6	3396	0.4	1551	0.3
Plant Protection Charges	22029	6.2	73214	12.0	73667	9.3	35948	8.0
Incidental charges	12000	3.4	30143	4.9	52083	6.6	19656	4.4
Repairs on Farm Implements	77	0.0	313	0.1	594	0.1	176	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	11693	3.3	22408	3.7	28697	3.6	15381	3.4
Depreciation	11622	3.3	22274	3.6	28525	3.6	15289	3.4
Land Revenue and Other Taxes	109	0.0	208	0.0	267	0.0	143	0.0
Rental Value of Land	128134	36.1	181410	29.6	228294	28.9	148423	33.2
Interest on Fixed Capital	6476	1.8	12410	2.0	15894	2.0	8518	1.9
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**355289**	**100.0**	**612181**	**100.0**	**788717**	**100.0**	**446931**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Strawberry cultivation for different size groups are given in table T.37.2. The total cost of cultivation (Cost C2) per hectare of Strawberry amounted to an average of ₹ 446931 at State level. On an average, Cost A1 was ₹ 287161, which was highest on small farms (₹ 535779) and lowest on large farms (₹ 218300). Here, the table clearly indicates high investment by small farms in cultivation of Strawberry per hectare compared to other farms categories.

Table T.37.2 Different cost concepts basis on different size holdings of Strawberry (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	218300	418361	535779	287161
Cost A_2	218300	418361	535779	287161
Cost B_1	224776	430771	551673	295679
Cost B_2	352910	612181	779967	444103
Cost C_1	227155	430771	560423	298507
Cost C_2	355289	612181	788717	446931
Cost C_3	390818	673399	867588	491624

Income measures

A comparison of various income measures from Strawberry cultivation are given in table T.37.3.

Table T.37.3 Returns from cultivation of Strawberry on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	551157	671349	835585	604238
Farm Business Income	551157	671349	835585	604238
Family Labour Income	416547	477529	591398	447296
Net Income	414168	477529	582648	444468
Returns to Management	378639	416311	503776	399775
Benefit Cost Ratio	2.17	1.78	1.74	1.99

Returns over variable cost varied between ₹ 551157 to ₹ 835585 as shown in the above table. The family labour income per hectare of Strawberry cultivation varied from ₹ 416547 in large farms to ₹ 591398 in small farms. On an average, family labour income was worked out to be ₹ 447296 per hectare. The overall net income from Strawberry cultivation was ₹ 444468 per hectare, wherein net income of small farms was highest (₹ 582648) and lowest for large farms (₹ 414168). The overall returns to management from Strawberry cultivation was ₹ 399775 per hectare. Benefit cost ratio of large farms was highest (2.17) followed by medium farms (1.78) and small farms (1.74). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Strawberry across different land size categories is given in below table T.37.4. On an average, ₹ 2165 was spent on producing a quintal of Strawberry on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 2458) followed by medium farms (₹ 2255) and large farms (₹ 2044) per quintal. This indicated that in case of Strawberry production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.37.4 Cost of production of Strawberry on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1256	1541	1670	1391
Cost A_2	1256	1541	1670	1391
Cost B_1	1293	1587	1719	1432
Cost B_2	2030	2255	2431	2151
Cost C_1	1307	1587	1747	1446
Cost C_2	2044	2255	2458	2165
Cost C_3	2248	2481	2704	2381

***

38. Other Fruits (Jackfruit)

Cost structure

The table T.38.1 shows the breakup of the cost incurred by different size groups in various operations of Other Fruits (Jackfruit) cultivation. On an average, ₹ 189734 was spent on Other Fruits (Jackfruit) per hectare. Cost of cultivation of medium farm category was highest, ₹ 225387 followed by small farms (₹ 155824). Sample for this crop was available in large farms during study. Among the different components of cost of cultivation, contribution of human labour was highest (22.4 per cent) followed by Incidental Charges (10.8 per cent) and Plant Protection Charges (7.7 per cent). Medium farms had spent highest in almost all the cost components compared to small farms except for Irrigation Charges.

Table T.38.1 Item-wise break up of cost of cultivation/ha. of Other Fruits (Jackfruit) Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	--	--	49429	21.9	35367	23	42221	22.3
Family	--	--	0	0.0	272	0	139	0.1
Bullock Pair	--	--	0	0.0	0	0	0	0.0
Mechanical Power	--	--	0	0.0	0	0	0	0.0
Seed	--	--	0	0.0	0	0	0	0.0
Manure	--	--	1571	0.7	0	0	766	0.4
Fertilizer	--	--	16886	7.5	9967	6	13340	7.0
Irrigation Charges	--	--	2177	1.0	2689	2	2439	1.3
Plant Protection Charges	--	--	19314	8.6	10217	7	14652	7.7
Incidental charges	--	--	25629	11.4	15462	10	20418	10.8
Repairs on Farm Implements	--	--	198	0.1	146	0	171	0.1
Insurance Premium	--	--	0	0.0	0	0	0	0.0
Rab Material	--	--	0	0.0	0	0	0	0.0
Interest on working Capital	--	--	6912	3.1	4431	3	5640	3.0
Depreciation	--	--	6871	3.0	4404	3	5607	3.0
Land Revenue and Other Taxes	--	--	64	0.0	41	0	52	0.0
Rental Value of Land	--	--	79129	35.1	60749	39	69708	36.7
Interest on Fixed Capital	--	--	3828	1.7	2454	2	3124	1.6
Amortization Cost	--	--	13380	5.9	9624	6	11455	6.0
Total Cost	--	--	**225387**	**100.0**	**155824**	**100**	**189734**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Other Fruits (Jackfruit) cultivation for different size groups are given in table T.38.2. The total cost of cultivation (Cost C2) per hectare of Other Fruits (Jackfruit) amounted to an average of ₹ 189734 at State level. On an average, Cost A1 was ₹ 105307, which was highest on medium farms (₹ 129050) and lowest on small farms (₹ 82725). Here, the table clearly indicates high investment by medium farms in cultivation of Other Fruits (Jackfruit) per hectare compared to other farms categories.

Table T.38.2 Different cost concepts basis on different size holdings of Other Fruits (Jackfruit) (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	--	129050	82725	105307
Cost A_2	--	129050	82725	105307
Cost B_1	--	132879	85179	108431
Cost B_2	--	225387	155552	189594
Cost C_1	--	132879	85451	108570
Cost C_2	--	225387	155824	189734
Cost C_3	--	247926	171406	208707

Income measures

A comparison of various income measures from Other Fruits (Jackfruit) cultivation are given in table T.38.3.

Table T.38.3 Returns from cultivation of Other Fruits (Jackfruit) on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	--	346107	282017	313258
Farm Business Income	--	346107	282017	313258
Family Labour Income	--	249770	209190	228971
Net Income	--	249770	208918	228832
Returns to Management	--	227231	193336	209859
Benefit Cost Ratio	--	2.11	2.34	2.21

Returns over variable cost varied between ₹ 282017 to ₹ 346107 as shown in the above table. The family labour income per hectare of Other Fruits (Jackfruit) cultivation varied from ₹ 209190 in small farms to ₹ 249770 in large farms. On an average, family labour income was worked out to be ₹ 228971 per hectare. The overall net income from Other Fruits (Jackfruit) cultivation was ₹ 228832 per hectare. The overall returns to management from Other Fruits (Jackfruit) cultivation turned out to be ₹ 209859 per hectare. Benefit cost ratio of small farms was highest (2.34) followed by medium farms (2.11). Overall, it indicated that inspite of varied level of investment by different size of farms, small farms were more efficient than medium farms.

Cost of production per quintal

The cost of production of Other Fruits (Jackfruit) across different land size categories is given in table T.38.4. On an average, ₹ 931 was spent on producing a quintal of Other Fruits (Jackfruit) on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 1011) followed by small farms (₹ 840) per quintal. This indicated that in case of Other Fruits (Jackfruit) production, small farms had economies of scale on their farms as compared to medium farms.

Table T.38.4 Cost of production of Other Fruits (Jackfruit) on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	--	579	446	517
Cost A_2	--	579	446	517
Cost B_1	--	596	459	532
Cost B_2	--	1011	839	931
Cost C_1	--	596	461	533
Cost C_2	--	1011	840	931
Cost C_3	--	1112	924	1025

***

39. Beans

Cost structure

The table T.42.1 shows the breakup of the cost incurred by different size groups in various operations of Beans cultivation. On an average, ₹ 176676 was spent on Beans per hectare. Cost of cultivation of large farm category was highest, ₹ 186412 followed by medium farms (₹ 174925) and small farms (₹ 155775). Among the different components of cost of cultivation, contribution of human labour was highest (35.1 per cent) followed Fertilizer (7.5 per cent). Large farms had spent ₹ 15550 on Fertilizers, which was high compared to medium farms (₹ 11800) and small farms category (₹ 11390).

Table T.42.1 Item-wise break up of cost of cultivation/ha. of Beans Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	36939	19.8	35966	20.6	30569	19.6	35559	20.1
Family	24173	13.0	29756	17.0	23312	15.0	26588	15.0
Bullock Pair	211	0.1	275	0.2	1525	1.0	434	0.2
Mechanical Power	14919	8.0	12434	7.1	9517	6.1	12993	7.4
Seed	4523	2.4	4453	2.5	6113	3.9	4725	2.7
Manure	7584	4.1	5285	3.0	7280	4.7	6493	3.7
Fertilizer	15550	8.3	11800	6.7	11390	7.3	13231	7.5
Irrigation Charges	1590	0.9	1875	1.1	2340	1.5	1830	1.0
Plant Protection Charges	8532	4.6	7656	4.4	6897	4.4	7892	4.5
Incidental charges	10733	5.8	12242	7.0	11892	7.6	11590	6.6
Repairs on Farm Implements	39	0.0	40	0.0	77	0.0	45	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	6037	3.2	5522	3.2	5256	3.4	5688	3.2
Depreciation	265	0.1	242	0.1	231	0.1	249	0.1
Land Revenue and Other Taxes	41	0.0	37	0.0	35	0.0	38	0.0
Rental Value of Land	54909	29.5	47007	26.9	39023	25.1	48975	27.7
Interest on Fixed Capital	367	0.2	335	0.2	319	0.2	345	0.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**186412**	**100.0**	**174925**	**100.0**	**155775**	**100.0**	**176676**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Beans cultivation for different size groups are given in table T.42.2. The total cost of cultivation (Cost C2) per hectare of Beans amounted to an average of ₹ 176676 at State level. On an average, Cost A1 was ₹ 100768, which was highest on large farms (₹ 106963) and lowest on small farms (₹ 93122). Here, the table clearly indicated high investment by large farms in cultivation of Beans per hectare compared to other farms categories.

Table T.42.2 Different cost concepts basis on different size holdings of Beans (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	106963	97827	93122	100768
Cost A_2	106963	97827	93122	100768
Cost B_1	107329	98163	93441	101113
Cost B_2	162239	145169	132464	150088
Cost C_1	131502	127918	116753	127701
Cost C_2	186412	174925	155775	176676
Cost C_3	205053	192417	171353	194343

Income measures

A comparison of various income measures from Beans cultivation are given in table T.42.3.

Table T.42.3 Returns from cultivation of Beans on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	222739	184435	141227	193310
Farm Business Income	222739	184435	141227	193310
Family Labour Income	167463	137093	101885	143990
Net Income	143289	107338	78573	117402
Returns to Management	124648	89845	62996	99735
Benefit Cost Ratio	1.77	1.61	1.50	1.66

Returns over variable cost varied between ₹ 141227 to ₹ 222739 as shown in the above table. The family labour income per hectare of Beans cultivation varied from ₹ 101885 in small farms to ₹ 167463 in large farms. On an average, family labour income was worked out to be ₹ 143990 per hectare. The overall net income from Beans cultivation was ₹ 117402 per hectare, wherein net income of large farms was highest (₹ 143289) and lowest for small farms (₹ 78573). The overall returns to management from Beans cultivation was ₹ 99735 per hectare. Benefit cost ratio of large farms was highest (1.77) followed by medium farms (1.61) and small farms (1.50). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were efficient than medium and small farms.

Cost of production per quintal

The cost of production of Beans across different land size categories is given in table T.42.4. On an average, ₹ 1262 was spent on producing a quintal of Beans on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 1295) followed by large farms (₹ 1278) and small farms (₹ 1120) per quintal. This indicates that in case of Beans production, small farms were more efficient than medium and large farms mainly because of lower cost per unit of output.

Table T.42.4 Cost of production of Beans on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	733	724	670	720
Cost A_2	733	724	670	720
Cost B_1	736	727	672	722
Cost B_2	1112	1074	953	1072
Cost C_1	902	947	840	912
Cost C_2	1278	1295	1120	1262
Cost C_3	1406	1424	1232	1389

***

40. Cabbage

Cost structure

The table T.43.1 shows the breakup of the cost incurred by different size groups in various operations of Cabbage cultivation. On an average, ₹ 157428 was spent on Cabbage per hectare. Cost of cultivation of small farm category was highest, ₹ 204249 followed by medium farms (₹ 158196) and large farms (₹ 147758). Among the different components of cost of cultivation, contribution of human labour was highest (30.8 per cent) followed by Seed (9.1 per cent). On Fertlizers and Incidental charges, small farms had spent ₹ 13406 and ₹ 17230 respectively, which was high compared to medium farms (₹ 11898 and ₹ 11740) and large farms category (₹ 10850 and ₹ 8458).

Table T.43.1 Item-wise break up of cost of cultivation/ha. of Cabbage Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	32327	21.9	30733	19.4	37329	18.3	31923	20.3
Family	14287	9.7	17401	11.0	22533	11.0	16495	10.5
Bullock Pair	0	0.0	328	0.2	1696	0.8	298	0.2
Mechanical Power	7089	4.8	7052	4.5	11041	5.4	7381	4.7
Seed	13411	9.1	15149	9.6	13937	6.8	14323	9.1
Manure	1921	1.3	4085	2.6	1935	0.9	3005	1.9
Fertilizer	10850	7.3	11898	7.5	17406	8.5	11890	7.6
Irrigation Charges	2491	1.7	1909	1.2	2582	1.3	2207	1.4
Plant Protection Charges	7862	5.3	7813	4.9	13609	6.7	8290	5.3
Incidental charges	8458	5.7	11740	7.4	17230	8.4	10791	6.9
Repairs on Farm Implements	33	0.0	87	0.1	109	0.1	66	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5066	3.4	5448	3.4	7012	3.4	5410	3.4
Depreciation	389	0.3	419	0.3	539	0.3	416	0.3
Land Revenue and Other Taxes	24	0.0	26	0.0	34	0.0	26	0.0
Rental Value of Land	42633	28.9	43121	27.3	55988	27.4	43928	27.9
Interest on Fixed Capital	918	0.6	987	0.6	1271	0.6	980	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**147758**	**100.0**	**158196**	**100.0**	**204249**	**100.0**	**157428**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Cabbage cultivation for different size groups are given in table T.43.2. The total cost of cultivation (Cost C2) per hectare of Cabbage amounted to an average of ₹ 157428 at State level. On an average, Cost A1 was ₹ 96025, which was highest on small farms (₹ 124458) and lowest on large farms (₹ 89921). Here, the table clearly indicates high investment by small farms in cultivation of Cabbage per hectare compared to other farms categories.

Table T.43.2 Different cost concepts basis on different size holdings of Cabbage (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	89921	96687	124458	96025
Cost A_2	89921	96687	124458	96025
Cost B_1	90839	97674	125729	97005
Cost B_2	133472	140795	181717	140933
Cost C_1	105126	115075	148261	113500
Cost C_2	147758	158196	204249	157428
Cost C_3	162534	174015	224674	173170

Income measures

A comparison of various income measures from Cabbage cultivation are given in table T.43.3.

Table T.43.3 Returns from cultivation of Cabbage on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	166020	162197	211672	167697
Farm Business Income	166020	162197	211672	167697
Family Labour Income	122469	118089	154414	122789
Net Income	108183	100688	131881	106294
Returns to Management	93407	84868	111456	90551
Benefit Cost Ratio	1.73	1.64	1.65	1.68

Returns over variable cost varied between ₹ 162197 to ₹ 211672 as shown in the above table. The family labour income per hectare of Cabbage cultivation varied from ₹ 118089 in medium farms to ₹ 154414 in small farms. On an average, family labour income was worked out to be ₹ 122789 per hectare. The overall net income from Cabbage cultivation was ₹ 106294 per hectare, wherein net income of small farms was highest (₹ 131881) and lowest for medium farms (₹ 100688). The overall returns to management from Cabbage cultivation was ₹ 90551 per hectare. Benefit cost ratio of large farms was highest (1.73) followed by small farms (1.65) and medium farms (1.64). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Cabbage across different land size categories is given table T.43.4. On an average, ₹ 590 was spent on producing a quintal of Cabbage on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 661) followed by medium farms (₹ 620) and large farms (₹ 542) per quintal. This indicated that in case of Cabbage production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.43.4 Cost of production of Cabbage on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	330	379	403	360
Cost A_2	330	379	403	360
Cost B_1	333	383	407	364
Cost B_2	490	552	588	528
Cost C_1	386	451	480	426
Cost C_2	542	620	661	590
Cost C_3	597	682	727	649

***

41. Cauliflower

Cost structure

The table T.44.1 shows the breakup of the cost incurred by different size groups in various operations of Cauliflower cultivation. On an average, ₹ 149873 was spent on Cauliflower per hectare. Cost of cultivation of small farm category was highest, ₹ 163727 followed by medium farms (₹ 156733) and large farms (₹ 138165). Among the different components of cost of cultivation, contribution of human labour was highest (27.8 per cent) followed by Seed (12.9 per cent) and Fertilizers (8.5 per cent) and. Medium farms had spent ₹ 22249 on Seed, which was high compared to small farms (₹ 19268) and large farms category (₹ 16196).

Table T.44.1 Item-wise break up of cost of cultivation/ha. of Cauliflower Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	28055	20.3	29703	19.0	36110	22.1	29796	19.9
Family	8501	6.2	13914	8.9	15509	9.5	11860	7.9
Bullock Pair	124	0.1	570	0.4	1246	0.8	467	0.3
Mechanical Power	9715	7.0	8092	5.2	6191	3.8	8535	5.7
Seed	16196	11.7	22249	14.2	19268	11.8	19375	12.9
Manure	3136	2.3	4231	2.7	5031	3.1	3873	2.6
Fertilizer	12715	9.2	13089	8.4	11482	7.0	12739	8.5
Irrigation Charges	1358	1.0	1607	1.0	2582	1.6	1622	1.1
Plant Protection Charges	7639	5.5	8953	5.7	7510	4.6	8232	5.5
Incidental charges	8605	6.2	10058	6.4	9823	6.0	9427	6.3
Repairs on Farm Implements	26	0.0	40	0.0	98	0.1	41	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5254	3.8	5916	3.8	5960	3.6	5646	3.8
Depreciation	404	0.3	455	0.3	458	0.3	434	0.3
Land Revenue and Other Taxes	25	0.0	28	0.0	29	0.0	27	0.0
Rental Value of Land	35459	25.7	36755	23.5	41350	25.3	36775	24.5
Interest on Fixed Capital	952	0.7	1072	0.7	1080	0.7	1023	0.7
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**138165**	**100.0**	**156733**	**100.0**	**163727**	**100.0**	**149873**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Cauliflower cultivation for different size groups are given in table T.44.2. The total cost of cultivation (Cost C2) per hectare of Cauliflower amounted to an average of ₹ 149873 at State level. On an average, Cost A1 was ₹ 100215, which was highest on small farms (₹ 105788) and lowest on large farms (₹ 93253). Here, the table clearly indicated high investment by small farms in cultivation of Cauliflower per hectare compared to other farms categories.

Table T.44.2 Different cost concepts basis on different size holdings of Cauliflower (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	93253	104992	105788	100215
Cost A_2	93253	104992	105788	100215
Cost B_1	94205	106064	106868	101238
Cost B_2	129664	142819	148218	138012
Cost C_1	102706	119978	122377	113098
Cost C_2	138165	156733	163727	149873
Cost C_3	151982	172406	180100	164860

Income measures

A comparison of various income measures from Cauliflower cultivation are given in table T.44.3.

Table T.44.3 Returns from cultivation of Cauliflower on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	119653	115710	142485	120595
Farm Business Income	119653	115710	142485	120595
Family Labour Income	83242	77883	100055	82797
Net Income	74741	63969	84545	70937
Returns to Management	60924	48296	68173	55949
Benefit Cost Ratio	1.54	1.41	1.52	1.47

Returns over variable cost varied between ₹ 115710 to ₹ 142485 as shown in the above table. The family labour income per hectare of Cauliflower cultivation varied from ₹ 77883 in medium farms to ₹ 100055 in small farms. On an average, family labour income was worked out to be ₹ 82797 per hectare. The overall net income from Cauliflower cultivation was ₹ 70937 per hectare, wherein net income of small farms was highest (₹ 84545) and lowest for medium farms (₹ 63969). The overall returns to management from Cauliflower cultivation was ₹ 55949 per hectare. Benefit cost ratio of large farms was highest (1.54) followed by small farms (1.52) and medium farms (1.41). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and large farms.

Cost of production per quintal

The cost of production of Cauliflower across different land size categories is given in table T.44.4. On an average, ₹ 662 was spent on producing a quintal of Cauliflower on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 708) followed by medium farms (₹ 684) and large farms (₹ 623) per quintal. This indicated that in case of Cauliflower production, large farms were more efficient than medium and small farms mainly because of lower cost per unit of output.

Table T.44.4 Cost of production of Cauliflower on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	420	458	458	443
Cost A_2	420	458	458	443
Cost B_1	425	463	462	447
Cost B_2	585	624	641	610
Cost C_1	463	524	529	500
Cost C_2	623	684	708	662
Cost C_3	685	753	779	729

***

42. Capsicum

Cost structure

The table T.45.1 shows the breakup of the cost incurred by different size groups in various operations of Capsicum cultivation. On an average, ₹ 231341 was spent on Capsicum per hectare. Cost of cultivation of small farm category was highest, ₹ 301352 followed by large farms (₹ 233388) and medium farms (₹ 198183). Among the different components of cost of cultivation, contribution of human labour was highest (36.8 per cent) followed by Seed (11.0 per cent). Small farms had spent ₹ 112223 and ₹ 25378 on human labour and Fertilizers respectively, which was exponentially high compared to medium farms (₹ 66400 and ₹ 8440) and large farms category (₹ 96222 and ₹ 8281).

