



Detailed Project Report on Oil Extraction Mill

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Oil Extraction Mill
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	2000 kg/day
4	Key components of the project	Oil extraction, Packaging and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Mustard Oil
7	Total Project Cost	Rs. 58,35,000
8	Fixed Capital Cost	Rs. 43,39,000
9	Working/Recurring capital	Rs. 14,96,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 51,01,900
12	Promoter Contribution (min 10% of the project cost in case of bank loan)	Rs. 7,33,100
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	Rs. 18,01,345 2.37 28.60% 3 Years and 2 Month
17	Estimated employment to be generated (nos.)	11

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/): FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by: APICOL

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Oil seed crops occupy an important place in the agriculture and industrial economy of the country. India is perhaps the only country in the world having the largest number of commercial varieties of oil seeds. Mustard Oil is also one of the major oil seeds from which edible oil is produced. In Northern & Central India, it is medium of cooking food. Besides it is also used in preparation of Pickles. The Mustard Oil Cake (By Product) is used as cattle feed.

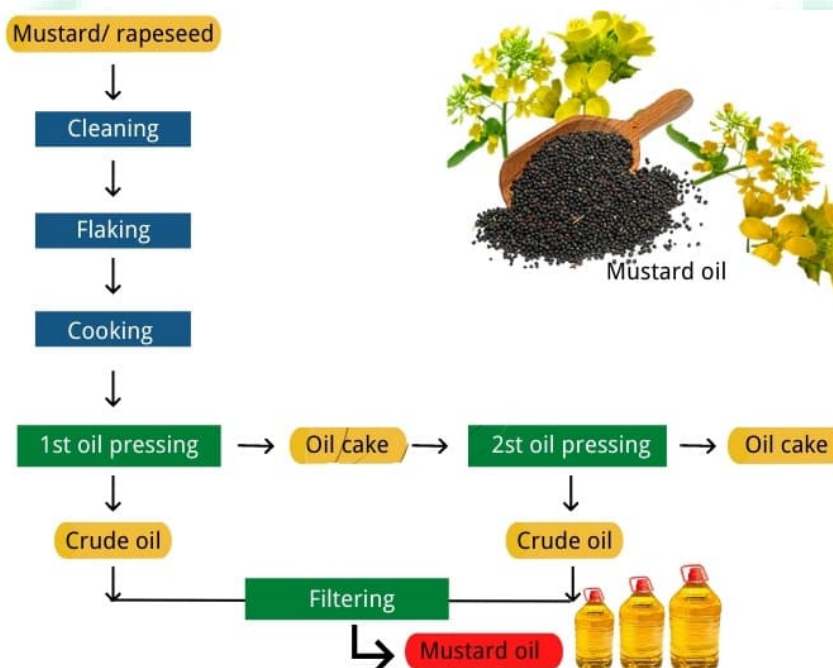
It has enormous demand as one of the edible oils and used as cooking medium especially in northern, eastern and northeastern of India. The demand of Mustard Oil is increasing with the time. Refined Ghani, filtered, double filtered mustard oil has given new thrust to its market. Due to consumption in household and in pickle industries it appears to be good scope for establishing mustard oil industry.

Raw Material, Manufacturing process & Source of Technology

Mustard oil is extracted from mustard seeds and is commonly used in India. It is an ancient oil that is said to be loaded with many health benefits. Mustard oil is full of MUFA which is very important for our health. Mustard oil is made from pressing the seeds of a mustard plant to produce a spicy oil. The seeds are to be dried in sun and then they are to be cleaned by shakers to remove dust and foreign materials. The seeds are initially steamed and then passed through the expeller and the process is repeated till the maximum oil is extracted out of the seeds. The filtered oil is filled into the containers, which are subsequently sealed and labeled for marketing. On an average around 35% recovery of oil from the seed is made.

The quality of seeds should conform at least to the quality and standard laid down in P.F.A. Act. However, for better marketing the standards may be maintained as per 'AGMARK' specification. The entrepreneur may approach the appropriate authorities to get 'AGMARK' or ISI specification for better marketing of the product.

Process Flow





Market Potential

The India mustard oil market is expected to exhibit a growth rate (CAGR) of 4.3% during 2023-2028. Mustard oil refers to a type of vegetable oil that is naturally extracted from the seeds of black, brown, and white mustard.

Mustard oil refers to a type of vegetable oil that is naturally extracted from the seeds of black, brown, and white mustard. In India, it is widely available in different forms, including refined mustard oil, Grade I (Kachchi Ghani) mustard oil, and Grade II (non-edible) mustard oil. Some of the key factors driving the demand of mustard oil in India include rising disposable incomes, health benefits, strong demand from both urban and rural regions and diversified applications in both food and non-food applications.