Table T.45.1 Item-wise break up of cost of cultivation/ha. of Capsicum Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	71947	30.8	43332	21.9	73465	24.4	58395	25.2
Family	24275	10.4	23069	11.6	38758	12.9	26895	11.6
Bullock Pair	949	0.4	1299	0.7	1427	0.5	1225	0.5
Mechanical Power	12964	5.6	10690	5.4	14271	4.7	12150	5.3
Seed	22550	9.7	26332	13.3	27748	9.2	25536	11.0
Manure	3203	1.4	1998	1.0	449	0.1	2009	0.9
Fertilizer	8281	3.5	8440	4.3	25378	8.4	12141	5.2
Irrigation Charges	3083	1.3	3138	1.6	9935	3.3	4626	2.0
Plant Protection Charges	8123	3.5	7549	3.8	11726	3.9	8642	3.7
Incidental charges	12346	5.3	6049	3.1	6513	2.2	7999	3.5
Repairs on Farm Implements	29	0.0	49	0.0	138	0.0	63	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	8608	3.7	6533	3.3	10263	3.4	7967	3.4
Depreciation	662	0.3	502	0.3	789	0.3	612	0.3
Land Revenue and Other Taxes	41	0.0	31	0.0	49	0.0	38	0.0
Rental Value of Land	54766	23.5	57990	29.3	78584	26.1	61601	26.6
Interest on Fixed Capital	1560	0.7	1184	0.6	1859	0.6	1443	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**233388**	**100.0**	**198183**	**100.0**	**301352**	**100.0**	**231341**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Capsicum cultivation for different size groups are given in table T.45.2. The total cost of cultivation (Cost C2) per hectare of Capsicum amounted to an average of ₹ 231341 at State level. On an average, Cost A1 was ₹ 141402, which was highest on small farms (₹ 182150) and lowest on medium farms (₹ 115941). Here, the table clearly indicates high investment by small farms in cultivation of Capsicum per hectare compared to other farms categories.

Table T.45.2 Different cost concepts basis on different size holdings of Capsicum (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	152786	115941	182150	141402
Cost A_2	152786	115941	182150	141402
Cost B_1	154346	117124	184010	142845
Cost B_2	209112	175114	262593	204446
Cost C_1	178621	140193	222768	169740
Cost C_2	233388	198183	301352	231341
Cost C_3	256726	218001	331487	254475

Income measures

A comparison of various income measures from Capsicum cultivation are given in table T.45.3.

Table T.45.3 Returns from cultivation of Capsicum on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	176060	232186	289648	228435
Farm Business Income	176060	232186	289648	228435
Family Labour Income	119733	173013	209204	165390
Net Income	95458	149944	170446	138495
Returns to Management	72119	130126	140311	115361
Benefit Cost Ratio	1.41	1.76	1.57	1.60

Returns over variable cost varied between ₹ 176060 to ₹ 289648 as shown in the above table. The family labour income per hectare of Capsicum cultivation varied from ₹ 119733 in large farms to ₹ 209204 in small farms. On an average, family labour income was worked out to be ₹ 165390 per hectare. The overall net income from Capsicum cultivation was ₹ 138495 per hectare. The overall returns to management from Capsicum cultivation turned out to be profitable by ₹ 115361 per hectare. Benefit cost ratio of medium farms was highest (1.76) followed by small farms (1.57) and large farms (1.41). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than large and small farms.

Cost of production per quintal

The cost of production of Capsicum across different land size categories is given in table T.45.4. On an average, ₹ 1412 was spent on producing a quintal of Capsicum on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1567) followed by small farms (₹ 1517) and medium farms (₹ 1263) per quintal. This indicates that in case of Capsicum production, medium farms had economies of scale on their farms as compared to small and large farms.

Table T.45.4 Cost of production of Capsicum on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1026	739	917	863
Cost A_2	1026	739	917	863
Cost B_1	1036	746	926	872
Cost B_2	1404	1116	1322	1248
Cost C_1	1199	893	1121	1036
Cost C_2	1567	1263	1517	1412
Cost C_3	1723	1389	1669	1553

***

43. Brinjal

Cost structure

The table T.46.1 shows the breakup of the cost incurred by different size groups in various operations of Brinjal cultivation. On an average, ₹ 185264 was spent on Brinjal per hectare. Cost of cultivation of small farm category was highest, ₹ 188193 followed by medium farms (₹ 186465) and large farms (₹ 181558). Among the different components of cost of cultivation, contribution of human labour was highest (37.7 per cent). Small farms had spent ₹ 16473 on Fertilizers, which was high compared to medium farms (₹ 12909) and large farms category (₹ 12444).

Table T.46.1 Item-wise break up of cost of cultivation/ha. of Brinjal Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	43769	24.1	44266	23.7	39611	21.0	42927	23.2
Family	28396	15.6	28519	15.3	22428	11.9	26943	14.5
Bullock Pair	173	0.1	375	0.2	414	0.2	317	0.2
Mechanical Power	7177	4.0	9644	5.2	13711	7.3	9846	5.3
Seed	9762	5.4	9838	5.3	8215	4.4	9404	5.1
Manure	7191	4.0	7127	3.8	7850	4.2	7331	4.0
Fertilizer	12444	6.9	12909	6.9	16473	8.8	13652	7.4
Irrigation Charges	1737	1.0	2050	1.1	2413	1.3	2037	1.1
Plant Protection Charges	13421	7.4	14670	7.9	13154	7.0	13871	7.5
Incidental charges	9873	5.4	10847	5.8	16100	8.6	11846	6.4
Repairs on Farm Implements	42	0.0	71	0.0	96	0.1	68	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	6335	3.5	6708	3.6	7082	3.8	6678	3.6
Depreciation	312	0.2	330	0.2	348	0.2	328	0.2
Land Revenue and Other Taxes	26	0.0	27	0.0	29	0.0	27	0.0
Rental Value of Land	40485	22.3	38644	20.7	39804	21.2	39551	21.3
Interest on Fixed Capital	415	0.2	440	0.2	464	0.2	438	0.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**181558**	**100.0**	**186465**	**100.0**	**188193**	**100.0**	**185264**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Brinjal cultivation for different size groups are given in table T.46.2. The total cost of cultivation (Cost C2) per hectare of Brinjal amounted to an average of ₹ 185264 at State level. On an average, Cost A1 was ₹ 118332, which was highest on small farms (₹ 125497) and lowest on large farms (₹ 112261). Here, the table clearly indicates high investment by small farms in cultivation of Brinjal per hectare compared to other farms categories.

Table T.46.2 Different cost concepts basis on different size holdings of Brinjal (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	112261	118862	125497	118332
Cost A_2	112261	118862	125497	118332
Cost B_1	112676	119302	125961	118770
Cost B_2	153162	157946	165765	158321
Cost C_1	141073	147821	148389	145713
Cost C_2	181558	186465	188193	185264
Cost C_3	199714	205112	207012	203790

Income measures

A comparison of various income measures from Brinjal cultivation are given in table T.46.3.

Table T.46.3 Returns from cultivation of Brinjal on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	130807	113167	113501	119135
Farm Business Income	130807	113167	113501	119135
Family Labour Income	89906	74083	73233	79147
Net Income	61510	45564	50805	52204
Returns to Management	43354	26917	31985	33677
Benefit Cost Ratio	1.34	1.24	1.27	1.28

Returns over variable cost varied between ₹ 113167 to ₹ 130807 as shown in the above table. The family labour income per hectare of Brinjal cultivation varied from ₹ 73233 in small farms ₹ 89906 in large farms. On an average, family labour income was worked out to be ₹ 79147 per hectare. The overall net income from Brinjal cultivation was ₹ 52204 per hectare. The overall returns to management from Brinjal cultivation turned out to be profitable by ₹ 33677 per hectare. Benefit cost ratio of large farms was highest (1.34) followed by small farms (1.27) and medium farms (1.24). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Brinjal across different land size categories is given in table T.46.4. On an average, ₹ 989 was spent on producing a quintal of Brinjal on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 1002) followed by large farms (₹ 986) and small farms (₹ 974) per quintal. This indicated that in case of Brinjal production, small farms were more efficient and had economies of scale on their farms as compared to large and medium farms.

Table T.46.4 Cost of production of Brinjal on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	610	639	649	632
Cost A_2	610	639	649	632
Cost B_1	612	641	652	634
Cost B_2	832	849	858	845
Cost C_1	766	794	768	778
Cost C_2	986	1002	974	989
Cost C_3	1085	1102	1071	1088

***

44. Okra

Cost structure

The table T.47.1 shows the breakup of the cost incurred by different size groups in various operations of Okra cultivation. On an average, ₹ 125955 was spent on Okra per hectare. Cost of cultivation of small farm category was highest, ₹ 136572 followed by large farms (₹ 124006) and medium farms (₹ 123900). Among the different components of cost of cultivation, contribution of human labour was highest (31.6 per cent) followed by Seed (10.0 per cent). Small farms had spent ₹ 44467 and ₹ 11242 on human labour and Fertilizers respectively, which was high compared to medium farms (₹ 39132 and ₹ 7587) and large farms category (₹ 38694 and ₹ 7443).

Table T.47.1 Item-wise break up of cost of cultivation/ha. of Okra Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	22215	17.9	21161	17.1	24136	17.7	21941	17.4
Family	16479	13.3	17971	14.5	20331	14.9	17917	14.2
Bullock Pair	62	0.1	375	0.3	721	0.5	340	0.3
Mechanical Power	5342	4.3	7937	6.4	7486	5.5	7115	5.6
Seed	18037	14.5	10706	8.6	9075	6.6	12565	10.0
Manure	2387	1.9	4628	3.7	4309	3.2	3929	3.1
Fertilizer	7443	6.0	7587	6.1	11242	8.2	8129	6.5
Irrigation Charges	2414	1.9	1672	1.3	2728	2.0	2056	1.6
Plant Protection Charges	8905	7.2	11721	9.5	10882	8.0	10773	8.6
Incidental charges	5301	4.3	5755	4.6	4749	3.5	5463	4.3
Repairs on Farm Implements	42	0.0	71	0.1	66	0.0	62	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4329	3.5	4297	3.5	4524	3.3	4342	3.4
Depreciation	209	0.2	208	0.2	219	0.2	210	0.2
Land Revenue and Other Taxes	17	0.0	17	0.0	18	0.0	17	0.0
Rental Value of Land	30545	24.6	29519	23.8	35794	26.2	30818	24.5
Interest on Fixed Capital	279	0.2	277	0.2	292	0.2	280	0.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**124006**	**100.0**	**123900**	**100.0**	**136572**	**100.0**	**125955**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Okra cultivation for different size groups are given in table T.47.2. The total cost of cultivation (Cost C2) per hectare of Okra amounted to an average of ₹ 125955 at State level. On an average, Cost A1 was ₹ 76941, which was highest on small farms (₹ 80156) and lowest on medium farms (₹ 76133). Here, the table clearly indicated high investment by small farms in cultivation of Okra per hectare compared to other farms categories.

Table T.47.2 Different cost concepts basis on different size holdings of Okra (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	76703	76133	80156	76941
Cost A_2	76703	76133	80156	76941
Cost B_1	76983	76410	80447	77221
Cost B_2	107527	105929	116241	108039
Cost C_1	93461	94381	100778	95137
Cost C_2	124006	123900	136572	125955
Cost C_3	136407	136290	150229	138551

Income measures

A comparison of various income measures from Okra cultivation are given in table T.47.3.

Table T.47.3 Returns from cultivation of Okra on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	106670	101082	134720	108073
Farm Business Income	106670	101082	134720	108073
Family Labour Income	75847	71286	98634	76974
Net Income	59368	53315	78303	59058
Returns to Management	46967	40925	64646	46462
Benefit Cost Ratio	1.48	1.43	1.57	1.47

Returns over variable cost varied between ₹ 101082 to ₹ 134720 as shown in the above table. The family labour income per hectare of Okra cultivation varied from ₹ 71286 in medium farms to ₹ 98634 in small farms. On an average, family labour income was worked out to be ₹ 76974 per hectare. The overall net income from Okra cultivation was ₹ 59058 per hectare, wherein net income of small farms was highest (₹ 78303) and lowest for medum farms (₹ 53315). The overall returns to management from Okra cultivation was ₹ 46462 per hectare. Benefit cost ratio of small farms was highest (1.57) followed by large farms (1.48) and medium farms (1.43). Overall, it indicated that inspite of varied level of investment by different size of farms, small farms were more efficient than medium and large farms.

Cost of production per quintal

The cost of production of Okra across different land size categories is given in table T.47.4. On an average, ₹ 1438 was spent on producing a quintal of Okra on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 1493) followed by small farms (₹ 1401) and large farms (₹ 1365) per quintal. This indicated that in case of Okra production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.47.4 Cost of production of Okra on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	844	917	822	879
Cost A_2	844	917	822	879
Cost B_1	847	921	825	882
Cost B_2	1183	1276	1193	1234
Cost C_1	1029	1137	1034	1086
Cost C_2	1365	1493	1401	1438
Cost C_3	1501	1642	1541	1582

***

45. Onion

Cost structure

The table T.48.1 shows the breakup of the cost incurred by different size groups in various operations of Onion cultivation. On an average, ₹ 96310 was spent on Onion per hectare. Cost of cultivation of small farm category was highest, ₹ 122428 followed by large farms (₹ 95552) and medium farms (₹ 90878). Among the different components of cost of cultivation, contribution of human labour was highest (30.3 per cent) followed by Fertilizers (9.8 per cent). Small farms had spent ₹ 42595 on human labour, which was exponentially high compared to medium farms (₹ 28706) and large farms category (₹ 27558).

Table T.48.1 Item-wise break up of cost of cultivation/ha. of Onion Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	21237	22.2	21081	23.2	33993	27.8	22212	23.1
Family	6321	6.6	7625	8.4	8602	7.0	6892	7.2
Bullock Pair	0	0.0	0	0.0	62	0.1	5	0.0
Mechanical Power	7221	7.6	6012	6.6	8562	7.0	6969	7.2
Seed	5587	5.8	5249	5.8	6851	5.6	5585	5.8
Manure	5793	6.1	4629	5.1	4294	3.5	5326	5.5
Fertilizer	9979	10.4	8132	8.9	10531	8.6	9474	9.8
Irrigation Charges	1783	1.9	1667	1.8	3357	2.7	1875	1.9
Plant Protection Charges	4295	4.5	3721	4.1	4895	4.0	4172	4.3
Incidental charges	6617	6.9	6182	6.8	9462	7.7	6715	7.0
Repairs on Farm Implements	58	0.1	104	0.1	227	0.2	85	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	3754	3.9	3407	3.7	4934	4.0	3745	3.9
Depreciation	1828	1.9	1659	1.8	2403	2.0	1824	1.9
Land Revenue and Other Taxes	25	0.0	23	0.0	33	0.0	25	0.0
Rental Value of Land	14854	15.5	15761	17.3	16076	13.1	15222	15.8
Interest on Fixed Capital	6200	6.5	5626	6.2	8148	6.7	6185	6.4
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**95552**	**100.0**	**90878**	**100.0**	**122428**	**100.0**	**96310**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Onion cultivation for different size groups are given in table T.48.2. The total cost of cultivation (Cost C2) per hectare of Onion amounted to an average of ₹ 96310 at State level. On an average, Cost A1 was ₹ 68012, which was highest on small farms (₹ 89602) and lowest on medium farms (₹ 61866). Here, the table clearly indicated high investment by small farms in cultivation of Onion per hectare compared to other farms categories.

Table T.48.2 Different cost concepts basis on different size holdings of Onion (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	68177	61866	89602	68012
Cost A_2	68177	61866	89602	68012
Cost B_1	74377	67492	97751	74197
Cost B_2	89230	83253	113826	89418
Cost C_1	80698	75117	106352	81089
Cost C_2	95552	90878	122428	96310
Cost C_3	105107	99966	134671	105941

Income measures

A comparison of various income measures from Onion cultivation are given in table T.48.3.

Table T.48.3 Returns from cultivation of Onion on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	21097	32840	7051	23469
Farm Business Income	21097	32840	7051	23469
Family Labour Income	43	11453	-17172	2063
Net Income	-6278	3828	-25774	-4829
Returns to Management	-15833	-5260	-38017	-14460
Benefit Cost Ratio	0.93	1.04	0.79	0.95

Returns over variable cost varied between ₹ 7051 to ₹ 32840 as shown in the above table. The family labour income per hectare of Onion cultivation varied from loss of ₹ 17172 in small farms to ₹ 11453 in medium farms. On an average, family labour income was worked out to be ₹ 2063 per hectare. The overall net income from Onion cultivation turned out to be non-beneficial with loss of ₹ 4829 per hectare. The overall returns to management from Onion cultivation turned out to be unprofitable. Benefit cost ratio of medium farms was highest (1.04) followed by large farms (0.93) and small farms (0.79). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were resourceful compared to small and large farms.

Cost of production per quintal

The cost of production of Onion across different land size categories is given in table T.48.4. On an average, ₹ 529 was spent on producing a quintal of Onion on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 603) followed by medium farms (₹ 543) and large farms (₹ 513) per quintal. This indicated that in case of Onion production, large farms had economies of scale on their farms as compared to small and medium farms.

Table T.48.4 Cost of production of Onion on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	366	369	442	374
Cost A_2	366	369	442	374
Cost B_1	399	403	482	408
Cost B_2	479	497	561	491
Cost C_1	433	449	524	445
Cost C_2	513	543	603	529
Cost C_3	564	597	664	582

***

46. Ivy Gourd

Cost structure

The table given below shows the breakup of the cost incurred by different size groups in various operations of Ivy gourd cultivation. On an average, ₹ 168844 was spent on Ivy Gourd per hectare. Cost of cultivation of small farm category was highest, ₹ 174229 followed by medium farms (₹ 135192). Sample for this crop was not available in large farms during study. Among the different components of cost of cultivation, contribution of human labour was highest (41.3 per cent) followed by Manure (6.9 per cent). Small farms had spent ₹ 72205 and ₹ 11810 on human labour and Plant Protection Charges respectively, which was exponentially high compared to medium farms category (₹ 53641 and ₹ 3325).

Table T.49.1 Item-wise break up of cost of cultivation/ha. of Ivy Gourd Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	--	--	36828	27.2	34985	20.1	35239	20.9
Family	--	--	16813	12.4	37220	21.4	34405	20.4
Bullock Pair	--	--	0	0.0	0	0.0	0	0.0
Mechanical Power	--	--	10984	8.1	7535	4.3	8011	4.7
Seed	--	--	2938	2.2	5617	3.2	5247	3.1
Manure	--	--	10000	7.4	11980	6.9	11707	6.9
Fertilizer	--	--	10350	7.7	8100	4.6	8410	5.0
Irrigation Charges	--	--	3333	2.5	3181	1.8	3202	1.9
Plant Protection Charges	--	--	3325	2.5	11810	6.8	10640	6.3
Incidental charges	--	--	3469	2.6	4487	2.6	4347	2.6
Repairs on Farm Implements	--	--	58	0.0	89	0.1	85	0.1
Insurance Premium	--	--	0	0.0	0	0.0	0	0.0
Rab Material	--	--	0	0.0	0	0.0	0	0.0
Interest on working Capital	--	--	4877	3.6	5267	3.0	5213	3.1
Depreciation	--	--	375	0.3	405	0.2	401	0.2
Land Revenue and Other Taxes	--	--	23	0.0	25	0.0	25	0.0
Rental Value of Land	--	--	30935	22.9	42574	24.4	40969	24.3
Interest on Fixed Capital	--	--	884	0.7	954	0.5	945	0.6
Amortization Cost	--	--	0	0.0	0	0.0	0	0.0
Total Cost	**--**	**--**	**135192**	**100.0**	**174229**	**100.0**	**168844**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Ivy Gourd cultivation for different size groups are given in table T.49.2. The total cost of cultivation (Cost C2) per hectare of Ivy Gourd amounted to an average of ₹ 168844 at State level. On an average, Cost A1 was ₹ 92526, which was highest on small farms (₹ 93481) and lowest on medium farms (₹ 86561). Here, the table clearly indicates high investment by small farms compared to medium farm in cultivation of Ivy Gourd per hectare.

Table T.49.2 Different cost concepts basis on different size holdings of Ivy Gourd (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	--	86561	93481	92526
Cost A_2	--	86561	93481	92526
Cost B_1	--	87444	94435	93471
Cost B_2	--	118379	137009	134439
Cost C_1	--	104257	131655	127876
Cost C_2	--	135192	174229	168844
Cost C_3	--	148711	191652	185729

Income measures

A comparison of various income measures from Ivy Gourd cultivation are given in table T.49.3.

Table T.49.3 Returns from cultivation of Ivy Gourd on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	--	99189	162115	153436
Farm Business Income	--	99189	162115	153436
Family Labour Income	--	67371	118587	111523
Net Income	--	50558	81367	77118
Returns to Management	--	37039	63944	60233
Benefit Cost Ratio	--	1.37	1.47	1.46

Returns over variable cost varied between ₹ 99189 to ₹ 162115 as shown in the above table. The family labour income per hectare of Ivy Gourd cultivation varied from ₹ 67371 in medium farms to ₹ 118587 in large farms. On an average, family labour income was worked out to be ₹ 111523 per hectare. The overall net income from Ivy Gourd cultivation was ₹ 77118 per hectare. The overall returns to management from Ivy Gourd cultivation turned out to be profitable by ₹ 60233 per hectare. Benefit cost ratio of small farms was highest (1.47) followed by medium farms (1.37). Overall, it indicated that inspite of varied level of investment by different size of farms, small farms were more efficient than medium farms.

Cost of production per quintal

The cost of production of Ivy Gourd across different land size categories is given in table T.49.4. On an average, ₹ 1190 was spent on producing a quintal of Ivy Gourd on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 1202) followed by small farms (₹ 1188) per quintal. This indicated that in case of Ivy Gourd production, small farms had economies of scale on their farms as compared to medium farms.

Table T.49.4 Cost of production of Ivy Gourd on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	--	769	638	652
Cost A_2	--	769	638	652
Cost B_1	--	777	644	659
Cost B_2	--	1052	935	947
Cost C_1	--	927	898	901
Cost C_2	--	1202	1188	1190
Cost C_3	--	1322	1307	1309

***

47. Potato

Cost structure

The table T.50.1 shows the breakup of the cost incurred by different size groups in various operations of Potato cultivation. On an average, ₹ 220158 was spent on Potato per hectare. Cost of cultivation of large farm category was highest, ₹ 239118 followed by medium farms (₹ 204214). Sample for this crop was not available in small farms during study. Among the different components of cost of cultivation, contribution of Seed was highest (23.4 per cent) followed by human labour (19.7 per cent). Large farms had spent ₹ 51185 and ₹ 19211 on human labour and Incidental Charges respectively, which was exponentially high compared to medium farms category (₹ 36977 and ₹ 16798).

Table T.50.1 Item-wise break up of cost of cultivation/ha. of Potato Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	43389	18.1	23650	11.6	--	--	32667	14.8
Family	7796	3.3	13326	6.5	--	--	10800	4.9
Bullock Pair	0	0.0	0	0.0	--	--	0	0.0
Mechanical Power	12960	5.4	18231	8.9	--	--	15823	7.2
Seed	51007	21.3	51850	25.4	--	--	51465	23.4
Manure	18215	7.6	7918	3.9	--	--	12622	5.7
Fertilizer	9424	3.9	6757	3.3	--	--	7975	3.6
Irrigation Charges	1470	0.6	1957	1.0	--	--	1735	0.8
Plant Protection Charges	9275	3.9	7704	3.8	--	--	8421	3.8
Incidental charges	19211	8.0	16798	8.2	--	--	17900	8.1
Repairs on Farm Implements	14	0.0	29	0.0	--	--	22	0.0
Insurance Premium	0	0.0	0	0.0	--	--	0	0.0
Rab Material	0	0.0	0	0.0	--	--	0	0.0
Interest on working Capital	9898	4.1	8094	4.0	--	--	8918	4.1
Depreciation	761	0.3	622	0.3	--	--	685	0.3
Land Revenue and Other Taxes	47	0.0	39	0.0	--	--	43	0.0
Rental Value of Land	53856	22.5	45773	22.4	--	--	49465	22.5
Interest on Fixed Capital	1793	0.7	1466	0.7	--	--	1616	0.7
Amortization Cost	0	0.0	0	0.0	--	--	0	0.0
Total Cost	**239118**	**100.0**	**204214**	**100.0**	**--**	**--**	**220158**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Potato cultivation for different size groups are given in table T.50.2. The total cost of cultivation (Cost C2) per hectare of Potato amounted to an average of ₹ 220158 at State level. On an average, Cost A1 was ₹ 158277, which was highest on large farms (₹ 175672) and lowest on medium farms (₹ 143648). Here, the table clearly indicated high investment by large farms compared to medium farms in cultivation of Potato per hectare.

Table T.50.2 Different cost concepts basis on different size holdings of Potato (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	175672	143648	--	158277
Cost A_2	175672	143648	--	158277
Cost B_1	177465	145115	--	159892
Cost B_2	231321	190888	--	209358
Cost C_1	185261	158441	--	170693
Cost C_2	239118	204214	--	220158
Cost C_3	263029	224635	--	242174

Income measures

A comparison of various income measures from Potato cultivation are given in table T.50.3.

Table T.50.3 Returns from cultivation of Potato on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	147749	131222	--	138771
Farm Business Income	147749	131222	--	138771
Family Labour Income	92100	83982	--	87690
Net Income	84304	70656	--	76890
Returns to Management	60392	50235	--	54874
Benefit Cost Ratio	1.35	1.35	--	1.35

Returns over variable cost varied between ₹ 131222 to ₹ 147749 as shown in the above table. The family labour income per hectare of Potato cultivation varied from ₹ 83982 in medium farms to ₹ 92100 in large farms. On an average, family labour income was worked out to be ₹ 87690 per hectare. The overall net income from Potato cultivation was ₹ 76890 per hectare. The overall returns to management from Potato cultivation turned out to be profitable by ₹ 54874 per hectare. Benefit cost ratio of large and medium farms was equal (1.35). Overall, it indicated that cultivation of Potato per hectare was economically viable and profitable for different farm sizes.

Cost of production per quintal

The cost of production of Potato across different land size categories is given in table T.50.4. On an average, ₹ 886 was spent on producing a quintal of Potato on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 893) followed by large farms (₹ 879) per quintal. This indicated that in case of Potato production, large farms had economies of scale on their farms as compared to medium farms.

Table T.50.4 Cost of production of Potato on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	646	628	--	637
Cost A_2	646	628	--	637
Cost B_1	653	634	--	643
Cost B_2	851	834	--	842
Cost C_1	681	693	--	687
Cost C_2	879	893	--	886
Cost C_3	967	982	--	975

***

48. Sweet Potato

Cost structure

The table T.51.1 shows the breakup of the cost incurred by different size groups in various operations of Sweet Potato cultivation. On an average, ₹ 117018 was spent on Sweet Potato per hectare. Cost of cultivation of small farm category was highest, ₹ 151624 followed by large farms (₹ 126448) and medium farms (₹ 107498). Among the different components of cost of cultivation, contribution of human labour was highest (24.5 per cent) followed by Seed (9.3 per cent). Large farms had spent ₹ 29075 on human labour, which was exponentially high compared to medium farms (₹ 28452) and small farms category (₹ 27791).

Table T.51.1 Item-wise break up of cost of cultivation/ha. of Sweet Potato Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	16070	12.7	16798	15.6	19322	12.7	16680	14.3
Family	13005	10.3	11654	10.8	8469	5.6	11962	10.2
Bullock Pair	3100	2.5	134	0.1	2750	1.8	1373	1.2
Mechanical Power	4840	3.8	11710	10.9	5897	3.9	8855	7.6
Seed	9870	7.8	11416	10.6	11625	7.7	10862	9.3
Manure	9025	7.1	4517	4.2	18438	12.2	6982	6.0
Fertilizer	11155	8.8	8406	7.8	10156	6.7	9515	8.1
Irrigation Charges	4869	3.9	3025	2.8	12797	8.4	4272	3.7
Plant Protection Charges	405	0.3	506	0.5	1038	0.7	500	0.4
Incidental charges	14436	11.4	7258	6.8	12500	8.2	10192	8.7
Repairs on Farm Implements	224	0.2	117	0.1	813	0.5	197	0.2
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4440	3.5	3833	3.6	5720	3.8	4166	3.6
Depreciation	341	0.3	295	0.3	440	0.3	320	0.3
Land Revenue and Other Taxes	21	0.0	18	0.0	27	0.0	20	0.0
Rental Value of Land	33843	26.8	27117	25.2	40598	26.8	30369	26.0
Interest on Fixed Capital	804	0.6	694	0.6	1036	0.7	755	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**126448**	**100.0**	**107498**	**100.0**	**151624**	**100.0**	**117018**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Sweet Potato cultivation for different size groups are given in table T.51.2. The total cost of cultivation (Cost C2) per hectare of Sweet Potato amounted to an average of ₹ 117018 at State level. On an average, Cost A1 was ₹ 73933, which was highest on small farms (₹ 101521) and lowest on medium farms (₹ 68032). Here, the table clearly indicated high investment by small farms in cultivation of Sweet Potato per hectare compared to other farms categories.

Table T.51.2 Different cost concepts basis on different size holdings of Sweet Potato (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	78796	68032	101521	73933
Cost A_2	78796	68032	101521	73933
Cost B_1	79601	68726	102558	74688
Cost B_2	113443	95844	143155	105057
Cost C_1	92606	80380	111027	86650
Cost C_2	126448	107498	151624	117018
Cost C_3	139093	118247	166787	128720

Income measures

A comparison of various income measures from Sweet Potato cultivation are given in table T.51.3.

Table T.51.3 Returns from cultivation of Sweet Potato on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	124389	94783	142229	108398
Farm Business Income	124389	94783	142229	108398
Family Labour Income	89742	66971	100595	77275
Net Income	76737	55317	92126	65313
Returns to Management	64092	44568	76963	53611
Benefit Cost Ratio	1.61	1.51	1.61	1.56

Returns over variable cost varied between ₹ 94783 to ₹ 142229 as shown in the above table. The family labour income per hectare of Sweet Potato cultivation varied from ₹ 66971 in medium farms to ₹ 100595 in small farms. On an average, family labour income was worked out to be ₹ 77275 per hectare. The overall net income from Sweet Potato cultivation was ₹ 65313 per hectare, wherein net income of small farms was highest (₹ 92126) and lowest for medium farms (₹ 55317). The overall returns to management from Sweet Potato cultivation was ₹ 53611 per hectare. Benefit cost ratio of large and small farms was highest (1.61) followed by medium farms (1.51). Overall, it indicated that inspite of varied level of investment by different size of farms, large and small farms were equally more efficient than medium farms.

Cost of production per quintal

The cost of production of Sweet Potato across different land size categories is given in table T.51.4. On an average, ₹ 1143 was spent on producing a quintal of Sweet Potato on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1175) followed by medium farms (₹ 1141) and small farms (₹ 1011) per quintal. This indicated that in case of Sweet Potato production, small farms were more efficient and had economies of scale on their farms as compared to large and medium farms.

Table T.51.4 Cost of production of Sweet Potato on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	732	722	677	722
Cost A_2	732	722	677	722
Cost B_1	740	729	684	730
Cost B_2	1054	1017	954	1026
Cost C_1	861	853	740	846
Cost C_2	1175	1141	1011	1143
Cost C_3	1293	1255	1112	1257

***

49. Pumpkin

Cost structure

The table given below shows the breakup of the cost incurred by different size groups in various operations of Pumpkin cultivation. On an average, ₹ 173848 was spent on Pumpkin per hectare. Cost of cultivation of medium farm category was highest, ₹ 185600 followed by large farms (₹ 163325). Sample for this crop was not available in small farms during study. Among the different components of cost of cultivation, contribution of human labour was highest (26.7 per cent) followed by Mechanical Power (11.8 per cent). Medium farms had spent ₹ 52763 on human labour, which was high compared to large farms category (₹ 40829).

Table T.52.1 Item-wise break up of cost of cultivation/ha. of Pumpkin Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	26780	16.4	33793	18.2	--	--	30093	17.3
Family	14049	8.6	18971	10.2	--	--	16374	9.4
Bullock Pair	0	0.0	0	0.0	--	--	0	0.0
Mechanical Power	20160	12.3	20774	11.2	--	--	20450	11.8
Seed	3851	2.4	4183	2.3	--	--	4008	2.3
Manure	3332	2.0	3551	1.9	--	--	3435	2.0
Fertilizer	7658	4.7	9160	4.9	--	--	8368	4.8
Irrigation Charges	2181	1.3	2477	1.3	--	--	2321	1.3
Plant Protection Charges	7386	4.5	8843	4.8	--	--	8074	4.6
Incidental charges	16097	9.9	19938	10.7	--	--	17911	10.3
Repairs on Farm Implements	27	0.0	38	0.0	--	--	32	0.0
Insurance Premium	0	0.0	0	0.0	--	--	0	0.0
Rab Material	0	0.0	0	0.0	--	--	0	0.0
Interest on working Capital	5248	3.2	6165	3.3	--	--	5682	3.3
Depreciation	403	0.2	474	0.3	--	--	437	0.3
Land Revenue and Other Taxes	25	0.0	30	0.0	--	--	27	0.0
Rental Value of Land	55176	33.8	56087	30.2	--	--	55607	32.0
Interest on Fixed Capital	951	0.6	1117	0.6	--	--	1029	0.6
Amortization Cost	0	0.0	0	0.0	--	--	0	0.0
Total Cost	**163325**	**100.0**	**185600**	**100.0**	**--**	**--**	**173848**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Pumpkin cultivation for different size groups are given in table T.52.2. The total cost of cultivation (Cost C2) per hectare of Pumpkin amounted to an average of ₹ 173848 at State level. On an average, Cost A1 was ₹ 100839, which was highest on medium farms (₹ 109425) and lowest on large farms (₹ 93149). Here, the table depicts high investment by medium farms compared to large farms in cultivation of Pumpkin per hectare.

Table T.52.2 Different cost concepts basis on different size holdings of Pumpkin (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	93149	109425	--	100839
Cost A_2	93149	109425	--	100839
Cost B_1	94100	110542	--	101868
Cost B_2	149276	166629	--	157474
Cost C_1	108149	129513	--	118242
Cost C_2	163325	185600	--	173848
Cost C_3	179657	204160	--	191233

Income measures

A comparison of various income measures from Pumpkin cultivation are given in table T.52.3.

Table T.52.3 Returns from cultivation of Pumpkin on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	238058	227276	--	232964
Farm Business Income	238058	227276	--	232964
Family Labour Income	181931	170072	--	176328
Net Income	167883	151101	--	159954
Returns to Management	151550	132541	--	142569
Benefit Cost Ratio	2.03	1.81	--	1.92

Returns over variable cost varied between ₹ 227276 to ₹ 238058 as shown in the above table. The family labour income per hectare of Pumpkin cultivation varied from ₹ 170072 in medium farms to ₹ 181931 in large farms. On an average, family labour income was worked out to be ₹ 176328 per hectare. The overall net income from Pumpkin cultivation was ₹ 159954 per hectare. The overall returns to management from Pumpkin cultivation was ₹ 142569 per hectare. Benefit cost ratio of large farms was highest (2.03) followed by medium farms (1.81). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium farms.

Cost of production per quintal

The cost of production of Pumpkin across different land size categories is given in table T.52.4. On an average, ₹ 360 was spent on producing a quintal of Pumpkin on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 387) followed by large farms (₹ 336) per quintal. This indicated that in case of Pumpkin production, large farms had economies of scale on their farms as compared to medium farms.

Table T.52.4 Cost of production of Pumpkin on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	192	228	--	209
Cost A_2	192	228	--	209
Cost B_1	194	230	--	211
Cost B_2	307	347	--	326
Cost C_1	223	270	--	245
Cost C_2	336	387	--	360
Cost C_3	370	425	--	396

***

50. Tomato

Cost structure

The table T.53.1 shows the breakup of the cost incurred by different size groups in various operations of Tomato cultivation. On an average, ₹ 202933 was spent on Tomato per hectare. Cost of cultivation of small farm category was highest, ₹ 223765 followed by large farms (₹ 204403) and medium farms (₹ 189872). Among the different components of cost of cultivation, contribution of human labour was highest (32.4 per cent) followed by Incidental Charges (9.7 per cent). Small farms had spent ₹ 83815 on human labour, which was exponentially high compared to medium farms (₹ 63340) and small farms category (₹ 59525).

Table T.53.1 Item-wise break up of cost of cultivation/ha. of Tomato Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	39482	19.3	37645	19.8	47072	21.0	40287	19.9
Family	20043	9.8	25695	13.5	36743	16.4	25286	12.5
Bullock Pair	208	0.1	687	0.4	840	0.4	501	0.2
Mechanical Power	11967	5.9	9697	5.1	11761	5.3	11115	5.5
Seed	16604	8.1	14022	7.4	16612	7.4	15681	7.7
Manure	12367	6.1	9518	5.0	8257	3.7	10554	5.2
Fertilizer	12304	6.0	13150	6.9	14635	6.5	13056	6.4
Irrigation Charges	2230	1.1	2160	1.1	4313	1.9	2606	1.3
Plant Protection Charges	9333	4.6	8767	4.6	9451	4.2	9153	4.5
Incidental charges	21348	10.4	18166	9.6	18852	8.4	19728	9.7
Repairs on Farm Implements	25	0.0	56	0.0	104	0.0	52	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	7552	3.7	6832	3.6	7914	3.5	7364	3.6
Depreciation	381	0.2	345	0.2	400	0.2	372	0.2
Land Revenue and Other Taxes	32	0.0	29	0.0	33	0.0	31	0.0
Rental Value of Land	50018	24.5	42643	22.5	46246	20.7	46651	23.0
Interest on Fixed Capital	508	0.2	460	0.2	533	0.2	496	0.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**204403**	**100.0**	**189872**	**100.0**	**223765**	**100.0**	**202933**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Tomato cultivation for different size groups are given in table T.53.2.The total cost of cultivation (Cost C2) per hectare of Tomato amounted to an average of ₹ 202933 at State level. On an average, Cost A1 was ₹ 130501, which was highest on small farms (₹ 140243) and lowest on medium farms (₹ 121074). Here, the table depicts high investment by small farms in cultivation of Tomato per hectare compared to other farms categories.

Table T.53.2 Different cost concepts basis on different size holdings of Tomato (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	133833	121074	140243	130501
Cost A_2	133833	121074	140243	130501
Cost B_1	134341	121534	140776	130996
Cost B_2	184360	164176	187021	177647
Cost C_1	154384	147229	177519	156282
Cost C_2	204403	189872	223765	202933
Cost C_3	224843	208859	246141	223226

Income measures

A comparison of various income measures from Tomato cultivation are given in table T.53.3.

Table T.53.3 Returns from cultivation of Tomato on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	166469	134954	137430	149589
Farm Business Income	166469	134954	137430	149589
Family Labour Income	115942	91851	90652	102442
Net Income	95899	66156	53909	77157
Returns to Management	75459	47169	31532	56863
Benefit Cost Ratio	1.47	1.35	1.24	1.38

Returns over variable cost varied between ₹ 134954 to ₹ 166469 as shown in the above table. The family labour income per hectare of Tomato cultivation varied from ₹ 90652 in small farms to ₹ 115942 in large farms. On an average, family labour income was worked out to be ₹ 102442 per hectare. The overall net income from Tomato cultivation was ₹ 77157 per hectare, wherein net income of large farms was highest (₹ 95899) and lowest for small farms (₹ 53909). The overall returns to management from Tomato cultivation was ₹ 56863 per hectare. Benefit cost ratio of large farms was highest (1.47) followed by medium farms (1.35) and small farms (1.24). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Tomato across different land size categories is given in table T.53.4. On an average, ₹ 756 was spent on producing a quintal of Tomato on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 791) followed by small farms (₹ 783) and large farms (₹ 722) per quintal. This indicated that in case of Tomato production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.53.4 Cost of production of Tomato on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	473	504	491	486
Cost A_2	473	504	491	486
Cost B_1	475	506	492	488
Cost B_2	651	684	654	662
Cost C_1	545	613	621	583
Cost C_2	722	791	783	756
Cost C_3	794	870	861	832

***

51. Bittergourd

Cost structure

The table T.54.1 shows the breakup of the cost incurred by different size groups in various operations of Bittergourd cultivation. On an average, ₹ 181836 was spent on Bittergourd per hectare. Cost of cultivation of small farm category was highest, ₹ 196933 followed by medium farms (₹ 168957) and large farms (₹ 147879). Among the different components of cost of cultivation, contribution of human labour was highest (39.3 per cent) followed by Mechanical Power (7.1 per cent). Small farms had spent ₹ 84514 on human labour, which was exponentially high compared to medium farms (₹ 58124) and large farms category (₹ 45499).

Table T.54.1 Item-wise break up of cost of cultivation/ha. of Bittergourd Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	31574	21.4	36001	21.3	53495	27.2	45386	25.0
Family	13926	9.4	22123	13.1	31019	15.8	25991	14.3
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	10554	7.1	10846	6.4	14532	7.4	12921	7.1
Seed	6374	4.3	6220	3.7	2844	1.4	4303	2.4
Manure	3264	2.2	5144	3.0	3814	1.9	4094	2.3
Fertilizer	7893	5.3	12190	7.2	14119	7.2	12646	7.0
Irrigation Charges	2164	1.5	2936	1.7	3591	1.8	3195	1.8
Plant Protection Charges	11690	7.9	13784	8.2	10784	5.5	11740	6.5
Incidental charges	6932	4.7	8392	5.0	7936	4.0	7908	4.3
Repairs on Farm Implements	26	0.0	47	0.0	133	0.1	93	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4828	3.3	5734	3.4	6675	3.4	6137	3.4
Depreciation	163	0.1	193	0.1	225	0.1	207	0.1
Land Revenue and Other Taxes	20	0.0	24	0.0	28	0.0	26	0.0
Rental Value of Land	48227	32.6	45034	26.7	47400	24.1	46880	25.8
Interest on Fixed Capital	244	0.2	290	0.2	338	0.2	310	0.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**147879**	**100.0**	**168957**	**100.0**	**196933**	**100.0**	**181836**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Bittergourd cultivation for different size groups are given in table T.54.2. The total cost of cultivation (Cost C2) per hectare of Bittergourd amounted to an average of ₹ 181836 at State level. On an average, Cost A1 was ₹ 108655, which was highest on small farms (₹ 118176) and lowest on large farms (₹ 85483). Here, the table clearly indicates high investment by small farms in cultivation of Bittergourd per hectare compared to other farms categories.

Table T.54.2 Different cost concepts basis on different size holdings of Bittergourd (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	85483	101510	118176	108655
Cost A_2	85483	101510	118176	108655
Cost B_1	85727	101800	118514	108965
Cost B_2	133954	146834	165914	155845
Cost C_1	99653	123923	149533	134956
Cost C_2	147879	168957	196933	181836
Cost C_3	162667	185853	216627	200020

Income measures

A comparison of various income measures from Bittergourd cultivation are given in table T.54.3.