India is among the biggest consumers of mustard oil based on its high consumption in various culinary practices, such as cooking, frying, poaching, dressing, etc. Additionally, the expanding agriculture sector contributes to the increasing availability of high yielding mustard seeds, thereby catalyzing the mustard oil production. Furthermore, the Indian government has launched several initiatives for enhancing the production of oilseeds in the country to reduce imports and achieve self-sufficiency in edible oil production. Moreover, the wide presence of brick-and-mortar retail centers, including convenience stores, grocery stores, supermarkets, hypermarkets, etc., is also propelling the demand for mustard oil in the country. In line with this, the increasing sales of mustard oil over e-commerce platforms supported by several discounted offers, cashback, doorstep delivery options, etc., are also catalyzing the market for mustard oil in India. Moreover, the market is further driven by the growing demand for mustard oil in the personal care sector in India.

Key Market Segmentation:

Breakup by Packaging Type:

- Pouches
- Jars
- Cans
- Bottles

Breakup by Packaging Material:

- Metal
- Plastic
- Paper

Breakup by Pack Size:

- Less than 1 Litres
- 1 Litres
- 1 Litres - 5 litres
- 5 Litres - 10 Litres
- 10 Litres and Above

Breakup by Application:

- Household Cooking
- HoReCa
- Industrial Uses



Breakup by Distribution Channel:

- Direct/Institutional Sales
- Supermarkets and Hypermarkets
- Convenience Stores
- Online

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	3	%
3	Collection from Debtors (First Year)	10	Days
4	Collection from Debtors	10	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	40	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	15	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	20	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No. of working days	295	Days
18	Yield of Oil	35	%
19	Yield of Mustard Oil Cake	60	%

4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	Land				
1	Land Development	Sq. ft	5000	0.70	3,500
2	Fencing (Barbed wire/Green Fencing)	ft	300	60.00	18,000
	Sub Total				21,500
B	Civil Construction				
1	Production Area	Sq. ft	1500	400.00	6,00,000
2	RM and FG Store	Sq. ft	1500	400.00	6,00,000
3	Office	Sq. ft	200	850.00	1,70,000
	Labour Shed	Sq. ft	250	400.00	87,500
	Sub Total				14,57,500
C	Water Supply				
1	Water Supply with overhead tank, pump and pipelines etc.			LS	2,50,000
D	Electrification				
1	Electrical Installation with transformer and DG Unit				5,00,000
Plant and Machinery					



Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Oil Expeller with Single Steel gear		1	4,40,000	4,40,000
2	Filter press frame		1	1,50,000	1,50,000
3	Oil Storage Tank		2	20,000	40,000
4	Filling and capping machine - 5 lit to 50 lit		1	8,00,000	8,00,000
5	Boiler		1	5,00,000	5,00,000
6	Screw mixer		1	1,50,000	1,50,000
	Total Plant and Machinery Cost				20,80,000
E	Misc. Exp.				
	Insurance				30,000
	DPR Cost				
	Other misc. exp				
	Total Miscellaneous Expenditure				30,000

4.2. Project Variable Expenses

Details of raw material						
Sl. No.	Items	Unit	Rate per Unit (Rs)	Qty/day	Qty per annum (kg)	Total (Rs)
1	Mustard Seeds	kg	54.00	2,000	5,90,000	3,18,60,000
2	Packing material	Nos	10.00	147	43,365	4,33,650
	Total					3,22,93,650

Details of salary and other benefits

Sl. No.	Type of workers	No. of worker	Salary per month/head (Rs)	Total salary per annum (Rs)
1	Manager	1	20,000	2,40,000
2	Purchase and store	1	15,000	1,80,000
3	Skilled Worker	3	12,000	4,32,000
4	Unskilled Worker	6	8,000	5,76,000
	Grand Total	11	55,000	14,28,000

4.3. Details of Sales

Details of sales						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Mustard Oil	Lit.	140.00	700	2,06,500	2,89,10,000
2	Mustard Oil Cake	kg	32.00	1,200	3,54,000	1,13,28,000
	Total					4,02,38,000