Table T.54.3 Returns from cultivation of Bittergourd on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	204001	168840	166395	172781
Farm Business Income	204001	168840	166395	172781
Family Labour Income	155530	123516	118657	125590
Net Income	141604	101393	87638	99599
Returns to Management	126816	84497	67944	81415
Benefit Cost Ratio	1.96	1.60	1.45	1.55

Returns over variable cost varied between ₹ 166395 to ₹ 204001 as shown in the above table. The family labour income per hectare of Bittergourd cultivation varied from ₹ 118657 in small farms to ₹ 155530 in large farms. On an average, family labour income was worked out to be ₹ 125590 per hectare. The overall net income from Bittergourd cultivation was ₹ 99599 per hectare, wherein net income of large farms was highest (₹ 141604) and lowest for small farms (₹ 87638). The overall returns to management from Bittergourd cultivation turned out to be ₹ 81415 per hectare. Benefit cost ratio of large farms was highest (1.96) followed by medium farms (1.60) and small farms (1.45). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Bittergourd across different land size categories is given in table T.54.4. On an average, ₹ 1558 was spent on producing a quintal of Bittergourd on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1602) followed by medium farms (₹ 1546) and large farms (₹ 1390) per quintal. This indicated that in case of Bittergourd production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.54.4 Cost of production of Bittergourd on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	803	929	962	931
Cost A_2	803	929	962	931
Cost B_1	806	931	964	934
Cost B_2	1259	1343	1350	1336
Cost C_1	937	1134	1217	1157
Cost C_2	1390	1546	1602	1558
Cost C_3	1529	1700	1763	1714

***

52. Bottlegourd

Cost structure

The table T.55.1 shows the breakup of the cost incurred by different size groups in various operations of Bottlegourd cultivation. On an average, ₹ 116114 was spent on Bottlegourd per hectare. Cost of cultivation of small farm category was highest, ₹ 129136 followed by medium farms (₹ 119393) and large farms (₹ 96334). Among the different components of cost of cultivation, contribution of human labour was highest (49.2 per cent). Small farms had spent ₹ 64363 and ₹ 8727 on human labour and Manure respectively, which was high compared to medium farms (₹ 59752 and ₹ 3484) and small farms category (₹ 44867 and ₹ 3656).

Table T.55.1 Item-wise break up of cost of cultivation/ha. of Bottlegourd Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	27789	28.8	33760	28.3	25514	19.8	30113	25.9
Family	17078	17.7	25992	21.8	38848	30.1	27087	23.3
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	4102	4.3	8038	6.7	6804	5.3	6726	5.8
Seed	3840	4.0	4492	3.8	5442	4.2	4574	3.9
Manure	3656	3.8	3484	2.9	8727	6.8	4890	4.2
Fertilizer	6241	6.5	7348	6.2	6318	4.9	6802	5.9
Irrigation Charges	2068	2.1	3482	2.9	4698	3.6	3441	3.0
Plant Protection Charges	5050	5.2	5400	4.5	5967	4.6	5459	4.7
Incidental charges	3663	3.8	4061	3.4	4418	3.4	4054	3.5
Repairs on Farm Implements	19	0.0	29	0.0	60	0.0	34	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	3386	3.5	4206	3.5	4077	3.2	3966	3.4
Depreciation	260	0.3	323	0.3	313	0.2	305	0.3
Land Revenue and Other Taxes	16	0.0	20	0.0	20	0.0	19	0.0
Rental Value of Land	18554	19.3	17996	15.1	17190	13.3	17927	15.4
Interest on Fixed Capital	613	0.6	762	0.6	739	0.6	718	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**96334**	**100.0**	**119393**	**100.0**	**129136**	**100.0**	**116114**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Bottlegourd cultivation for different size groups are given in table T.55.2.The total cost of cultivation (Cost C2) per hectare of Bottlegourd amounted to an average of ₹ 116114 at State level. On an average, Cost A1 was ₹ 70382, which was highest on medium farms (₹ 74643) and lowest on large farms (₹ 60089). Here, the table depicts high investment by medium farms in cultivation of Bottlegourd per hectare compared to other farms categories.

Table T.55.2 Different cost concepts basis on different size holdings of Bottlegourd (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	60089	74643	72358	70382
Cost A_2	60089	74643	72358	70382
Cost B_1	60702	75405	73097	71101
Cost B_2	79256	93401	90287	89028
Cost C_1	77780	101397	111946	98187
Cost C_2	96334	119393	129136	116114
Cost C_3	105968	131332	142049	127726

Income measures

A comparison of various income measures from Bottlegourd cultivation are given in table T.55.3.

Table T.55.3 Returns from cultivation of Bottlegourd on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	51333	33454	30899	37295
Farm Business Income	51333	33454	30899	37295
Family Labour Income	32166	14696	12970	18649
Net Income	15088	-11296	-25878	-8437
Returns to Management	5454	-23235	-38792	-20049
Benefit Cost Ratio	1.16	0.91	0.80	0.93

Returns over variable cost varied between ₹ 30899 to ₹ 51333 as shown in the above table. The family labour income per hectare of Bottlegourd cultivation varied from ₹ 12970 in small farms to ₹ 32166 in large farms. On an average, family labour income was worked out to be ₹ 18649 per hectare. The overall net income from Bottlegourd cultivation turned out to be at loss with ₹ 8437 per hectare. The overall returns to management from Bottlegourd cultivation turned out to be unprofitable. Benefit cost ratio of large farms was highest (1.16) followed by medium farms (0.91) and small farms (0.80). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Bottlegourd across different land size categories is given in table T.55.4. On an average, ₹ 1337 was spent on producing a quintal of Bottlegourd on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1420) followed by medium farms (₹ 1361) and large farms (₹ 1190) per quintal. This indicated that in case of Bottlegourd production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.55.4 Cost of production of Bottlegourd on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	742	851	796	810
Cost A_2	742	851	796	810
Cost B_1	750	859	804	819
Cost B_2	979	1064	993	1025
Cost C_1	961	1156	1231	1131
Cost C_2	1190	1361	1420	1337
Cost C_3	1309	1497	1563	1471

***

53. Pointed Gourd

Cost structure

The table T.56.1 shows the breakup of the cost incurred by different size groups in various operations of Pointed Gourd cultivation. On an average, ₹ 113484 was spent on Pointed Gourd per hectare. Cost of cultivation of large farm category was highest, ₹ 115855 followed by medium farms (₹ 113319) and small farms (₹ 111774). Among the different components of cost of cultivation, contribution of human labour was highest (51.9 per cent) followed by Plant Potection Charges (7.0 per cent). Small farms had spent ₹ 60927 on human labour, which was high compared to large farms (₹ 58700) and medium farms category (₹ 58224).

Table T.56.1 Item-wise break up of cost of cultivation/ha. of Pointed Gourd Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	38450	33.2	27030	23.9	20119	18.0	27785	24.5
Family	20250	17.5	31193	27.5	40808	36.5	31092	27.4
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	4842	4.2	6656	5.9	5304	4.7	6027	5.3
Seed	3833	3.3	4219	3.7	4783	4.3	4262	3.8
Manure	0	0.0	0	0.0	0	0.0	0	0.0
Fertilizer	7879	6.8	7644	6.7	6577	5.9	7467	6.6
Irrigation Charges	2615	2.3	2296	2.0	3780	3.4	2666	2.3
Plant Protection Charges	8163	7.0	8537	7.5	6265	5.6	7993	7.0
Incidental charges	4271	3.7	3620	3.2	3738	3.3	3770	3.3
Repairs on Farm Implements	21	0.0	37	0.0	42	0.0	35	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4204	3.6	3602	3.2	3036	2.7	3600	3.2
Depreciation	323	0.3	277	0.2	233	0.2	277	0.2
Land Revenue and Other Taxes	20	0.0	17	0.0	15	0.0	17	0.0
Rental Value of Land	20223	17.5	17537	15.5	16524	14.8	17842	15.7
Interest on Fixed Capital	762	0.7	653	0.6	550	0.5	652	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**115855**	**100.0**	**113319**	**100.0**	**111774**	**100.0**	**113484**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Pointed Gourd cultivation for different size groups are given in table T.56.2. The total cost of cultivation (Cost C2) per hectare of Pointed Gourd amounted to an average of ₹ 113484 at State level. On an average, Cost A1 was ₹ 63898, which was highest on large farms (₹ 74621) and lowest on small farms (₹ 53892). Here, the table clearly indicates high investment by large farms in cultivation of Pointed Gourd per hectare compared to other farms categories.

Table T.56.2 Different cost concepts basis on different size holdings of Pointed Gourd (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	74621	63936	53892	63898
Cost A_2	74621	63936	53892	63898
Cost B_1	75383	64589	54443	64551
Cost B_2	95605	82125	70967	82392
Cost C_1	95633	95782	95250	95643
Cost C_2	115855	113319	111774	113484
Cost C_3	127441	124650	122952	124833

Income measures

A comparison of various income measures from Pointed Gourd cultivation are given in table T.56.3.

Table T.56.3 Returns from cultivation of Pointed Gourd on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	46837	41388	45338	43256
Farm Business Income	46837	41388	45338	43256
Family Labour Income	25853	23199	28264	24762
Net Income	5603	-7995	-12543	-6330
Returns to Management	-5983	-19326	-23721	-17678
Benefit Cost Ratio	1.05	0.93	0.89	0.94

Returns over variable cost varied between ₹ 41388 to ₹ 46837 as shown in the above table. The family labour income per hectare of Pointed Gourd cultivation varied from ₹ 23199 in medium farms to ₹ 28264 in small farms. On an average, family labour income was worked out to be ₹ 24762 per hectare. The overall net income from Pointed Gourd cultivation turned out to be at loss with ₹ 6330 per hectare. The overall returns to management from Pointed Gourd cultivation turned out to be unprofitable. Benefit cost ratio of large farms was highest (1.05) followed by medium farms (0.93) and small farms (0.89). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Pointed Gourd across different land size categories is given in table T.56.4. On an average, ₹ 1657 was spent on producing a quintal of Pointed Gourd on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 1683) followed by small farms (₹ 1633) and large farms (₹ 1607) per quintal. This indicated that in case of Pointed Gourd production, large farms had economies of scale on their farms as compared to small and medium farms.

Table T.56.4 Cost of production of Pointed Gourd on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1035	950	787	933
Cost A_2	1035	950	787	933
Cost B_1	1046	959	795	943
Cost B_2	1326	1220	1037	1203
Cost C_1	1327	1423	1391	1397
Cost C_2	1607	1683	1633	1657
Cost C_3	1768	1851	1796	1823

***

54. Ridge Gourd

Cost structure

The table T.57.1 shows the breakup of the cost incurred by different size groups in various operations of Ridge Gourd cultivation. On an average, ₹ 156772 was spent on Ridge Gourd per hectare. Cost of cultivation of small farm category was highest, ₹ 216346 followed by medium farms (₹ 143727) and large farms (₹ 142469). Among the different components of cost of cultivation, contribution of human labour was highest (41.9 per cent) followed by Mechanical Power (8.1 per cent). Small farms had spent ₹ 16847 and ₹ 16236 on Fertilizers & Plant Protection Charges respectively, which was exponentially high compared to medium farms (₹ 9790 and ₹ 8052) and large farms category (₹ 8593 and ₹ 8373).

Table T.57.1 Item-wise break up of cost of cultivation/ha. of Ridgegourd Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	44491	31.2	36095	25.1	30053	13.9	38334	24.5
Family	16928	11.9	27187	18.9	49824	23.0	27298	17.4
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	13893	9.8	11186	7.8	13387	6.2	12682	8.1
Seed	3524	2.5	4280	3.0	3785	1.7	3885	2.5
Manure	4212	3.0	3467	2.4	5393	2.5	4125	2.6
Fertilizer	8593	6.0	9790	6.8	16847	7.8	10627	6.8
Irrigation Charges	2350	1.6	2450	1.7	1924	0.9	2312	1.5
Plant Protection Charges	8373	5.9	8052	5.6	16236	7.5	9708	6.2
Incidental charges	7074	5.0	7388	5.1	15155	7.0	8711	5.6
Repairs on Farm Implements	21	0.0	46	0.0	197	0.1	64	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5552	3.9	4965	3.5	6179	2.9	5427	3.5
Depreciation	216	0.2	193	0.1	241	0.1	211	0.1
Land Revenue and Other Taxes	27	0.0	24	0.0	30	0.0	26	0.0
Rental Value of Land	26889	18.9	28314	19.7	56735	26.2	33046	21.1
Interest on Fixed Capital	324	0.2	290	0.2	361	0.2	317	0.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**142469**	**100.0**	**143727**	**100.0**	**216346**	**100.0**	**156772**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Ridge Gourd cultivation for different size groups are given in table T.57.2.The total cost of cultivation (Cost C2) per hectare of Ridge Gourd amounted to an average of ₹ 156772 at State level. On an average, Cost A1 was ₹ 96112, which was highest on small farms (₹ 109426) and lowest on medium farms (₹ 87936). Here, the table clearly indicates high investment by small farms in cultivation of Ridge Gourd per hectare compared to other farms categories.

Table T.57.2 Different cost concepts basis on different size holdings of Ridgegourd (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	98327	87936	109426	96112
Cost A_2	98327	87936	109426	96112
Cost B_1	98651	88226	109787	96429
Cost B_2	125541	116540	166522	129475
Cost C_1	115579	115413	159611	123726
Cost C_2	142469	143727	216346	156772
Cost C_3	156715	158100	237981	172449

Income measures

A comparison of various income measures from Ridge Gourd cultivation are given in table T.57.3.

Table T.57.3 Returns from cultivation of Ridgegourd on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	63172	82094	231163	102322
Farm Business Income	63172	82094	231163	102322
Family Labour Income	35958	53490	174067	68959
Net Income	19030	26303	124243	41661
Returns to Management	4784	11930	102608	25984
Benefit Cost Ratio	1.13	1.18	1.57	1.27

Returns over variable cost varied between ₹ 63172 to ₹ 231163 as shown in the above table. The family labour income per hectare of Ridge Gourd cultivation varied from ₹ 35958 in large farms to ₹ 174067 in small farms. On an average, family labour income was worked out to be ₹ 68959 per hectare. The overall net income from Ridge Gourd cultivation was ₹ 41661 per hectare, wherein net income of small farms was highest (₹ 124243) and lowest for large farms (₹ 19030). The overall returns to management from Ridge Gourd cultivation was ₹ 25984 per hectare. Benefit cost ratio of small farms was highest (1.57) followed by medium farms (1.18) and large farms (1.13). Overall, it indicated that inspite of varied level of investment by different size of farms, small farms were more efficient than medium and large farms.

Cost of production per quintal

The cost of production of Ridge Gourd across different land size categories is given in table T.57.4. On an average, ₹ 1433 was spent on producing a quintal of Ridge Gourd on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1501) followed by medium farms (₹ 1486) and small farms (₹ 1283) per quintal. This indicated that in case of Ridge Gourd production, small farms were more efficient and had economies of scale on their farms as compared to large and medium farms.

Table T.57.4 Cost of production of Ridgegourd on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1036	909	649	878
Cost A_2	1036	909	649	878
Cost B_1	1039	912	651	881
Cost B_2	1323	1205	988	1183
Cost C_1	1218	1193	947	1131
Cost C_2	1501	1486	1283	1433
Cost C_3	1651	1634	1412	1576

***

55. Sponge Gourd

Cost structure

The table given below shows the breakup of the cost incurred by different size groups in various operations of Sponge Gourd cultivation. On an average, ₹ 187805 was spent on Sponge Gourd per hectare. Cost of cultivation of small farm category was highest, ₹ 232109 followed by medium farms (₹ 189462) and large farms (₹ 156125). Among the different components of cost of cultivation, contribution of human labour was highest (45.1 per cent) followed by Mechanical Power (7.8 per cent). Small farms had spent ₹ 107883 on human labour, which was exponentially high compared to medium farms (₹ 85855) and large farms category (₹ 67901).

Table T.58.1 Item-wise break up of cost of cultivation/ha. of Sponge Gourd Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	48241	30.9	50948	26.9	68789	29.6	54585	29.1
Family	19660	12.6	34907	18.4	39094	16.8	30131	16.0
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	15333	9.8	10831	5.7	18602	8.0	14604	7.8
Seed	3426	2.2	2930	1.5	3438	1.5	3254	1.7
Manure	0	0.0	3721	2.0	3188	1.4	2148	1.1
Fertilizer	8798	5.6	11688	6.2	15206	6.6	11498	6.1
Irrigation Charges	1856	1.2	3871	2.0	6703	2.9	3837	2.0
Plant Protection Charges	6719	4.3	15484	8.2	15938	6.9	12226	6.5
Incidental charges	7468	4.8	9407	5.0	10344	4.5	8906	4.7
Repairs on Farm Implements	20	0.0	55	0.0	162	0.1	69	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	5512	3.5	6536	3.4	8542	3.7	6668	3.6
Depreciation	424	0.3	502	0.3	656	0.3	512	0.3
Land Revenue and Other Taxes	26	0.0	31	0.0	41	0.0	32	0.0
Rental Value of Land	37644	24.1	37366	19.7	39860	17.2	38127	20.3
Interest on Fixed Capital	999	0.6	1184	0.6	1548	0.7	1208	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**156125**	**100.0**	**189462**	**100.0**	**232109**	**100.0**	**187805**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Sponge Gourd cultivation for different size groups are given in table T.58.2. The total cost of cultivation (Cost C2) per hectare of Sponge Gourd amounted to an average of ₹ 187805 at State level. On an average, Cost A1 was ₹ 118339, which was highest on small farms (₹ 151608) and lowest on large farms (₹ 97823). Here, the table depicts huge investment by small farms in cultivation of Sponge Gourd per hectare compared to other farms categories.

Table T.58.2 Different cost concepts basis on different size holdings of Sponge Gourd (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	97823	116005	151608	118339
Cost A_2	97823	116005	151608	118339
Cost B_1	98821	117189	153155	119547
Cost B_2	136465	154555	193015	157674
Cost C_1	118481	152096	192249	149678
Cost C_2	156125	189462	232109	187805
Cost C_3	171737	208408	255320	206586

Income measures

A comparison of various income measures from Sponge Gourd cultivation are given in table T.58.3.

Table T.58.3 Returns from cultivation of Sponge Gourd on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	128199	108381	87799	110617
Farm Business Income	128199	108381	87799	110617
Family Labour Income	89556	69831	46391	71282
Net Income	69897	34924	7297	41151
Returns to Management	54284	15978	-15914	22370
Benefit Cost Ratio	1.45	1.18	1.03	1.22

Returns over variable cost varied between ₹ 87799 to ₹ 128199 as shown in the above table. The family labour income per hectare of Sponge Gourd cultivation varied from ₹ 46391 in small farms to ₹ 89556 in small farms. On an average, family labour income was worked out to be ₹ 71282 per hectare. The overall net income from Sponge Gourd cultivation was ₹ 41151 per hectare. The overall returns to management from Sponge Gourd cultivation was ₹ 22370 per hectare. Benefit cost ratio of large farms was highest (1.45) followed by medium farms (1.18) and small farms (1.03). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Sponge Gourd across different land size categories is given in table T.58.4. On an average, ₹ 1414 was spent on producing a quintal of Sponge Gourd on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1662) followed by medium farms (₹ 1489) and large farms (₹ 1172) per quintal. This indicated that in case of Sponge Gourd production, large farms had economies of scale on their farms as compared to small and medium farms.

Table T.58.4 Cost of production of Sponge Gourd on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	734	912	1085	891
Cost A_2	734	912	1085	891
Cost B_1	742	921	1096	900
Cost B_2	1025	1215	1382	1187
Cost C_1	890	1196	1376	1127
Cost C_2	1172	1489	1662	1414
Cost C_3	1289	1638	1828	1556

***

56. Peas

Cost structure

The table T.59.1 shows the breakup of the cost incurred by different size groups in various operations of Peas cultivation. On an average, ₹ 94429 was spent on Peas per hectare. Cost of cultivation of medium farm category was highest, ₹ 113591 followed by large farms (₹ 92300). Sample for this crop was not available in small farms during study. Among the different components of cost of cultivation, contribution of Seed was highest (37.9 per cent) followed by Mechanical Power (10.9 per cent) and Fertilizers (9.8 per cent). Medium farms had spent ₹ 5833 and ₹ 12500 on Manure and Fertilizers respectively, which was high compared to large farms category (₹ 1296 and ₹ 8889).

Table T.59.1 Item-wise break up of cost of cultivation/ha. of Peas Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	32862	35.6	42542	37.5	--	--	33830	35.8
Family	2014	2.2	1375	1.2	--	--	1950	2.1
Bullock Pair	0	0.0	0	0.0	--	--	0	0.0
Mechanical Power	10258	11.1	10792	9.5	--	--	10312	10.9
Seed	7074	7.7	7833	6.9	--	--	7150	7.6
Manure	1296	1.4	5833	5.1	--	--	1750	1.9
Fertilizer	8889	9.6	12500	11.0	--	--	9250	9.8
Irrigation Charges	0	0.0	0	0.0	--	--	0	0.0
Plant Protection Charges	4398	4.8	4167	3.7	--	--	4375	4.6
Incidental charges	1986	2.2	2823	2.5	--	--	2070	2.2
Repairs on Farm Implements	6	0.0	29	0.0	--	--	8	0.0
Insurance Premium	0	0.0	0	0.0	--	--	0	0.0
Rab Material	0	0.0	0	0.0	--	--	0	0.0
Interest on working Capital	4006	4.3	5191	4.6	--	--	4125	4.4
Depreciation	308	0.3	399	0.4	--	--	317	0.3
Land Revenue and Other Taxes	19	0.0	25	0.0	--	--	20	0.0
Rental Value of Land	18457	20.0	19142	16.9	--	--	18525	19.6
Interest on Fixed Capital	726	0.8	941	0.8	--	--	747	0.8
Amortization Cost	0	0.0	0	0.0	--	--	0	0.0
Total Cost	**92300**	**100.0**	**113591**	**100.0**	--	--	**94429**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Peas cultivation for different size groups are given in table T.59.2. The total cost of cultivation (Cost C2) per hectare of Peas amounted to an average of ₹ 94429 at State level. On an average, Cost A1 was ₹ 73206, which was highest on medium farms (₹ 92134) and lowest on large farms (₹ 71103). Here, the table clearly indicates high investment by medium farms compared to large farms in cultivation of Peas per hectare.

Table T.59.2 Different cost concepts basis on different size holdings of Peas (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	71103	92134	--	73206
Cost A_2	71103	92134	--	73206
Cost B_1	71829	93074	--	73954
Cost B_2	90286	112216	--	92479
Cost C_1	73843	94449	--	75904
Cost C_2	92300	113591	--	94429
Cost C_3	101530	124950	--	103872

Income measures

A comparison of various income measures from Peas cultivation are given in table T.59.3.

Table T.59.3 Returns from cultivation of Peas on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	39753	22866	--	38065
Farm Business Income	39753	22866	--	38065
Family Labour Income	20571	2784	--	18792
Net Income	18557	1409	--	16842
Returns to Management	9327	-9950	--	7399
Benefit Cost Ratio	1.20	1.01	--	1.18

Returns over variable cost varied between ₹ 22866 to ₹ 39753 as shown in the above table. The family labour income per hectare of Peas cultivation varied from ₹ 2784 in medium farms to ₹ 20571 in large farms. On an average, family labour income was worked out to be ₹ 18792 per hectare. The overall net income from Peas cultivation was ₹ 16842 per hectare, wherein net income of large farms was highest (₹ 18557) and lowest for small farms (₹ 1409). The overall returns to management from Peas cultivation was ₹ 7399 per hectare. Benefit cost ratio of large farms was highest (1.20) followed by medium farms (1.01). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium farms.

Cost of production per quintal

The cost of production of Peas across different land size categories is given in table T.59.4. On an average, ₹ 1735 was spent on producing a quintal of Peas on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 2034) followed by large farms (₹ 1701) per quintal. This indicated that in case of Peas production, large farms had economies of scale on their farms as compared to medium farms.

Table T.59.4 Cost of production of Peas on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1310	1650	--	1345
Cost A_2	1310	1650	--	1345
Cost B_1	1324	1667	--	1359
Cost B_2	1664	2010	--	1699
Cost C_1	1361	1692	--	1395
Cost C_2	1701	2034	--	1735
Cost C_3	1871	2238	--	1909

***

57. Green Chilli

Cost structure

The table T.60.1 shows the breakup of the cost incurred by different size groups in various operations of Green Chilli cultivation. On an average, ₹ 173318 was spent on Green Chilli per hectare. Cost of cultivation of medium farm category was highest, ₹ 180521 followed by large farms (₹ 170172) and small farms (₹ 164319). Among the different components of cost of cultivation, contribution of human labour was highest (39.5 per cent). Medium farms had spent ₹ 71041 on human labour, which was exponentially high compared to large farms (₹ 68126) and small farms category (₹ 61756).

Table T.60.1 Item-wise break up of cost of cultivation/ha. of Green Chilli Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	50539	29.7	47332	26.2	45390	27.6	48678	28.1
Family	17587	10.3	23709	13.1	16366	10.0	19733	11.4
Bullock Pair	1693	1.0	1348	0.7	1952	1.2	1596	0.9
Mechanical Power	11813	6.9	13518	7.5	6661	4.1	11798	6.8
Seed	9002	5.3	9041	5.0	7882	4.8	8874	5.1
Manure	5491	3.2	6811	3.8	6704	4.1	6142	3.5
Fertilizer	9189	5.4	11572	6.4	19339	11.8	11376	6.6
Irrigation Charges	3004	1.8	2969	1.6	3019	1.8	2993	1.7
Plant Protection Charges	9526	5.6	11682	6.5	9156	5.6	10290	5.9
Incidental charges	5252	3.1	3742	2.1	7136	4.3	4924	2.8
Repairs on Farm Implements	22	0.0	57	0.0	81	0.0	43	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	6332	3.7	6484	3.6	6439	3.9	6403	3.7
Depreciation	337	0.2	345	0.2	343	0.2	341	0.2
Land Revenue and Other Taxes	28	0.0	29	0.0	29	0.0	28	0.0
Rental Value of Land	39909	23.5	41422	22.9	33365	20.3	39645	22.9
Interest on Fixed Capital	449	0.3	460	0.3	457	0.3	454	0.3
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**170172**	**100.0**	**180521**	**100.0**	**164319**	**100.0**	**173318**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Green Chilli cultivation for different size groups are given in table T.60.2. The total cost of cultivation (Cost C2) per hectare of Green Chilli amounted to an average of ₹ 173318 at State level. On an average, Cost A1 was ₹ 113486, which was highest on medium farms (₹ 114930) and lowest on large farms (₹ 112227). Here, the table clearly indicated investment of medium farms to be higher in cultivation of Green Chilli per hectare compared to other farms categories.

Table T.60.2 Different cost concepts basis on different size holdings of Green Chilli (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	112227	114930	114131	113486
Cost A_2	112227	114930	114131	113486
Cost B_1	112677	115390	114588	113940
Cost B_2	152585	156812	147953	153585
Cost C_1	130263	139099	130954	133673
Cost C_2	170172	180521	164319	173318
Cost C_3	187189	198573	180751	190649

Income measures

A comparison of various income measures from Green Chilli cultivation are given in table T.60.3.

Table T.60.3 Returns from cultivation of Green Chilli on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	127393	133774	86231	124553
Farm Business Income	127393	133774	86231	124553
Family Labour Income	87035	91892	52409	84454
Net Income	69448	68183	36043	64721
Returns to Management	52431	50131	19612	47389
Benefit Cost Ratio	1.41	1.38	1.22	1.37

Returns over variable cost varied between ₹ 86231 to ₹ 133774 as shown in the above table. The family labour income per hectare of Green Chilli cultivation varied from ₹ 52409 in small farms to ₹ 91892 in medium farms. On an average, family labour income was worked out to be ₹ 84454 per hectare. The overall net income from Green Chilli cultivation was ₹ 64721 per hectare. The overall returns to management from Green Chilli cultivation was ₹ 47389 per hectare. Benefit cost ratio of large farms was highest (1.41) followed by medium farms (1.38) and small farms (1.22). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Green Chilli across different land size categories is given in table T.60.4. On an average, ₹ 907 was spent on producing a quintal of Green Chilli on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1010) followed by medium farms (₹ 929) and large farms (₹ 870) per quintal. This indicated that in case of Green Chilli production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.60.4 Cost of production of Green Chilli on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	573	591	701	594
Cost A_2	573	591	701	594
Cost B_1	576	594	704	597
Cost B_2	780	807	909	804
Cost C_1	666	716	805	700
Cost C_2	870	929	1010	907
Cost C_3	957	1022	1111	998

***

58. Coriander

Cost structure

The table T.61.1 shows the breakup of the cost incurred by different size groups in various operations of Coriander cultivation. On an average, ₹ 58203 was spent on Coriander per hectare. Cost of cultivation of small farm category was highest, ₹ 78681 followed by medium farms (₹ 64465) and large farms (₹ 54066). Among the different components of cost of cultivation, contribution of human labour was highest (40.4 per cent). Small farms had spent ₹ 29998 on human labour, which was high compared to medium farms (₹ 26953) and large farms category (₹ 21652).

Table T.61.1 Item-wise break up of cost of cultivation/ha. of Coriander Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	12686	23.5	14294	22.2	10998	14.0	12956	22.3
Family	8966	16.6	12659	19.6	19000	24.1	10522	18.1
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	3511	6.5	2496	3.9	4806	6.1	3356	5.8
Seed	3465	6.4	3626	5.6	5508	7.0	3641	6.3
Manure	2758	5.1	4354	6.8	3859	4.9	3212	5.5
Fertilizer	1216	2.2	1623	2.5	1962	2.5	1364	2.3
Irrigation Charges	2290	4.2	2651	4.1	3183	4.0	2436	4.2
Plant Protection Charges	1517	2.8	2371	3.7	3996	5.1	1887	3.2
Incidental charges	1323	2.4	2766	4.3	5572	7.1	1953	3.4
Repairs on Farm Implements	38	0.1	85	0.1	217	0.3	62	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1728	3.2	2056	3.2	2406	3.1	1852	3.2
Depreciation	133	0.2	158	0.2	185	0.2	142	0.2
Land Revenue and Other Taxes	8	0.0	10	0.0	12	0.0	9	0.0
Rental Value of Land	14113	26.1	14943	23.2	16540	21.0	14474	24.9
Interest on Fixed Capital	313	0.6	373	0.6	436	0.6	336	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**54066**	**100.0**	**64465**	**100.0**	**78681**	**100.0**	**58203**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Coriander cultivation for different size groups are given in table T.61.2. The total cost of cultivation (Cost C2) per hectare of Coriander amounted to an average of ₹ 58203 at State level. On an average, Cost A1 was ₹ 32871, which was highest on small farms (₹ 42705) and lowest on large farms (₹ 30674). Here, the table clearly indicated high investment by small farms in cultivation of Coriander per hectare compared to other farms.

Table T.61.2 Different cost concepts basis on different size holdings of Coriander (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	30674	36491	42705	32871
Cost A_2	30674	36491	42705	32871
Cost B_1	30987	36863	43141	33207
Cost B_2	45100	51806	59681	47681
Cost C_1	39953	49523	62141	43729
Cost C_2	54066	64465	78681	58203
Cost C_3	59473	70912	86549	64024

categories.

Income measures

A comparison of various income measures from Coriander cultivation are given in table T.61.3.

Table T.61.3 Returns from cultivation of Coriander on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	54056	53224	56606	54029
Farm Business Income	54056	53224	56606	54029
Family Labour Income	39630	37909	39630	39219
Net Income	30664	25249	20630	28697
Returns to Management	25257	18803	12762	22877
Benefit Cost Ratio	1.57	1.39	1.26	1.49

Returns over variable cost varied between ₹ 53224 to ₹ 56606 as shown in the above table. The family labour income per hectare of Coriander cultivation varied from ₹ 37909 in medium farms to ₹ 39630 in large and small farms. On an average, family labour income was worked out to be₹ 39219 per hectare. The overall net income from Coriander cultivation was ₹ 28697 per hectare. The overall returns to management from Coriander cultivation was ₹ 22877 per hectare. Benefit cost ratio of large farms was highest (1.57) followed by medium farms (1.39) and small farms (1.26). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Coriander across different land size categories is given in table T.61.4. On an average, ₹ 1337 was spent on producing a quintal of Coriander on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1615) followed by large farms (₹ 1345) and medium farms (₹ 1247) per quintal. This indicated that in case of Coriander production, medium farms were more efficient and had economies of scale on their farms as compared to small and large farms.

Table T.61.4 Cost of production of Coriander on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	763	706	877	755
Cost A_2	763	706	877	755
Cost B_1	771	713	886	763
Cost B_2	1122	1002	1225	1096
Cost C_1	994	958	1276	1005
Cost C_2	1345	1247	1615	1337
Cost C_3	1479	1372	1777	1471

***

59. Fenugreek

Cost structure

The table T.62.1 shows the breakup of the cost incurred by different size groups in various operations of Fenugreek cultivation. On an average, ₹ 61824 was spent on Fenugreek per hectare. Cost of cultivation of medium farm category was highest, ₹ 70322 followed by small farms (₹ 62724) and large farms (₹ 42668). Among the different components of cost of cultivation, contribution of human labour was highest (33.0 per cent) followed by Fertilizers (9.6 per cent) and Mechanical Power (9.6 per cent). Medium farms had spent ₹ 23745 on human labour, which was high compared to small farms (₹ 20734) and large farms category (₹ 13327).

Table T.62.1 Item-wise break up of cost of cultivation/ha. of Fenugreek Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	6827	16.0	13745	19.5	13609	21.7	12811	20.7
Family	6500	15.2	10000	14.2	7125	11.4	7632	12.3
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	3340	7.8	4130	5.9	6969	11.1	5951	9.6
Seed	2017	4.7	1690	2.4	2041	3.3	1967	3.2
Manure	0	0.0	1550	2.2	1044	1.7	1019	1.6
Fertilizer	4292	10.1	5955	8.5	6186	9.9	5909	9.6
Irrigation Charges	941	2.2	2096	3.0	2105	3.4	1961	3.2
Plant Protection Charges	0	0.0	0	0.0	0	0.0	0	0.0
Incidental charges	1083	2.5	7275	10.3	4032	6.4	4331	7.0
Repairs on Farm Implements	27	0.1	53	0.1	108	0.2	87	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1112	2.6	2190	3.1	2166	3.5	2042	3.3
Depreciation	85	0.2	168	0.2	166	0.3	157	0.3
Land Revenue and Other Taxes	5	0.0	11	0.0	10	0.0	10	0.0
Rental Value of Land	16238	38.1	21062	30.0	16771	26.7	17577	28.4
Interest on Fixed Capital	201	0.5	397	0.6	392	0.6	370	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**42668**	**100.0**	**70322**	**100.0**	**62724**	**100.0**	**61824**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Fenugreek cultivation for different size groups are given in table T.62.2. The total cost of cultivation (Cost C2) per hectare of Fenugreek amounted to an average of ₹ 61824 at State level. On an average, Cost A1 was ₹ 36246, which was highest on medium farms (₹ 38863) and lowest on large farms (₹ 19728). Here, the table clearly indicates high investment by medium farms in cultivation of Fenugreek per hectare compared to other farms categories.

Table T.62.2 Different cost concepts basis on different size holdings of Fenugreek (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	19728	38863	38436	36246
Cost A_2	19728	38863	38436	36246
Cost B_1	19930	39259	38828	36616
Cost B_2	36168	60322	55599	54192
Cost C_1	26430	49259	45953	44248
Cost C_2	42668	70322	62724	61824
Cost C_3	46934	77354	68996	68007

Income measures

A comparison of various income measures from Fenugreek cultivation are given in table T.62.3.

Table T.62.3 Returns from cultivation of Fenugreek on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	77730	87575	62253	69273
Farm Business Income	77730	87575	62253	69273
Family Labour Income	61291	66116	45089	51326
Net Income	54791	56116	37965	43694
Returns to Management	50524	49084	31692	37512
Benefit Cost Ratio	2.28	1.80	1.61	1.71

Returns over variable cost varied between ₹ 62253 to ₹ 87575 as shown in the above table. The family labour income per hectare of Fenugreek cultivation varied from ₹ 45089 in small farms to ₹ 66116 in medium farms. On an average, family labour income was worked out to be ₹ 51326 per hectare. The overall net income from Fenugreek cultivation was ₹ 43694 per hectare, wherein net income of medium farms was highest (₹ 56116) and lowest for small farms (₹ 37965). The overall returns to management from Fenugreek cultivation was ₹ 37512 per hectare. Benefit cost ratio of large farms was highest (2.28) followed by medium farms (1.80) and small farms (1.61). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Fenugreek across different land size categories is given in table T.62.4. On an average, ₹ 946 was spent on producing a quintal of Fenugreek on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 1023) followed by small farms (₹ 962) and large farms (₹ 706) per quintal. This indicated that in case of Fenugreek production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.62.4 Cost of production of Fenugreek on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	327	565	590	555
Cost A_2	327	565	590	555
Cost B_1	330	571	596	561
Cost B_2	599	877	853	830
Cost C_1	437	717	705	677
Cost C_2	706	1023	962	946
Cost C_3	777	1125	1059	1041

***

60. Leafy Vegetables (Spinach)

Cost structure

The table T.63.1 shows the breakup of the cost incurred by different size groups in various operations of Leafy Vegetables (Spinach) cultivation. On an average, ₹ 70188 was spent on Leafy Vegetables (Spinach) per hectare. Cost of cultivation of small farm category was highest, ₹ 81156 followed by medium farms (₹ 70503) and large farms (₹ 63794). Among the different components of cost of cultivation, contribution of human labour was highest (42.1 per cent) followed by Seed (9.7 per cent). Small farms had spent ₹ 39244 on human labour, which was high compared to medium farms (₹ 30187) and large farms category (₹ 23389).

Table T.63.1 Item-wise break up of cost of cultivation/ha. of Leafy Veg. (Spinach) Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	10412	16.3	15152	21.5	14188	17.5	13304	19.0
Family	12977	20.3	15035	21.3	25056	30.9	16231	23.1
Bullock Pair	303	0.5	116	0.2	556	0.7	266	0.4
Mechanical Power	2838	4.4	2996	4.2	4428	5.5	3215	4.6
Seed	7265	11.4	7333	10.4	4558	5.6	6778	9.7
Manure	2227	3.5	3128	4.4	0	0.0	2213	3.2
Fertilizer	2131	3.3	4328	6.1	7789	9.6	4219	6.0
Irrigation Charges	1850	2.9	1931	2.7	2086	2.6	1933	2.8
Plant Protection Charges	3077	4.8	3961	5.6	4440	5.5	3742	5.3
Incidental charges	2667	4.2	2686	3.8	4833	6.0	3090	4.4
Repairs on Farm Implements	49	0.1	75	0.1	123	0.2	75	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1969	3.1	2502	3.5	2580	3.2	2330	3.3
Depreciation	151	0.2	192	0.3	198	0.2	179	0.3
Land Revenue and Other Taxes	9	0.0	12	0.0	12	0.0	11	0.0
Rental Value of Land	15511	24.3	10602	15.0	9839	12.1	12179	17.4
Interest on Fixed Capital	357	0.6	453	0.6	467	0.6	422	0.6
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**63794**	**100.0**	**70503**	**100.0**	**81156**	**100.0**	**70188**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Leafy Vegetables (Spinach) cultivation for different size groups are given in table T.63.2.The total cost of cultivation (Cost C2) per hectare of Leafy Vegetables (Spinach) amounted to an average of ₹ 70188 at State level. On an average, Cost A1 was ₹ 41355, which was highest on small farms (₹ 45794) and lowest on large farms (₹ 34949). Here, the table depicted high investment by small farms in cultivation of Leafy Vegetables (Spinach) per hectare compared to other farms categories.

Table T.63.2 Different cost concepts basis on different size holdings of Leafy Veg. (Spinach) (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	34949	44412	45794	41355
Cost A_2	34949	44412	45794	41355
Cost B_1	35306	44865	46261	41777
Cost B_2	50817	55468	56101	53956
Cost C_1	48283	59900	71317	58008
Cost C_2	63794	70503	81156	70188
Cost C_3	70174	77553	89272	77206

Income measures

A comparison of various income measures from Leafy Vegetables (Spinach) cultivation are given in table T.63.3.

Table T.63.3 Returns from cultivation of Leafy Veg. (Spinach) on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	58172	19274	13317	31789
Farm Business Income	58172	19274	13317	31789
Family Labour Income	42304	8218	3010	19187
Net Income	29327	-6817	-22045	2956
Returns to Management	22948	-13867	-30161	-4063
Benefit Cost Ratio	1.46	0.90	0.73	1.04

Returns over variable cost varied between ₹ 13317 to ₹ 58172 as shown in the above table. The family labour income per hectare of Leafy Vegetables (Spinach) cultivation varied from ₹ 3010 in small farms to ₹ 42304 in large farms. On an average, family labour income was worked out to be ₹ 19187 per hectare. The overall net income from Leafy Vegetables (Spinach) cultivation was ₹ 2956 per hectare. The overall returns to management from Leafy Vegetables (Spinach) cultivation turned out to be unprofitable. Benefit cost ratio of large farms was highest (1.46) followed by medium farms (0.90) and small farms (0.73). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Leafy Vegetables (Spinach) across different land size categories is given in table T.63.4. On an average, ₹ 1786 was spent on producing a quintal of Leafy Vegetables (Spinach) on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 2620) followed by medium farms (₹ 2100) and large farms (₹ 1244) per quintal. This indicated that in case of Leafy Vegetables (Spinach) production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.63.4 Cost of production of Leafy Veg. (Spinach) on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	681	1323	1479	1052
Cost A_2	681	1323	1479	1052
Cost B_1	688	1336	1494	1063
Cost B_2	991	1652	1811	1373
Cost C_1	941	1784	2303	1476
Cost C_2	1244	2100	2620	1786
Cost C_3	1368	2310	2882	1965

***

61. Other Vegetables (Clusterbean)

Cost structure

The table T.64.1 shows the breakup of the cost incurred by different size groups in various operations of Other Vegetables (Clusterbean) cultivation. On an average, ₹ 71954 was spent on Other Vegetables (Clusterbean) per hectare. Cost of cultivation of small farm category was highest, ₹ 79505 followed by medium farms (₹ 73094) and large farms (₹ 66984). Among the different components of cost of cultivation, contribution of human labour was highest (39.7 per cent) followed by Fertilizers (8.7 per cent). Small farms had spent ₹ 31513 and ₹ 8750 on human labour and Manure respectively, which was exponentially high compared to medium farms (₹ 29194 and ₹ 2934) and large farms category (₹ 26453 and ₹ 1850).

Table T.64.1 Item-wise break up of cost of cultivation/ha. of Other Veg. (Clusterbean) Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	10205	15.2	8337	11.4	3350	4.2	8125	11.3
Family	16248	24.3	20857	28.5	28163	35.4	20454	28.4
Bullock Pair	196	0.3	131	0.2	0	0.0	132	0.2
Mechanical Power	5185	7.7	4275	5.8	5150	6.5	4783	6.6
Seed	2219	3.3	3504	4.8	2642	3.3	2855	4.0
Manure	1850	2.8	2934	4.0	8750	11.0	3598	5.0
Fertilizer	6464	9.6	6626	9.1	4963	6.2	6257	8.7
Irrigation Charges	1416	2.1	1463	2.0	3096	3.9	1747	2.4
Plant Protection Charges	3455	5.2	4182	5.7	3354	4.2	3752	5.2
Incidental charges	4679	7.0	4849	6.6	4267	5.4	4677	6.5
Repairs on Farm Implements	16	0.0	56	0.1	54	0.1	41	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	2141	3.2	2182	3.0	2138	2.7	2158	3.0
Depreciation	165	0.2	168	0.2	164	0.2	166	0.2
Land Revenue and Other Taxes	10	0.0	10	0.0	10	0.0	10	0.0
Rental Value of Land	12348	18.4	13124	18.0	13016	16.4	12808	17.8
Interest on Fixed Capital	388	0.6	395	0.5	387	0.5	391	0.5
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**66984**	**100.0**	**73094**	**100.0**	**79505**	**100.0**	**71954**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Other Vegetables (Clusterbean) cultivation for different size groups are given in table T.64.2.The total cost of cultivation (Cost C2) per hectare of Other Vegetables (Clusterbean) amounted to an average of ₹ 71954 at State level. On an average, Cost A1 was ₹ 38301, which was highest on medium farms (₹ 38719) and lowest on small farms (₹ 37939). Here, the table depicts slightly high investment by medium farms in cultivation of Other Vegetables (Clusterbean) per hectare compared to other farms categories.