4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	14,37,820	16,70,675	18,62,702	21,87,521	26,05,589	29,16,126
Add: Introduced	7,33,100						
Add: Profit	11,75,720	13,47,856	14,35,026	17,84,820	21,56,067	22,55,538	24,54,388
Less: Drawing	4,71,000	11,15,000	12,43,000	14,60,000	17,38,000	19,45,000	21,49,000
Closing Capital	14,37,820	16,70,675	18,62,702	21,87,521	26,05,589	29,16,126	32,21,515
Term Loan from Bank	35,12,901	30,75,316	25,87,095	20,42,378	14,34,626	7,56,546	-
Current Liabilities							
Cash Credit from Bank	11,96,800	11,96,800	11,96,800	11,96,800	11,96,800	11,96,800	11,96,800
Sundry Creditors	9,68,810	13,56,350	15,13,200	16,82,350	18,64,650	19,57,900	20,55,800
Expenses Payable	3,06,200	3,84,900	4,20,800	4,59,300	5,00,600	5,25,700	5,52,200
Current Provisions	2,36,023	3,09,795	3,47,154	4,97,066	6,56,172	6,98,802	7,84,024
Total Current Liabilities	27,07,832	32,47,845	34,77,954	38,35,516	42,18,222	43,79,202	45,88,824
Total Liabilities	76,58,553	79,93,837	79,27,751	80,65,414	82,58,436	80,51,875	78,10,338
Assets							
Fixed Assets							
Less Depreciation	43,09,000	43,09,000	43,09,000	43,09,000	43,09,000	43,09,000	43,09,000
Net Fixed Assets	5,57,750	10,40,375	14,58,290	18,20,433	21,34,479	24,07,019	26,43,719
Current Assets	37,51,250	32,68,625	28,50,710	24,88,567	21,74,521	19,01,981	16,65,281
Sundry Debtors							
Inventories	8,04,800	11,26,700	12,57,000	13,97,500	15,48,900	16,26,400	17,07,700
Cash and Bank Balance	13,94,500	17,88,600	21,11,781	23,50,036	26,06,876	27,78,659	29,17,649
Other Current Assets	2,41,500	3,38,100	3,77,100	4,19,300	4,64,700	4,88,000	5,12,400
Total Current Assets	14,66,503	14,71,812	13,31,159	14,10,012	14,63,439	12,56,834	10,07,308
Total Assets	39,07,303	47,25,212	50,77,041	55,76,847	60,83,915	61,49,893	61,45,057
Total Assets	76,58,553	79,93,837	79,27,751	80,65,414	82,58,436	80,51,875	78,10,338



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	1,70,750.00	3,87,000	5,57,750
	2	1,53,675.00	3,28,950	4,82,625
	3	1,38,307.50	2,79,608	4,17,915
	4	1,24,476.75	2,37,666	3,62,143
	5	1,12,029.08	2,02,016	3,14,045
	6	1,00,826.17	1,71,714	2,72,540
	7	90,743.55	1,45,957	2,36,700

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	60	80	85	90	95	95	95
Revenue							
Sales	2,41,42,800	3,38,00,000	3,77,09,000	4,19,24,000	4,64,66,000	4,87,90,000	5,12,30,000
Opening Stock of Finished Goods	-	(4,09,200)	(5,72,881)	(6,39,136)	(7,10,576)	(7,87,559)	(8,26,949)
Closing Stock of Finished Goods	4,09,200	5,72,881	6,39,136	7,10,576	7,87,559	8,26,949	8,68,305
Total Income (A)	2,45,52,000	3,39,63,681	3,77,75,254	4,19,95,441	4,65,42,983	4,88,29,390	5,12,71,356
Expenditure							
Opening stock of Raw Material	-	9,85,300	13,79,400	15,38,900	17,10,900	18,96,300	19,91,100
Purchase (Net) of Material	1,93,76,190	2,71,27,000	3,02,64,000	3,36,47,000	3,72,93,000	3,91,58,000	4,11,16,000
Closing Stock of Raw material	9,85,300	13,79,400	15,38,900	17,10,900	18,96,300	19,91,100	20,90,700
Raw Material Consumption	1,83,90,890	2,67,32,900	3,01,04,500	3,34,75,000	3,71,07,600	3,90,63,200	4,10,16,400
Repair & Maintenance - Machinery (@5% of Cost)	42,875	45,100	47,400	49,800	52,300	55,000	57,800
Electricity expense	19,31,424	27,04,000	30,16,800	33,54,000	37,17,300	39,03,200	41,01,800
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	14,28,000	14,99,400	15,74,400	16,53,200	17,35,900	18,22,700	19,13,900
Other Misc. Expenses [@2% of sales]	2,41,428	3,38,000	3,77,090	4,19,240	4,64,660	4,87,900	5,12,300