Table T.64.2 Different cost concepts basis on different size holdings of Other Veg. (Clusterbean) (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	38000	38719	37939	38301
Cost A_2	38000	38719	37939	38301
Cost B_1	38388	39114	38326	38692
Cost B_2	50736	52238	51342	51500
Cost C_1	54636	59971	66490	59146
Cost C_2	66984	73094	79505	71954
Cost C_3	73682	80404	87456	79149

Income measures

A comparison of various income measures from Other Vegetables (Clusterbean) cultivation are given in table T.64.3.

Table T.64.3 Returns from cultivation of Other Veg. (Clusterbean) on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	36149	40086	40217	38611
Farm Business Income	36149	40086	40217	38611
Family Labour Income	23413	26567	26814	25412
Net Income	7166	5711	-1350	4958
Returns to Management	467	-1599	-9300	-2237
Benefit Cost Ratio	1.11	1.08	0.98	1.07

Returns over variable cost varied between ₹ 36149 to ₹ 40217 as shown in the above table. The family labour income per hectare of Other Vegetables (Clusterbean) cultivation varied from ₹ 23413 in large farms to ₹ 26814 in small farms. On an average, family labour income was worked out to be ₹ 25412 per hectare. The overall net income from Other Vegetables (Clusterbean) cultivation was ₹ 4958 per hectare. The overall returns to management from Other Vegetables (Clusterbean) cultivation turned out to be unprofitable. Benefit cost ratio of large farms was highest (1.11) followed by medium farms (1.08) and small farms (0.98). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Other Vegetables (Clusterbean) across different land size categories is given in table T.64.4. On an average, ₹ 1974 was spent on producing a quintal of Other Vegetables (Clusterbean) on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 2062) followed by medium farms (₹ 2027) and large farms (₹ 1866) per quintal. This indicated that in case of Other Vegetables (Clusterbean) production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.64.4 Cost of production of Other Veg. (Clusterbean) on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1059	1074	984	1051
Cost A_2	1059	1074	984	1051
Cost B_1	1070	1085	994	1061
Cost B_2	1414	1448	1332	1413
Cost C_1	1522	1663	1724	1622
Cost C_2	1866	2027	2062	1974
Cost C_3	2053	2229	2268	2171

***

62. Cucumber

Cost structure

The table T.65.1 shows the breakup of the cost incurred by different size groups in various operations of Cucumber cultivation. On an average, ₹ 106939 was spent on Cucumber per hectare. Cost of cultivation of small farm category was highest, ₹ 137489 followed by medium farms (₹ 100957) and large farms (₹ 90022). Among the different components of cost of cultivation, contribution of human labour was highest (40.1 per cent) followed by Fertilizers (7.6 per cent). Small farms had spent ₹ 57505 and ₹ 9843 on human labour and Fertilizers respectively, which was exponentially high compared to medium farms (₹ 37651 and ₹ 8023) and large farms category (₹ 38210 and ₹ 6868).

Table T.65.1 Item-wise break up of cost of cultivation/ha. of Cucumber Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	21617	24.0	21776	21.6	25789	18.8	22750	21.3
Family	16593	18.4	15875	15.7	31716	23.1	20130	18.8
Bullock Pair	178	0.2	281	0.3	112	0.1	207	0.2
Mechanical Power	3950	4.4	4240	4.2	4837	3.5	4304	4.0
Seed	2584	2.9	2961	2.9	3848	2.8	3072	2.9
Manure	3503	3.9	3736	3.7	3169	2.3	3520	3.3
Fertilizer	6868	7.6	8023	7.9	9843	7.2	8135	7.6
Irrigation Charges	1422	1.6	2296	2.3	4938	3.6	2703	2.5
Plant Protection Charges	5820	6.5	4619	4.6	5411	3.9	5186	4.8
Incidental charges	4462	5.0	4436	4.4	6078	4.4	4862	4.5
Repairs on Farm Implements	15	0.0	21	0.0	60	0.0	29	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	3025	3.4	3143	3.1	3845	2.8	3286	3.1
Depreciation	121	0.1	126	0.1	154	0.1	132	0.1
Land Revenue and Other Taxes	15	0.0	16	0.0	19	0.0	16	0.0
Rental Value of Land	19666	21.8	29219	28.9	37438	27.2	28407	26.6
Interest on Fixed Capital	182	0.2	189	0.2	231	0.2	198	0.2
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**90022**	**100.0**	**100957**	**100.0**	**137489**	**100.0**	**106939**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Cucumber cultivation for different size groups are given in table T.65.2. The total cost of cultivation (Cost C2) per hectare of Cucumber amounted to an average of ₹ 106939 at State level. On an average, Cost A1 was ₹ 58204, which was highest on small farms (₹ 68103) and lowest on large farms (₹ 53581). Here, the table indicated least investment by large farms in cultivation of Cucumber per hectare compared to other farms categories.

Table T.65.2 Different cost concepts basis on different size holdings of Cucumber (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	53581	55674	68103	58204
Cost A_2	53581	55674	68103	58204
Cost B_1	53763	55863	68335	58402
Cost B_2	73429	85082	105773	86809
Cost C_1	70356	71738	100051	78533
Cost C_2	90022	100957	137489	106939
Cost C_3	99025	111053	151238	117633

Income measures

A comparison of various income measures from Cucumber cultivation are given in table T.65.3.

Table T.65.3 Returns from cultivation of Cucumber on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	64506	119732	156639	112334
Farm Business Income	64506	119732	156639	112334
Family Labour Income	44658	90324	118970	83730
Net Income	28065	74449	87254	63600
Returns to Management	19063	64353	73505	52906
Benefit Cost Ratio	1.31	1.74	1.63	1.59

Returns over variable cost varied between ₹ 64506 to ₹ 156639 as shown in the above table. The family labour income per hectare of Cucumber cultivation varied from ₹ 44658 in large farms to ₹ 118970 in small farms. On an average, family labour income was worked out to be ₹ 83730 per hectare. The overall net income from Cucumber cultivation was ₹ 63600 per hectare, wherein net income of small farms was highest (₹ 87254) and lowest for large farms (₹ 28065). The overall returns to management from Cucumber cultivation was ₹ 52906 per hectare. Benefit cost ratio of medium farms was highest (1.74) followed by small farms (1.63) and large farms (1.31). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than large and small farms.

Cost of production per quintal

The cost of production of Cucumber across different land size categories is given in table T.65.4. On an average, ₹ 853 was spent on producing a quintal of Cucumber on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on large farms (₹ 1218) followed by small farms (₹ 763) and medium farms (₹ 788) per quintal. This indicated that in case of Cucumber production, medium farms were more efficient and had economies of scale on their farms as compared to medium and large farms.

Table T.65.4 Cost of production of Cucumber on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	725	421	390	464
Cost A_2	725	421	390	464
Cost B_1	728	422	391	466
Cost B_2	994	643	606	693
Cost C_1	952	542	573	627
Cost C_2	1218	763	788	853
Cost C_3	1340	839	866	939

***

63. Beetroot

Cost structure

The table T.66.1 shows the breakup of the cost incurred by different size groups in various operations of Beetroot cultivation. On an average, ₹ 138282 was spent on Beetroot per hectare. Cost of cultivation of large farm category was highest, ₹ 171479 followed by medium farms (₹ 133539). Sample for this crop was not available in small farms during study. Among the different components of cost of cultivation, contribution of human labour was highest (21.7 per cent) followed by Seed (10.7 per cent) and Mechanical Power (10.6 per cent). Large farms had spent ₹ 18750 and ₹ 16250 on Seed and Fertilizers respectively, which was high compared to medium farms category (₹ 14226 and ₹ 10637).

Table T.66.1 Item-wise break up of cost of cultivation/ha. of Beetroot Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	19021	11.1	16099	12.1	--	--	16464	11.9
Family	14250	8.3	13464	10.1	--	--	13563	9.8
Bullock Pair	0	0.0	0	0.0	--	--	0	0.0
Mechanical Power	15813	9.2	14508	10.9	--	--	14671	10.6
Seed	18750	10.9	14226	10.7	--	--	14792	10.7
Manure	5000	2.9	714	0.5	--	--	1250	0.9
Fertilizer	16250	9.5	10637	8.0	--	--	11339	8.2
Irrigation Charges	3014	1.8	3542	2.7	--	--	3476	2.5
Plant Protection Charges	3500	2.0	2810	2.1	--	--	2896	2.1
Incidental charges	11717	6.8	8839	6.6	--	--	9199	6.7
Repairs on Farm Implements	66	0.0	154	0.1	--	--	143	0.1
Insurance Premium	0	0.0	0	0.0	--	--	0	0.0
Rab Material	0	0.0	0	0.0	--	--	0	0.0
Interest on working Capital	5588	3.3	4292	3.2	--	--	4454	3.2
Depreciation	429	0.3	330	0.2	--	--	342	0.2
Land Revenue and Other Taxes	27	0.0	21	0.0	--	--	21	0.0
Rental Value of Land	57043	33.3	43126	32.3	--	--	44865	32.4
Interest on Fixed Capital	1012	0.6	778	0.6	--	--	807	0.6
Amortization Cost	0	0.0	0	0.0	--	--	0	0.0
Total Cost	**171479**	**100.0**	**133539**	**100.0**	**--**	**--**	**138282**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Beetroot cultivation for different size groups are given in table T.66.2. The total cost of cultivation (Cost C2) per hectare of Beetroot amounted to an average of ₹ 138282 at State level. On an average, Cost A1 was ₹ 79047, which was highest on large farms (₹ 99174) and lowest on medium farms (₹ 76172). Here, the table clearly indicated cost incurred by large farms to be higher than medium farms in cultivation of Beetroot per hectare compared to other farms categories.

Table T.66.2 Different cost concepts basis on different size holdings of Beetroot (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	99174	76172	--	79047
Cost A_2	99174	76172	--	79047
Cost B_1	100186	76949	--	79854
Cost B_2	157229	120075	--	124719
Cost C_1	114436	90413	--	93416
Cost C_2	171479	133539	--	138282
Cost C_3	188627	146893	--	152110

Income measures

A comparison of various income measures from Beetroot cultivation are given in table T.66.3.

Table T.66.3 Returns from cultivation of Beetroot on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	243243	182706	--	190273
Farm Business Income	243243	182706	--	190273
Family Labour Income	185188	138803	--	144601
Net Income	170938	125339	--	131039
Returns to Management	153790	111985	--	117210
Benefit Cost Ratio	2.00	1.94	--	1.95

Returns over variable cost varied between ₹ 182706 to ₹ 243243 as shown in the above table. The family labour income per hectare of Beetroot cultivation varied from ₹ 138803 in medium farms to ₹ 185188 in large farms. On an average, family labour income was worked out to be ₹ 144601 per hectare. The overall net income from Beetroot cultivation was ₹ 131039 per hectare. The overall returns to management from Beetroot cultivation was ₹ 117210 per hectare. Benefit cost ratio of large farms was highest (2.00) followed by medium farms (1.94). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium farms.

Cost of production per quintal

The cost of production of Beetroot across different land size categories is given in table T.66.4. On an average, ₹ 616 was spent on producing a quintal of Beetroot on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on medium farms (₹ 620) followed by large farms (₹ 596) per quintal. This indicated that in case of Beetroot production, large farms were more efficient and had economies of scale on their farms as compared to medium farms.

Table T.66.4 Cost of production of Beetroot on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	345	354	--	352
Cost A_2	345	354	--	352
Cost B_1	348	357	--	356
Cost B_2	547	557	--	556
Cost C_1	398	420	--	416
Cost C_2	596	620	--	616
Cost C_3	656	682	--	678

***

64. Carrot

Cost structure

The table T.67.1 shows the breakup of the cost incurred by different size groups in various operations of Carrot cultivation. On an average, ₹ 195338 was spent on Carrot per hectare. Cost of cultivation of small farm category was highest, ₹ 225972 followed by large farms (₹ 207225) and medium farms (₹ 185969). Among the different components of cost of cultivation, contribution of human labour was highest (24.3 per cent). Small farms had spent ₹ 51139 and ₹ 25021 on human labour and Manure & Fertilizers respectively, which was considerably high compared to medium farms (₹ 46216 and ₹ 13534) and large farms category (₹ 49396 and ₹ 13350).

Table T.67.1 Item-wise break up of cost of cultivation/ha. of Carrot Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	36229	17.5	33052	17.8	36068	16.0	33975	17.4
Family	13167	6.4	13164	7.1	15071	6.7	13471	6.9
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	4521	2.2	4424	2.4	4575	2.0	4461	2.3
Seed	5500	2.7	5623	3.0	5500	2.4	5586	2.9
Manure	9583	4.6	8328	4.5	15786	7.0	9701	5.0
Fertilizer	3767	1.8	5207	2.8	9236	4.1	5656	2.9
Irrigation Charges	813	0.4	2015	1.1	2313	1.0	1897	1.0
Plant Protection Charges	0	0.0	0	0.0	0	0.0	0	0.0
Incidental charges	8917	4.3	7233	3.9	9393	4.2	7813	4.0
Repairs on Farm Implements	47	0.0	163	0.1	323	0.1	173	0.1
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	4163	2.0	3963	2.1	4992	2.2	4156	2.1
Depreciation	320	0.2	305	0.2	384	0.2	319	0.2
Land Revenue and Other Taxes	20	0.0	19	0.0	24	0.0	20	0.0
Rental Value of Land	119424	57.6	101757	54.7	121405	53.7	107356	55.0
Interest on Fixed Capital	754	0.4	718	0.4	904	0.4	753	0.4
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**207225**	**100.0**	**185969**	**100.0**	**225972**	**100.0**	**195338**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Carrot cultivation for different size groups are given in table T.67.2. The total cost of cultivation (Cost C2) per hectare of Carrot amounted to an average of ₹ 195338 at State level. On an average, Cost A1 was ₹ 73758, which was highest on small farms (₹ 88592) and lowest on medium farms (₹ 70330). Here, the table clearly indicated high investment by small farms in cultivation of Carrot per hectare compared to other farms categories.

Table T.67.2 Different cost concepts basis on different size holdings of Carrot (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	73879	70330	88592	73758
Cost A_2	73879	70330	88592	73758
Cost B_1	74634	71048	89496	74511
Cost B_2	194058	172805	210901	181867
Cost C_1	87800	84212	104568	87983
Cost C_2	207225	185969	225972	195338
Cost C_3	227947	204566	248570	214872

Income measures

A comparison of various income measures from Carrot cultivation are given in table T.67.3.

Table T.67.3 Returns from cultivation of Carrot on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	642787	540326	639979	570494
Farm Business Income	642787	540326	639979	570494
Family Labour Income	522609	437851	517670	462386
Net Income	509442	424687	502599	448915
Returns to Management	488719	406090	480002	429381
Benefit Cost Ratio	3.46	3.28	3.22	3.30

Returns over variable cost varied between ₹ 540326 to ₹ 642787 as shown in the above table. The family labour income per hectare of Carrot cultivation varied from ₹ 437851 in medium farms to ₹ 522609 in large farms. On an average, family labour income was worked out to be ₹ 462386 per hectare. The overall net income from Carrot cultivation was ₹ 448915 per hectare, wherein net income of large farms was highest (₹ 509442) and lowest for medium farms (₹ 424687). The overall returns to management from Carrot cultivation was ₹ 429381 per hectare. Benefit cost ratio of large farms was highest (3.46) followed by medium farms (3.28) and small farms (3.22). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Carrot across different land size categories is given in table T.67.4. On an average, ₹ 667 was spent on producing a quintal of Carrot on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 748) followed by large farms (₹ 691) and medium farms (₹ 643) per quintal. This indicated that in case of Carrot production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.67.4 Cost of production of Carrot on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	246	243	293	252
Cost A_2	246	243	293	252
Cost B_1	249	246	296	254
Cost B_2	647	597	698	621
Cost C_1	293	291	346	300
Cost C_2	691	643	748	667
Cost C_3	760	707	823	734

***

65. Radish

Cost structure

The table T.68.1 shows the breakup of the cost incurred by different size groups in various operations of Radish cultivation. On an average, ₹ 145065 was spent on Radish per hectare. Cost of cultivation of small farm category was highest, ₹ 150322 followed by large farms (₹ 144927) and medium farms (₹ 141993). Among the different components of cost of cultivation, contribution of human labour was highest (43.7 per cent) followed by Fertilizers (7.8 per cent). Small farms had spent ₹ 4715 on Irrigation Charges, which was high compared to medium farms (₹ 2972) and large farms category (₹ 2433).

Table T.68.1 Item-wise break up of cost of cultivation/ha. of Radish Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	40697	28.1	33559	23.6	29139	19.4	32761	22.6
Family	26333	18.2	26771	18.9	38198	25.4	30559	21.1
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	5192	3.6	7198	5.1	7107	4.7	6975	4.8
Seed	1600	1.1	1710	1.2	1638	1.1	1676	1.2
Manure	0	0.0	0	0.0	0	0.0	0	0.0
Fertilizer	10578	7.3	11117	7.8	11671	7.8	11251	7.8
Irrigation Charges	2433	1.7	2972	2.1	4715	3.1	3505	2.4
Plant Protection Charges	1022	0.7	1033	0.7	993	0.7	1018	0.7
Incidental charges	4961	3.4	4097	2.9	4284	2.8	4243	2.9
Repairs on Farm Implements	21	0.0	37	0.0	88	0.1	53	0.0
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	3990	2.8	3703	2.6	3578	2.4	3689	2.5
Depreciation	307	0.2	285	0.2	275	0.2	283	0.2
Land Revenue and Other Taxes	19	0.0	18	0.0	17	0.0	18	0.0
Rental Value of Land	47051	32.5	48822	34.4	47970	31.9	48367	33.3
Interest on Fixed Capital	723	0.5	671	0.5	648	0.4	668	0.5
Amortization Cost	0	0.0	0	0.0	0	0.0	0	0.0
Total Cost	**144927**	**100.0**	**141993**	**100.0**	**150322**	**100.0**	**145065**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Radish cultivation for different size groups are given in table T.68.2. The table shows that total cost of cultivation (Cost C2) per hectare of gram amounted to ₹ 144927, ₹ 141993 and₹ 150322 on large, medium and small farms respectively with an average of ₹ 145065 at State level. Apparently, Cost A1 to Cost B2 are highest for large farms whereas Cost C1 to C3 are highest for small farms compared to other farms categories.

Table T.68.2 Different cost concepts basis on different size holdings of Radish (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	70820	65729	63506	65472
Cost A_2	70820	65729	63506	65472
Cost B_1	71543	66400	64154	66140
Cost B_2	118593	115222	112124	114506
Cost C_1	97876	93171	102353	96698
Cost C_2	144927	141993	150322	145065
Cost C_3	159419	156192	165355	159571

Income measures

A comparison of various income measures from Radish cultivation are given in table T.68.3.

Table T.68.3 Returns from cultivation of Radish on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	211600	227307	224414	224834
Farm Business Income	211600	227307	224414	224834
Family Labour Income	163827	177815	175797	175799
Net Income	137493	151044	137598	145241
Returns to Management	123001	136844	122566	130734
Benefit Cost Ratio	1.95	2.06	1.92	2.00

Returns over variable cost varied between ₹ 211600 to ₹ 227307 as shown in the above table. The family labour income per hectare of Radish cultivation varied from ₹ 163827 in large farms to ₹ 177815 in medium farms. On an average, family labour income was worked out to be ₹ 175799 per hectare. The overall net income from Radish cultivation was ₹ 145241 per hectare, wherein net income of medium farms was highest (₹ 151044) and lowest for large farms (₹ 137493). The overall returns to management from Radish cultivation was ₹ 130734 per hectare. Benefit cost ratio of medium farms was highest (2.06) followed by large farms (1.95) and small farms (1.92). Overall, it indicated that inspite of varied level of investment by different size of farms, medium farms were more efficient than large and small farms.

Cost of production per quintal

The cost of production of Radish across different land size categories is given in table T.68.4. On an average, ₹ 694 was spent on producing a quintal of Radish on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 720) followed by large farms (₹ 696) and medium farms (₹ 679) per quintal. This indicated that in case of Radish production, medium farms were more efficient and had economies of scale on their farms as compared to small and large farms.

Table T.68.4 Cost of production of Radish on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	340	314	304	313
Cost A_2	340	314	304	313
Cost B_1	343	317	307	317
Cost B_2	569	551	537	548
Cost C_1	470	445	490	463
Cost C_2	696	679	720	694
Cost C_3	765	747	792	764

***

66. Arecanut

Cost structure

The table T.39.1 shows the breakup of the cost incurred by different size groups in various operations of Arecanut cultivation. On an average, ₹ 57811 was spent on Arecanut per hectare. Cost of cultivation of small farm category was highest, ₹ 74362 followed by large farms (₹ 55635) and medium farms (₹ 52464). Among the different components of cost of cultivation, contribution of human labour was highest (37.2 per cent) followed by Manure (12.8 per cent). Small farms had spent ₹ 28145 and ₹ 12714 on human labour and Manure & Fertilizers respectively, which was substantially high compared to medium farms (₹ 21983 and ₹ 7667) and large farms category (₹ 18027 and ₹ 8427).