Total Cost	2,20,64,617	3,13,50,900	3,51,53,290	3,89,86,040	4,31,14,360	4,53,70,500	4,76,42,700
Profit Before Depreciation, Interest and Tax	24,87,383	26,12,781	26,21,964	30,09,401	34,28,623	34,58,890	36,28,656
Depreciation	5,57,750	4,82,625	4,17,915	3,62,143	3,14,045	2,72,540	2,36,700
Profit Before Interest and Tax	19,29,633	21,30,156	22,04,049	26,47,258	31,14,578	31,86,350	33,91,956
Interest on Term Loan	4,10,178	3,64,794	3,14,157	2,57,660	1,94,626	1,24,298	45,832
Interest on Working Capital Loan	1,07,712	1,07,712	1,07,712	1,07,712	1,07,712	1,07,712	1,07,712
Total Interest Paid	5,17,890	4,72,506	4,21,869	3,65,372	3,02,338	2,32,010	1,53,544
Profit Before Tax	14,11,743	16,57,651	17,82,180	22,81,885	28,12,239	29,54,340	32,38,412
Income Tax	2,36,023	3,09,795	3,47,154	4,97,066	6,56,172	6,98,802	7,84,024
Profit after Tax	11,75,720	13,47,856	14,35,026	17,84,820	21,56,067	22,55,538	24,54,388

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	2,41,500	3,38,100	3,77,100	4,19,300	4,64,700	4,88,000
Cash Inflow during the Period	82,16,303	23,70,493	22,23,702	25,04,524	28,52,819	28,95,663	31,50,236
Cash Outflow during the Period	79,74,803	22,73,893	21,84,702	24,62,324	28,07,419	28,72,363	31,25,836
Closing Cash & Bank Balance	2,41,500	3,38,100	3,77,100	4,19,300	4,64,700	4,88,000	5,12,400

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	4,10,178.46	8,02,377.92	3,92,199.45
2	3,64,793.60	8,02,377.92	4,37,584.32
3	3,14,156.85	8,02,377.92	4,88,221.07
4	2,57,660.48	8,02,377.92	5,44,717.44
5	1,94,626.41	8,02,377.92	6,07,751.51
6	1,24,298.11	8,02,377.92	6,78,079.80
7	45,831.51	8,02,377.92	7,56,546.41
Total	17,11,545.43	56,16,645.43	39,05,100.00



4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	2,41,42,800	3,38,00,000	3,77,09,000	4,19,24,000	4,64,66,000	4,87,90,000	5,12,30,000
Net Profit	11,75,720	13,47,856	14,35,026	17,84,820	21,56,067	22,55,538	24,54,388
Interest Paid	5,17,890	4,72,506	4,21,869	3,65,372	3,02,338	2,32,010	1,53,544
Cash Accruals (a)	16,93,610	18,20,361	18,56,895	21,50,192	24,58,406	24,87,548	26,07,932
Principal	3,92,199	4,37,584	4,88,221	5,44,717	6,07,752	6,78,080	7,56,546
Interest	5,17,890	4,72,506	4,21,869	3,65,372	3,02,338	2,32,010	1,53,544
Total (b)	9,10,090	9,10,090	9,10,090	9,10,090	9,10,090	9,10,090	9,10,090
DSCR	1.86	2.00	2.04	2.36	2.70	2.73	2.87
Average DSCR	2.37						

Calculation of Break-Even Point (BEP)							
Sales	2,45,52,000	3,39,63,681	3,77,75,254	4,19,95,441	4,65,42,983	4,88,29,390	5,12,71,356
Variable Cost	1,86,32,318	2,70,70,900	3,04,81,590	3,38,94,240	3,75,72,260	3,95,51,100	4,15,28,700
Contribution	59,19,682	68,92,781	72,93,664	81,01,201	89,70,723	92,78,290	97,42,656
Fixed Cost	45,07,939	52,35,131	55,11,484	58,19,316	61,58,484	63,23,950	65,04,244
BEP Sales	1,86,96,769	2,57,95,727	2,85,45,008	3,01,66,482	3,19,52,186	3,32,81,417	3,42,29,004
Average BEP sales	2,89,52,370						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			-58,35,000
1	31-03-2023	11,75,720	5,57,750	17,33,470
2	31-03-2024	13,47,856	4,82,625	18,30,481
3	31-03-2025	14,35,026	4,17,915	18,52,941
4	31-03-2026	17,84,820	3,62,143	21,46,963
5	31-03-2027	21,56,067	3,14,045	24,70,113
6	31-03-2028	22,55,538	2,72,540	25,28,078
7	31-03-2029	24,54,388	2,36,700	26,91,089
IRR		28.60%		
Payback Period	3 Years 2 Month			



4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	21,500
2	Civil Construction	14,57,500
3	Irrigation/Water Supply	2,50,000
4	Electrification	5,00,000
5	Plant & Machinery	20,80,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other misc. exp	-
	Total Fixed Cost	43,39,000
	Recurring	14,96,000
	Cost of Project	58,35,000