Table T.39.1 Item-wise break up of cost of cultivation/ha. of Arecanut Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	5613	10.1	11456	21.8	13876	18.7	9540	16.5
Family	12415	22.3	10527	20.1	14269	19.2	11985	20.7
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	1799	3.2	2592	4.9	4688	6.3	2660	4.6
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	7293	13.1	6813	13.0	8810	11.8	7378	12.8
Fertilizer	1134	2.0	854	1.6	3904	5.3	1534	2.7
Irrigation Charges	2243	4.0	1795	3.4	1543	2.1	1930	3.3
Plant Protection Charges	0	0.0	0	0.0	0	0.0	0	0.0
Incidental charges	3756	6.8	4895	9.3	3577	4.8	4189	7.2
Repairs on Farm Implements	35	0.1	73	0.1	640	0.9	162	0.3
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1312	2.4	1709	3.3	2222	3.0	1644	2.8
Depreciation	114	0.2	149	0.3	194	0.3	143	0.2
Land Revenue and Other Taxes	11	0.0	15	0.0	19	0.0	14	0.0
Rental Value of Land	18554	33.3	10296	19.6	17979	24.2	15064	26.1
Interest on Fixed Capital	114	0.2	149	0.3	194	0.3	143	0.2
Amortization Cost	1242	2.2	1140	2.2	2447	3.3	1424	2.5
Total Cost	**55635**	**100.0**	**52464**	**100.0**	**74362**	**100.0**	**57811**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Arecanut cultivation for different size groups are given in table T.39.2. The total cost of cultivation (Cost C2) per hectare of Arecanut amounted to an average of ₹ 57811 at State level. On an average, Cost A1 was ₹ 29194, which was highest on small farms (₹ 39474) and lowest on large farms (₹ 23310). Here, the table depicts investment by small farms to be high compared to other farms categories in cultivation of Arecanut per hectare.

Table T.39.2 Different cost concepts basis on different size holdings of Arecanut (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	23310	30351	39474	29194
Cost A_2	23310	30351	39474	29194
Cost B_1	23425	30500	39667	29338
Cost B_2	43220	41937	60093	45826
Cost C_1	35839	41027	53936	41323
Cost C_2	55635	52464	74362	57811
Cost C_3	61199	57710	81798	63592

Income measures

A comparison of various income measures from Arecanut cultivation are given in table T.39.3.

Table T.39.3 Returns from cultivation of Arecanut on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	88080	31517	68517	61277
Farm Business Income	88080	31517	68517	61277
Family Labour Income	68170	19931	47897	44645
Net Income	55755	9404	33629	32660
Returns to Management	50192	4157	26193	26879
Benefit Cost Ratio	2.00	1.18	1.45	1.56

Returns over variable cost varied between ₹ 31517 to ₹ 88080 as shown in the above table. The family labour income per hectare of Arecanut cultivation varied from ₹ 19931 in medium farms to ₹ 68170 in large farms. On an average, family labour income was worked out to be ₹ 44645 per hectare. The overall net income from Arecanut cultivation was ₹ 32660 per hectare. The overall returns to management from Arecanut cultivation was ₹ 26879 per hectare. Benefit cost ratio of large farms was highest (2.00) followed by small farms (1.45) and medium farms (1.18). Overall, it indicated that inspite of varied level of investment by different size of farms, large farms were more efficient than medium and small farms.

Cost of production per quintal

The cost of production of Arecanut across different land size categories is given in table T.39.4. On an average, ₹ 943 was spent on producing a quintal of Arecanut on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 1499) followed by medium farms (₹ 1320) and large farms (₹ 629) per quintal. This indicated that in case of Arecanut production, large farms were more efficient and had economies of scale on their farms as compared to small and medium farms.

Table T.39.4 Cost of production of Arecanut on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	263	763	796	476
Cost A_2	263	763	796	476
Cost B_1	265	767	800	479
Cost B_2	489	1055	1212	748
Cost C_1	405	1032	1087	674
Cost C_2	629	1320	1499	943
Cost C_3	692	1452	1649	1037

***

67. Cashewnut

Cost structure

The table T.40.1 shows the breakup of the cost incurred by different size groups in various operations of Cashewnut cultivation. On an average, ₹ 110919 was spent on Cashewnut per hectare. Cost of cultivation of small farm category was highest, ₹ 195606 followed by medium farms (₹ 118978) and large farms (₹ 90297). Among the different components of cost of cultivation, contribution of human labour was highest (18.1 per cent) followed by Manure (9.8 per cent). Small farms had spent ₹ 46098 and ₹ 31017 on human labour and Mechanical Power respectively, which was exponentially high compared to medium farms (₹ 17691 and ₹ 11595) and large farms category (₹ 15563 and ₹ 3966).

Table T.40.1 Item-wise break up of cost of cultivation/ha. of Cashewnut Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	7439	8.2	10746	9.0	28747	14.7	11014	9.9
Family	8124	9.0	6944	5.8	17351	8.9	9048	8.2
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	3966	4.4	11595	9.7	31017	15.9	9326	8.4
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	8844	9.8	15965	13.4	11014	5.6	10831	9.8
Fertilizer	1619	1.8	2334	2.0	10734	5.5	2981	2.7
Irrigation Charges	0	0.0	322	0.3	863	0.4	190	0.2
Plant Protection Charges	0	0.0	4358	3.7	7177	3.7	1980	1.8
Incidental charges	3339	3.7	5580	4.7	5665	2.9	4179	3.8
Repairs on Farm Implements	123	0.1	234	0.2	713	0.4	226	0.2
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	1520	1.7	3068	2.6	5756	2.9	2444	2.2
Depreciation	127	0.1	255	0.2	479	0.2	203	0.2
Land Revenue and Other Taxes	16	0.0	32	0.0	60	0.0	25	0.0
Rental Value of Land	53617	59.4	54528	45.8	68949	35.2	55839	50.3
Interest on Fixed Capital	190	0.2	383	0.3	719	0.4	305	0.3
Amortization Cost	1374	1.5	2634	2.2	6361	3.3	2327	2.1
Total Cost	**90297**	**100.0**	**118978**	**100.0**	**195606**	**100.0**	**110919**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Cashewnut cultivation for different size groups are given in table T.40.2. On an average, Cost A1 was ₹ 43401, which was highest on small farms (₹ 102225) and lowest on large farms (₹ 26991). The total cost of cultivation (Cost C2) per hectare of Cashewnut amounted to an average of ₹ 110919 at State level. Clearly, the table shows small farms investing enormously high amount of money in cultivation of Cashewnut per hectare amongst other farms categories thus indicating inverse relationship between cost incurred on different size farms.

Table T.40.2 Different cost concepts basis on different size holdings of Cashewnut (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	26991	54489	102225	43401
Cost A_2	26991	54489	102225	43401
Cost B_1	27181	54872	102944	43706
Cost B_2	82173	112034	178254	101871
Cost C_1	35305	61816	120295	52753
Cost C_2	90297	118978	195606	110919
Cost C_3	99327	130876	215166	122011

Income measures

A comparison of various income measures from Cashewnut cultivation are given in table T.40.3.

Table T.40.3 Returns from cultivation of Cashewnut on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	294808	272874	311831	291783
Farm Business Income	294808	272874	311831	291783
Family Labour Income	239626	215328	235801	233312
Net Income	231502	208384	218450	224265
Returns to Management	222472	196486	198889	213173
Benefit Cost Ratio	3.56	2.75	2.12	3.02

Returns over variable cost varied between ₹ 272874 to ₹ 311831 as shown in the above table. The family labour income per hectare of Cashewnut cultivation varied from ₹ 215328 in medium farms to ₹ 239626 in large farms. On an average, family labour income was worked out to be ₹ 233312 per hectare. The overall net income from Cashewnut cultivation was ₹ 224265 per hectare, wherein net income of large farms was highest (₹ 231502) and lowest for medium farms (₹ 208384). The overall returns to management from Cashewnut cultivation was ₹ 213173 per hectare. Benefit cost ratio of large farms was highest (3.56) followed by medium farms (2.75) and small farms (2.12). Hence, it indicated that with the benefit cost ratio of 3.02, the cultivation of Garlic per hectare was economically viable and profitable for different size farms.

Cost of production per quintal

The cost of production of Cashewnut across different land size categories is given in table T.40.4. On an average, ₹ 4395 was spent on producing a quintal of Cashewnut on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 4681) followed by large farms (₹ 4408) and medium farms (₹ 4141) per quintal. This indicated that in case of Cashewnut production, medium farms had economies of scale on their farms as compared to small and large farms.

Table T.40.4 Cost of production of Cashewnut on different size holdings (₹/Qtls.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	1318	1896	2447	1720
Cost A_2	1318	1896	2447	1720
Cost B_1	1327	1910	2464	1732
Cost B_2	4012	3899	4266	4036
Cost C_1	1724	2151	2879	2090
Cost C_2	4408	4141	4681	4395
Cost C_3	4849	4555	5150	4834

***

68. Coconut

Cost structure

The table T.41.1 shows the breakup of the cost incurred by different size groups in various operations of Coconut cultivation. On an average, ₹ 105781 was spent on Coconut per hectare. Cost of cultivation of small farm category was highest, ₹ 116117 followed by large farms (₹ 95158) and medium farms (₹ 89885). Among the different components of cost of cultivation, contribution of human labour was high (27.6 per cent) followed by Manure (17.2 per cent). Large farms had spent highest in cultivating Coconut per hectare on hired human labour and Plant Protection charges as compared medium and small farms.

Table T.41.1 Item-wise break up of cost of cultivation/ha. of Coconut Crop

Fixed and Variable Cost	Size Groups							
	Large	%	Medium	%	Small	%	All Classes	%
Human labour								
Hired	23380	24.6	16308	18.1	22133	19.1	20271	19.2
Family	3100	3.3	8519	9.5	9899	8.5	8937	8.4
Bullock Pair	0	0.0	0	0.0	0	0.0	0	0.0
Mechanical Power	2480	2.6	3114	3.5	4139	3.6	3673	3.5
Seed	0	0.0	0	0.0	0	0.0	0	0.0
Manure	9840	10.3	11519	12.8	22978	19.8	18171	17.2
Fertilizer	3700	3.9	3714	4.1	3226	2.8	3424	3.2
Irrigation Charges	21	0.0	830	0.9	1100	0.9	930	0.9
Plant Protection Charges	5040	5.3	1203	1.3	326	0.3	966	0.9
Incidental charges	1560	1.6	3325	3.7	4408	3.8	3835	3.6
Repairs on Farm Implements	203	0.2	248	0.3	608	0.5	458	0.4
Insurance Premium	0	0.0	0	0.0	0	0.0	0	0.0
Rab Material	0	0.0	0	0.0	0	0.0	0	0.0
Interest on working Capital	2773	2.9	2416	2.7	3535	3.0	3104	2.9
Depreciation	292	0.3	255	0.3	373	0.3	327	0.3
Land Revenue and Other Taxes	29	0.0	25	0.0	37	0.0	33	0.0
Rental Value of Land	39521	41.5	34299	38.2	36418	31.4	35935	34.0
Interest on Fixed Capital	292	0.3	255	0.3	373	0.3	327	0.3
Amortization Cost	2925	3.1	3857	4.3	6564	5.7	5389	5.1
Total Cost	**95158**	**100.0**	**89885**	**100.0**	**116117**	**100.0**	**105781**	**100.0**

Cost of Cultivation on different cost concepts basis

The comparative estimates of different costs incurred in Coconut cultivation for different size groups are given in table T.41.2. The table shows that total cost of cultivation (Cost C2) per hectare of Coconut amounted to ₹ 95158, ₹ 89885 and ₹ 116117 on large, medium and small farms respectively with an average of ₹ 105781 at State level. Apparently, Cost A1 to Cost C3 were highest for small farms and lowest in medium farms. Inverse relationship was observed between cost incurred on different size farms.

Table T.41.2 Different cost concepts basis on different size holdings of Coconut (₹/ha.)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	49319	42956	62863	55193
Cost A_2	49319	42956	62863	55193
Cost B_1	49611	43211	63236	55520
Cost B_2	92058	81367	106218	96844
Cost C_1	52711	51729	73135	64457
Cost C_2	95158	89885	116117	105781
Cost C_3	104673	98874	127728	116360

Income measures

A comparison of various income measures from Coconut cultivation are given in table T.41.3.

Table T.41.3 Returns from cultivation of Coconut on farms (₹/ha.)

Different Cost Concepts	Size holding			
	Large	Medium	Small	All Classes
Returns over variable cost	187981	162989	155872	160616
Farm Business Income	187981	162989	155872	160616
Family Labour Income	145242	124579	112517	118965
Net Income	142142	116060	102618	110028
Returns to Management	132627	107071	91006	99450
Benefit Cost Ratio	2.49	2.29	1.88	2.04

The table reveals that returns over variable cost varied between ₹ 155872 to ₹ 187981. The family labour income per hectare of Coconut cultivation varied from ₹ 112517 in small farms to ₹ 145242 in large farms. On an average, family labour income was worked out to be ₹ 118965 per hectare. The overall net income from Coconut cultivation was ₹ 110028 per hectare. The overall returns to management from Coconut cultivation was ₹ 99450 per hectare. Benefit cost ratio of large farms was highest (2.49) followed by medium farms (2.29) and small farms (1.88). Overall, it indicated that Coconut production in the sample area was economical viable and profitable. However, profitablity for small farms even at the high cost of cultivation was less compared to large and medium farms categories.

Cost of production per piece

The cost of production of Coconut across different land size categories is given in table T.41.4. It reveals that on an average, ₹ 9 was spent on producing one piece of Coconut on Cost C2 basis. The cost of production on Cost C2 basis was found to be highest on small farms (₹ 9) followed by medium farms and large farms (₹ 8) per piece. This indicates that medium and large farms were more efficient and had economies of scale on their farms as compared to small farms.

Table T.41.4 Cost of production of Coconut on different size holdings (₹/Piece)

Cost	Size Groups			
	Large	Medium	Small	All Classes
Cost A_1	4	4	5	5
Cost A_2	4	4	5	5
Cost B_1	4	4	5	5
Cost B_2	7	7	9	8
Cost C_1	4	4	6	5
Cost C_2	8	8	9	9
Cost C_3	8	8	10	10

***

Total Value of Output
and
Inputs*
Season wise Crop wise Results

*** The input components which are considered for compilation of Gross Value Added of the Crop Sector are only considered here. Hence the other input components like labour etc. are not given.**

Volume I
Section E

Season: Kharif

(Value in ₹/ha.)

Sr. No.	Crop	Seed	Manure	Fertilizer	Plant Protection Chemicals	Repair and mainte-nance on farm implements	Irrigation Charges	Incidental Charges	Total Input Cost	Total value of Output
A	**Cereals**									
1	Bajra	1023.51	2444.67	2836.01	401.82	52.07	713.04	1797.37	9268.49	33409.38
2	Maize	2750.24	3816.97	5116.80	1327.99	58.87	1021.02	1680.44	15772.34	65390.11
3	Paddy	2435.82	5037.82	5618.79	1571.96	76.16	639.08	2064.22	17443.84	74608.74
4	Jowar	2258.21	1532.47	3263.76	464.61	26.65	417.81	1903.04	9866.56	54535.95
5	Ragi	702.76	1574.27	1921.76	371.33	49.29	929.01	1719.84	7268.26	27266.84
B	**Pulses**									
6	Tur	2086.96	2635.96	3864.58	3527.38	70.77	589.14	2439.49	15214.28	81309.80
7	Moong	1715.48	2612.23	2826.78	1374.15	36.84	187.76	1928.24	10681.48	54359.06
8	Udid	1624.55	2830.54	2232.53	562.61	34.47	427.24	2328.51	10040.45	53622.46
C	**Oilseeds**									
9	Groundnut	10520.43	7002.24	5197.98	1487.78	96.66	1765.96	2593.87	28664.91	93739.41
10	Soyabean	4155.79	3503.61	3375.81	2063.01	45.72	442.48	1925.55	15511.96	68284.15
D	**Fibre**									
11	Cotton	4898.12	3533.02	4818.09	4031.85	47.67	736.06	2076.85	20141.66	88290.97
E	**Condiments & Spices**									
12	Ginger	81356.77	8096.86	7333.28	9625.25	83.00	2097.61	3258.08	111850.84	422929.12
13	Turmeric	87912.27	9995.26	8115.17	5157.08	34.15	1506.44	5725.59	118445.96	343055.18
14	Red Chilli	9576.73	9227.66	6854.64	5558.65	55.40	1387.55	6717.55	39378.18	151022.16
15	Coriander Seed	1715.52	1077.59	431.32	2270.11	48.89	385.31	1585.06	7513.80	94422.41
16	Ajwain	13970.99	0.00	0.00	0.00	100.14	0.00	3902.42	17973.55	239072.86
F	**Vegetables**									
17	Beans	4756.61	7154.93	13210.13	8095.30	48.00	1806.09	11376.57	46447.63	289027.91
18	Cabbage	14322.50	3005.30	11890.46	8289.67	65.66	2206.70	10791.21	50571.50	263721.79
19	Cauliflower	19439.68	4134.76	12319.98	8169.29	42.00	1606.54	9340.08	55052.33	218118.21
20	Capsicum	28483.73	0.00	8363.92	7136.98	41.32	3472.36	6947.78	54446.09	360600.36
21	Brinjal	9181.82	7344.10	14188.46	13965.18	62.88	1907.57	11787.86	58437.87	232266.40
22	Okra	12564.58	3928.82	8129.30	10772.74	61.81	2055.50	5462.70	42975.46	185013.33
23	Onion	5584.63	5326.38	9473.85	4171.95	85.32	1874.69	6715.24	33232.07	91480.96
24	Ivy Gourd	5247.24	11706.90	8410.34	10639.66	84.61	3201.94	4346.55	43637.24	245962.07
25	Potato	51465.06	12622.09	7975.21	8421.49	22.38	1734.64	17900.08	100140.95	297048.08
26	Sweet Potato	10862.37	6982.17	9514.64	500.00	196.81	4272.32	10192.06	42520.37	182331.63
27	Pumpkin	4055.56	2343.21	7129.63	6048.77	25.65	2353.53	19993.83	41950.16	371669.75
28	Tomato	15681.15	10554.47	13055.98	9153.20	51.61	2606.18	19727.88	70830.47	280089.34
29	Bittergourd	3953.61	5412.37	12668.04	11579.38	97.35	3129.76	7884.02	44724.54	296831.96
30	Bottlegourd	4574.33	4889.76	6801.57	5459.06	34.44	3441.45	4053.54	29254.16	107677.17
31	Pointed Gourd	4622.30	0.00	7524.59	9106.56	31.24	2732.94	4034.43	28052.05	108327.87
32	Ridgegourd	3884.73	4124.90	10626.83	9707.79	63.96	2311.80	8711.26	39431.27	198433.31
33	Sponge Gourd	2516.67	4366.67	13056.67	11763.33	101.60	4821.53	7983.33	44609.79	186583.33
34	Peas	7150.00	1750.00	9250.00	4375.00	8.37	0.00	2069.83	24603.20	111270.83
35	Green Chilli	8874.10	6141.72	11376.49	10289.68	42.52	2992.57	4923.95	44641.03	238038.84
36	Coriander	3641.19	3212.37	1363.64	1887.29	61.55	2436.24	1953.23	14555.52	86900.19
37	Fenugreek	1966.53	1019.27	5908.72	0.00	87.22	1961.21	4331.14	15274.09	105518.26
38	Leafy Vegetables (Spinach)	6777.66	2212.77	4219.47	3742.29	74.97	1932.66	3090.43	22050.24	73143.62
39	Other Vegetables (Clusterbean)	2855.16	3597.86	6256.58	3752.14	40.56	1747.30	4676.51	22926.11	76912.10

Season: Rabi

(Value in ₹/ha.)

Sr. No.	Crop	Seed	Manure	Fertilizer	Plant Protection Chemicals	Repair and mainte-nance on farm implements	Irrigation Charges	Incidental Charges	Total Input Cost	Total value of Output
A	**Cereals**									
1	Maize	1440.98	620.74	2448.04	486.75	38.76	635.09	1581.40	7251.76	62407.00
2	Jowar	2180.44	766.03	3235.40	127.80	22.77	355.03	1769.19	8456.66	61300.75
3	Wheat	4071.28	524.05	4207.36	1717.37	40.59	2061.62	943.50	13565.76	64789.21
B	**Pulses**									
4	Gram	5764.35	928.20	4056.03	2410.02	44.22	1560.25	1773.62	16536.69	68085.16
5	Horsegram	1030.93	3785.44	6420.75	0.00	156.16	0.00	1912.05	13305.33	74090.69
C	**Condiments & Spices**									
6	Garlic	29344.44	4261.06	3730.86	1639.96	46.38	1535.46	5571.50	46129.65	346902.86
D	**Vegetables**									
7	Beans	4412.13	0.00	13433.85	5901.43	15.51	2064.75	13687.42	39515.08	343615.43
8	Cauliflower	18409.09	0.00	18947.27	9168.18	29.03	1851.96	10709.09	59114.63	260681.82
9	Capsicum	21933.43	4464.09	16757.18	10480.66	88.76	6035.02	9284.31	69043.45	381123.76
10	Brinjal	10586.77	7259.45	10788.23	13369.07	92.97	2728.90	12156.36	56981.75	265218.99
11	Cucumber	3039.15	3592.43	8184.14	5144.37	29.03	2694.34	4793.22	27476.68	171836.05
12	Pumpkin	3923.91	5358.70	10547.83	11641.30	43.15	2263.51	14244.57	48022.96	267123.59
13	Bittergourd	4847.14	2035.40	12610.62	11991.95	86.21	3296.94	7944.89	42813.15	257405.47
14	Pointed Gourd	3918.75	0.00	7412.50	6931.25	37.96	2601.78	3517.19	24419.43	106035.94
15	Sponge Gourd	3967.74	0.00	9988.71	12674.19	38.39	2885.19	9798.39	39352.61	269961.29
16	Beetroot	14791.67	1250.00	11338.54	2895.83	142.84	3476.22	9198.96	43094.05	269320.31
17	Carrot	5586.21	9701.15	5656.32	0.00	172.92	1897.31	7812.64	30826.55	644252.87
18	Radish	1675.53	0.00	11251.06	1018.35	52.61	3504.67	4242.55	21744.78	290305.64

Season: Summer

(Value in ₹/ha.)

Sr. No.	Crop	Seed	Manure	Fertilizer	Plant Protection Chemicals	Repair and mainte-nance on farm implements	Irrigation Charges	Incidental Charges	Total Input Cost	Total value of Output
A	**Cereals**									
1	Bajra	1230.77	0.00	3634.62	168.27	17.52	29.81	1770.19	6851.17	48298.08
2	Maize	2956.35	0.00	4390.88	3103.87	60.14	1875.00	1536.46	13922.71	56078.18
3	Paddy	3396.84	3226.22	8708.17	391.86	48.80	375.41	6667.55	22814.85	73529.07
B	**Oilseeds**									
4	Groundnut	10426.96	568.60	5147.78	705.80	42.92	3446.69	1862.46	22201.22	117155.63
C	**Fruits**									
5	Watermelon	3825.00	0.00	6205.68	5548.86	30.64	2848.81	17762.91	36221.9	448792.68
6	Muskmelon	4304.88	0.00	7012.20	5952.44	21.89	2563.21	19207.32	39061.93	760656.10
D	**Vegetables**									
7	Cucumber	4693.55	0.00	5750.00	7241.94	24.98	3148.04	8243.55	29102.05	107051.61

Season: Perennial

(Value in ₹/ha.)

Sr. No.	District	Seed	Manure	Fertilizer	Plant Protection Chemicals	Repair and mainte-nance on farm implements	Irrigation Charges	Incidental Charges	Total Input Cost	Total value of Output
A	**Sugar**									
1	Sugarcane	19682.54	11919.93	16183.48	3295.52	131.09	2034.42	4489.30	57736.27	218381.78
B	**Fruits**									
2	Banana	30647.04	19678.96	13411.79	9066.26	71.24	1928.46	6127.28	80931.04	423450.49
3	Limes	0.00	18011.64	9152.26	5446.49	86.98	2219.16	7273.22	42189.76	245124.45
4	Pomegranate	0.00	11120.43	17528.33	43924.36	80.02	2476.48	5441.41	80571.03	715490.60
5	Mandarin	0.00	9564.50	6931.99	9977.00	89.27	1554.40	6225.85	34343	332840.71
6	Grapes	0.00	11788.25	54379.43	106032.84	187.68	2914.46	10899.74	186202.4	1014821.41
7	Mango	0.00	20632.40	12014.42	41341.07	119.29	3740.87	15837.92	93685.98	553005.49
8	Sapota	0.00	33363.81	11803.08	17804.16	49.96	2095.63	13269.93	78386.56	272617.16
9	Sweet Orange	0.00	5403.46	10015.63	8803.98	159.77	2348.36	9806.51	36537.71	327295.48
10	Papaya	23719.49	13158.84	35205.24	8161.81	133.15	2274.03	13924.05	96576.62	490158.97
11	Guava	0.00	8515.15	5085.74	22926.20	48.70	1024.99	4845.54	42446.33	374739.75
12	Custard Apple	0.00	19155.65	13003.93	9169.24	218.34	4236.42	6009.47	51793.04	187020.15
13	Fig	0.00	51241.38	81408.05	60529.89	132.25	1949.99	16827.59	212089.1	1731074.60
14	Ber	0.00	8554.05	22972.97	50810.81	29.13	2540.78	1777.03	86684.77	540878.38
15	Strawberry	101687.50	7031.25	16489.58	35947.92	176.08	1551.11	19656.25	182539.7	891398.96
16	Other Fruits (Jackfruit)	0.00	766.02	13339.83	14651.81	171.36	2439.28	20417.83	51786.12	418565.46
C	**Plantation Crops**									
17	Arecanut	0.00	7377.84	1533.56	0.00	162.45	1929.73	4189.29	15192.86	90471.13
18	Cashewnut	0.00	10831.43	2980.81	1980.36	226.23	189.77	4179.08	20387.67	335183.78
19	Coconut	0.00	18170.60	3424.39	966.10	457.66	930.08	3835.48	27784.31	215809.19

Note :

1. The input components which are considered for compilation of Gross Value Added of the Crop Sector are only considered here. Hence the other input components like labour etc. are not given.
2. The Total input cost given here is the sum total of seed, manure, fertilizers, plant protection chemicals, repair & maintenance of farm implements, irrigation charges and incidental charges.
3. Irrigation charges includes electricity charges and cost of diesel consumption for irrigation purpose.
4. Incidental charges includes the expenses incurred for procuring the inputs (other than cost of inputs).
5. The districtwise input costs; Total input costs and Total value of Output are presented in Volume II of this report.

***

Section F - Questionnaire used for the Survey

Directorate of Economics & Statistics, Government of Maharashtra
Survey for Collection of Farm Activities data
Conducted by M/s. AFC India Ltd.

Date of Survey					2	0	1	8
Name of Enumerator								
Name of Supervisor								

District :		**Taluka:**		**Season Code**
Village:		**Gram Panchayat**		
Questionnaire S.No. District /Crop wise		**District Code (Please refer the last page):**		

Season Codes
Kharif-1, Rabbi-2, Summer-3, Perennial-4

Block A - General Profile

Sr. No.	Particulars	Response		
1	**Name of the Respondent**			
2	**Gender of Respondent (Male=1, Female=2)**			
3	**Name of the Head household**			
4	**Gender of Head of household (Male=1, Female=2)**			
5	**Relation of respondent to the head of household (code)**			
6	**Address for identification of household (House No/lane/Hamlet etc/Mobile No.)**			
7	**Source of Income of the household during last 365 days:**	**Activity**	**Whether performed? (yes-1, no-2)**	**principal income source? (yes-1, no-2)**
		Cultivation		
		Livestock		
		Other agricultural activities		
		Others		
8	**Household size (Number of members in family)**			

9	**Age - Groupwise Distribution of family member**												
	AGE GROUP	**Up to 6 years of age**		**6-18**		**18-25**		**25-58**		**>58**		**Total**	
		M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
	Nos.												

10	**Social Category of respondent (Indicated as Coded : SC = 1, ST = 2, OBC = 3, OTHERS = 4)**	1	2	3	4

11	**How much area (owned + leased) did you cultivate in the year 2018-19 (in Acres) and land cess/tax &/or lease rental paid (`):**					
	2018-19	**Land Cultivated (Acres)**		**Land Cess/ Tax Paid &/or Lease**		**Leased rent**
		Irrigated	**Rain fed**	**Irrigated**	**Rain fed**	
	Own Land					
	Leased in land					
	Area under Target Crop					

Block B - Production Details

1	**Details on Production of target crop.**			
	Crop in 2018-19	**Area (Acres)**	**Production (Qtls.)**	**No. Of Lines of Crop**
	Sole Target Crop in 2018-19			
	Area under crop (2018-19)			
	Intercrop 1			
	Intercrop 2			

2	**Awareness about Minimum Support Price:**	1-Yes	2-No
	If Yes, then mention the name of the agency:		
3	**Have you sold any quantity out of the production as mentioned in Sr. 12:**	1-Yes	2-No

If exact price realised is not known, on an average price realised should be mentioned:	Sole Target Crop		Intercrop 1		Intercrop 2	
Quantity (Qtls.)						
Price (₹)						

CODES

Relation to head: Self - 1, spouse of head - 2, married child - 3, spouse of married child - 4, unmarried child - 5, grandchild - 6, father/mother/father-in-law/mother-in-law - 7, brother/sister/brother-in-law/sister-in-law/other realtives - 8, servants/employees/other non-relatives - 9

Directorate of Economics & Statistics, Government of Maharashtra
Survey for Collection of Farm Activities data
Conducted by M/s. AFC India Ltd.

Block C - Cultivation Activities

Sr. No.	Activity		Hired		Domestic		Mechanical Power (Tractor/ Rotavator/ Seed Drill etc.)	Bullock Pair	If the farmer has given contract for any of the farm activities- Total Contract Amount (Rs.)
			Male	Female	Male	Female			
1	Preparatory Tilling	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
2	Installation of Drip Equipment	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
3	Laying of Mulch Paper	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
4	Nursery Preparation	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
5	Seed Sowing/ Planting/Transplanting	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
6	Application of Fertilizers (Other than Basal Dose)	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
7	Spraying of Agrochemicals	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
8	Hoeing	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
9	Weeding	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
10	Training, Pruning, Proping, Removal of Excess Flower/Fruits, Wrapping of Fruits	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
11	Irrigation	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
12	Harvesting,Threshing & Winnowing	Number of Days/ Hrs							
		Rate per Day/Hours/Person							
13	Any Other (e.g Milling of Paddy)	Number of Days/ Hrs							
		Rate per Day/Hours/Person							

Note: *(In total area under target crop in 2018-19 as reported in Ques. No. 12)*

Directorate of Economics & Statistics, Government of Maharashtra
Survey for Collection of Farm Activities data
Conducted by M/s. AFC India Ltd.

Block D - Expenses for crop production & details of Agricultural Inputs

Sr. No.	Input	Type/Variety	Way of procurement (Code)	Volume		Expenses (Rs.)
				Unit (Code)	Quantity	
1	*2*	*3*	*4*	*5*	*6*	*7*
1.1	**Seed**					
1.2						
1.3						
1.4						
1.5						
2.1	**Fertilizers**					
2.2						
2.3						
2.4						
2.5						
3.1	**Manures**					
3.2						
3.3						
3.4						
3.5						
4.1	**Plant Protection Chemicals**					
4.2						
4.3						
4.4						
4.5						
4.6						
4.7						
4.8						
4.9						
4.10						
5	**Diesel (excluding irrigation)**					
6	**Repair and maintenance of Machinery & equipments:**					
	(a)	Repair of Equipment				
	(b)	Do you have Diesel Engine? (Yes=1,No=2) If Yes, then - (Diesel/Oil) (Usage: _____ litre)				
	(c)	Others				
	(d)	If rented, then total rent paid:				
7	**Other expenses**					
8	**Total (1 to 7)**					

CODES

***col. (4 and 5): unit**: Metric Tonne - 1, kilogram - 2, piece - 3, Litre- 4, other (important to mention) - 5*

Directorate of Economics & Statistics, Government of Maharashtra
Survey for Collection of Farm Activities data
Conducted by M/s. AFC India Ltd.

Expenses for crop production & details of Agricultural Inputs

Block E - Area Under Irrigation, Source of Irrigation and Expenditure for Irrigation

Sr. No.	Area under		Source of Irrigation (code)	Expenditure for Irrigation (`)				
	Irrigation (Ha.)	Non-Irrigation (Ha.)		Rent/tax	Electricity charges	Diesel	Other	Total

CODES
Wells - 1, Tube Wells - 2, Rivers - 3, Lakes & Ponds - 4, Canals - 5, Dams & Reservoirs - 6, Lift Irrigation - 7, Others - 8

Have you used the following method of Irrigation: Please mention the expenditure incurred in 2018-19, if any?			
			Expenses
Drip Irrigation:	Yes - 1	No - 2	₹ _____
Sprinklers:	Yes - 1	No - 2	₹ _____

Block F - The incidental Expenses incurred in connection with cultivating the identified crop under consideration

Sr. No.	Purpose	Distance	No. of round trips	Travel Expenses		No. of Days	Lodging, Boarding and Other Expenses
				Fuel	Fare		
1	Procurement of Seeds, Fertilizer, Chemicals etc., Other Inputs						
2	Crop related activities like 7/12 abstract registration, Insurance etc.						
3	Expenditure incurred in connection with selling of the production of the identified crop to include Transportation, Travelling, Cess, Taxes etc.						
4	Brokerage						
	Total Expenses of Block F						

Section G :

References :

1. ***ECONOMICS ANALYSIS OF POST HARVEST LOSSES OF KAGZI LIME IN AKOLA DISTRICT: AT FARM LEVEL*** - MUNDE T.B., KHOBARKAR V.K., WAVDHANE V.P. AND DESHMUKH R.G. Department of Agriculture Economics and Statistics, Dr Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra 444104, India.- International Journal of Agriculture Sciences ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 11, Issue 4, 2019, pp.-7880-7884. Available online at https://www.bioinfopublication.org/jouarchive.php?opt=&jouid=BPJ0000217

2. ***Indian Agricultural Statistics: System and Reforms*** R S Deshpande, Professor Agricultural Development and Rural Transformation Unit Institute for Social and Economic Change Bangalore. RSD/AG-Stat/Papers/30-09-05

3. ***Assessment of cost and returns of onion growing farmers in Deogarh district, Orissa, India*** Gyanaprakash Bishi, Dinesh and OP Singh DOI: Journal of Pharmacognosy and Phytochemistry 2020; Sp 9(4): 537-540 https://doi.org/10.22271/phyto.2020.v9.i4Si.12214

4. ***Cost of cultivation and returns on different cost concepts basis of onion in Rajasthan*** –

   By Susheela Meena , I.P.Singh from Department of Agricultural Economics, SKRAU, Bikaner-334 006 Rajasthan, India and Ramji Lal Meena, A.V.P., J.M. EnviroNet Pvt. Ltd. (Environmental Consultancy), Jaipur – 302 017 Rajasthan, India - DOI: 10.5958/0976-4666.2016.00002.4 - Website: http://www.ndpublisher.in

5. ***Changing Pattern of Input Use and Cost of Cultivation*** - M Raghavan, Economic & Political Weekly EPW - June 28, 2008

6. ***Comparison of Cost And Returns of Major Food Crops Under Central Dry Zone of Karnataka***, Hamsa, K. R Srikantha Murthy,P. S from Dept. of Agricultural Economics, University Of Agricultural Sciences, Bengaluru, Karnataka-, India and Gaddi, G. M from Dept. of Agricultural Economics, Collage Of Agricultural Sciences, Hassan, Karnataka, India - IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS) e-ISSN: 2319-2380, p-ISSN: 2319-2372. Volume 10, Issue 6 Ver. I (June. 2017), PP 21-26 www.iosrjournals.org

7. ***Cost of Cultivation and Profitability of Agriculture in West Bengal: A Study with Special Reference to Backward Region of West Bengal*** - Samir Show Department of Economics, Vidyasagar University, West Bengal, India - Economic Affairs, Vol. 63, No. 4, pp. 1067-1075, December 2018 DOI: 10.30954/0424-2513.4.2018.33 Online ISSN : 0976-4666

8. ***Cost, Returns and Profitability of Paddy Production in Chandrapur District of Maharashtra*** - S.R. Dhurve1 and R.D. Shelke2 and D.U.Meshram3 Department of Agricultural Economics, College of Agriculture, Latur. - Bulletin of Environment, Pharmacology and Life Sciences, Bull. Env. Pharmacol. Life Sci., Vol 8 [8] July 2019 : 81-84 ©2019 Academy for Environment and Life Sciences, India Online ISSN 2277-1808 Journal's URL:http://www.bepls.com

9. ***Cost of cultivation and resource use efficiency of major rabi crops in vidisha district of Madhya Pradesh*** - A.K. Verma from Department of District Central Cooperative Bank, Vidisha M.P., India, R.F. Ahirwar, and U.S. Thakur from Department of Agricultural Economics and Farm Management, Jawaharlal Nehru Krishi Vishwa Vidyalaya, College of Agriculture, Ganj Basoda, Vidisha M.P., India. - DOI: 10.5958/0976-4666.2016.00031.0 – Website: http://www.ndpublisher.in.

10. ***ECONOMIC ANALYSIS OF COST AND RETURN STRUCTURE OF PADDY CULTIVATION UNDER TRADITIONAL AND SRI METHOD: A COMPARATIVE STUDY*** by AGARWAL P.K, Department of Agricultural Economics and Statistics, K.A.P.G. College, Allahabad, 211002, Allahabad State University, Allahabad, 211001, Uttar Pradesh, India., YADAV P., College of Agriculture, Amreli, Junagadh Agricultural University, Junagadh, 365601, Gujarat, India AND MONDAL S. Ramakrishna Mission Vivekananda University, Morabadi, Ranchi, 834008, Jharkhand - International Journal of Agriculture Sciences.

    ISSN: 0975-3710&E-ISSN: 0975-9107, Volume 10, Issue 8, 2018, pp.-5890-5893. Available online at https://www.bioinfopublication.org/jouarchive.php?opt=&jouid=BPJ0000217

11. ***Comparative Study on Cost of Cultivation and Economic Returns from Major Crops in Eastern Region of Uttar Pradesh*** - Pushpa, Division of Dairy Economics Statistics & Management (NDRI), Karnal, Haryana, India, S.K. Srivastava, Department of Agriculture Economics, G.B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand, India and Punit Kumar Agarwal, Department of Agriculture Economics, College of Agriculture Science, Banaras Hindu University (BHU), Uttar Pradesh, India, International Journal of Agriculture, Environment and Biotechnology Citation: IJAEB: 10(3): 387-399, June 2017 DOI: 10.5958/2230-732X.2017.00047.X. Online ISSN : 2230-732X

12. ***A Study on Estimation of Average Yield of Cotton*** by Pramod Kumar Moury , Thesis submitted to the Faculty of Post-Graduate School, Indian Agricultural Research Institute, New Delhi, in partial fulfillment of the requirements for the degree of Master of Science in AGRICULTURAL STATISTICS, Indian Agricultural Statistics Research Institute Indian Agricultural Research Institute New Delhi – 110012

13. ***Working Paper No. 352- Crop Insurance in India: Key Issues and Way Forward***, Ashok Gulati, Prerna Terway, Siraj Hussain, February 2018, INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS (ICRIER)

14. ***Rural Poverty and Agricultural Development in Tamil Nadu***, Dhas, Albert Christopher The American College, Madurai - 30 October 2012, Online at https://mpra.ub.uni-muenchen.de/42347/ MPRA Paper No. 42347, posted 18 Nov 2012 13:54 UT

15. ***Profitability in Crops Cultivation in India: Some Evidence from Cost of Cultivation Survey Data***, A. Narayanamoorthy, NABARD Chair Professor and Head, Department of Economics and Rural Development, Alagappa University, Karaikudi – 630 003 (Tamil Nadu).

16. ***Cost and Returns of Grapes Cultivation in Tamil Nadu*** G. Suresh, Assistant Professor, Department of Commerce, CHRIST (Deemed to be University), Bengaluru, Karnataka, India; Dinesh Kumar R., Assistant Professor, Department of Commerce, CHRIST (Deemed to be University), Bengaluru, Karnataka, India; Dr. Jothi M., Assistant Professor, Department of Accounting & Finance, School of Business and Economics, Ambo University, Woliso Campus, Ethiopia. International Journal of Management Studies ISSN(Print) 2249-0302 ISSN (Online)2231-2528 http://www.researchersworld.com/ijms/, DOI : 10.18843/ijms/v6i1(6)/12 DOI URL :http://dx.doi.org/10.18843/ijms/v6i1(6)/12

17. ***District-wise Cost of Cultivation of Important Crops in Punjab***, Department of Economics and Sociology Punjab Agricultural University Ludhiana- 141 004

18. ***Final Report of Prof.Vaidyanathan Committee on Improvement of Agriculture Statistics***

19. ***Final Report of National Commission on Farmers under Chairmanship of Prof.M.S.Swaminathan***

20. ***Manual On Area and Crop Production Statistics***, CSO, MoSPI, GoI. (CSO-M-AG-01)

21. ***MANUAL ON COST OF CULTIVATION SURVEYS***, CSO, MoSPI, GoI. (CSO-M-AG-02)

22. ***MANUAL ON HORTICULTURE STATISTICS***, CSO, MoSPI, GoI. (CSO-MHS-2011)

23. ***महाराष्ट्र शासन कृषि व पणन विभाग, शासकीय योजना व कार्यक्रमांविषयी शेतकरी मित्र पुस्तिका २०१४***.

24. ***Comprehensive district agricultural plan (CDAP), Pune District***, District Superintending Agriculture Officer, Pune.

25. ***REPORT OF THE SUB-COMMITTEE ON AGRICULTURE AND ALLIED SECTORS***, GOVERNMENT OF INDIA CENTRAL STATISTICS OFFICE Ministry of Statistics and Programme Implementation NEW DELHI – 2014 (Chairman of the Sub-Committee Prof.S.Mahendra Dev, Director, Indira Gandhi Institute of Development Research IGIDR, Mumbai)

26. ***State of Agriculture in India***, Tanvi Deshpande, March 2017, PRS Research

27. ***REPORT ON IMPACT EVALUATION OF PILOT WEATHER BASED CROP INSURANCE STUDY (WBCIS)*** - Submitted to : Department of Agriculture and Cooperation Ministry of Agriculture Government of India By : Agricultural Finance Corporation Ltd. Head Office, Mumbai JANUARY,2011

28. ***REPORT OF THE WORKING GROUP ON AGRICULTURE STATISTICS FOR THE TENTH FIVE YEAR PLAN*** – Government of India – Planning Commission-New Delhi - 2001.

29. ***ANNUAL REVIEW OF CROP STATISTICS SYSTEM IN KERALA THROUGH THE SCHEME FOR IMPROVEMENT OF CROP STATISTICS 2016-17***, DEPARTMENT OF ECONOMICS & STATISTICS GOVERNMENT OF KERALA

30. ***AREA, PRODUCTION AND PRODUCTIVITY TREND OF IMPORTANT CROPS IN KERALA (FROM 1985-86 TO 2004-05),*** DEPARTMENT OF ECONOMICS & STATISTICS, GOVERNMENT OF KERALA, THIRUVANANTHAPURAM

31. ***Report On Cost of Cultivation of Important Crops in Kerala 2016-17***, Department of Economics & Statistics, GOVERNMENT OF KERALA – 2019

32. ***50 YEARS OF AGRICULTURE STATISTICS OF RAJASTHAN (1956-57 TO 2005-06)***, DIRECTORATE OF ECONOMICS & STATISTICS, RAJASTHAN YOJANA BHAWAN, JAIPUR.

***

The report on 'Collection of Farm Activities Data and Other Related Studies' (2018-19)
is presented in three volumes.**Volume I ,II and III.**
This report is available on DES website
https://mahades.maharashtra.gov.in

https://mahades.maharashtra.gov.in