DELTA 2021 PLANNING BUDGETS

Mississippi State University Department of Agricultural Economics Budget Report 2020-05

October 2020

Foreword

This report is designed to provide necessary planning data to farmers, research and extension staffs, lending agencies, and others in agriculture. Readers are cautioned that returns presented are labeled "Returns Above Specified Expenses." Estimated costs for land, management, and general farm overhead are not included in this report. The exception is unallocated labor, which is included. "Returns Above Direct Expenses" should be used in making 2021 planning decisions. This would be a one-year short-run decision. Decisions beyond one year, or long-run decisions, should be based on "Returns Above Specified Expenses."

Acknowledgments

A list of individuals who contributed to the development of the agricultural enterprise budgets follows this acknowledgment. The administrative committee structure and enterprise committees have shown a spirit of cooperation seldom found when so many work together. A team effort has led to many improvements in the budgets over the years.

Special appreciation is expressed to producers who provided information on crop practices used. Appreciation also is expressed to farm supply dealers, equipment dealers, custom operators, and chemical companies who provided prices for crop production inputs. The Mississippi Agricultural Statistics Service is commended for its excellence in collecting price and production practice data.

Acknowledgment is made to the Mississippi State University Extension Service, the Mississippi Agricultural and Forestry Experiment Station, and the United States Agricultural Research Service staffs for the excellent cooperation that made this report possible.

The mention in this report of any commercial product does not imply its endorsement by MSU-ES, MAFES, or USDA over other products not named nor does the omission imply they are not satisfactory.

2021 Budget Committees

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Cotton

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2021 Planning Budgets

Budgets for Agricultural Enterprises

This publication provides economic and technical information in the form of enterprise budgets for a major crop produced by Mississippi farmers. A multidisciplinary approach involving researchers and extension personnel was used to determine production practices and input quantities, and to estimate costs and returns for each enterprise (14). The purpose of this section is to present the methods and procedures used to calculate costs and returns for each budget included in this publication.

Enterprise budgets represent a type of information that can be used by a wide variety of individuals in making decisions in the food and fiber industry. They are used:

- by farmers for planning,
- by extension personnel in providing educational programs to farmers,
- by lenders as a basis for credit,
- to provide basic data for research, and
- to inform non-farmers of the costs incurred by farmers in the production of food and fiber crops.

A budget should be prepared with a specific objective in mind. The budgets in this report were prepared to provide general information for several different uses. They provide information concerning general levels of costs and returns which will need to be adjusted for specific situations. Most users should think of these budgets as a first approximation and then make appropriate adjustments using the "Your Farm" column provided on each budget to add, delete, or change costs or incomes to reflect their specific situations.

Methods and Procedures

Production Practices

The production practices listed in each budget are the result of a combined effort by researchers and extension personnel to represent those practices that producers could use in a specific production system. Producers might use different practices in their own operations. If different types and quantities of operating inputs are to be used, then the budgeted expenses should be changed to more accurately reflect actual input usage.

Committees made up of appropriate disciplines from the Mississippi Agricultural and Forestry Experiment Station, the Mississippi State University Extension Service, and the U.S. Department of Agriculture review and update the practices in the budgets every year. The updates are based on the collective judgment of the committee members. Quantities of materials and individual production practices budgeted are based on generally accepted recommendations by committee members.

Machinery

Machinery manufacturers form the basis for machinery prices used in these publications. Prices by size of equipment are determined from the most common sales in each category as reported by machinery dealers. Prices used in the budgets reflect prices paid by farmers in 2020. (Appendix Tables 1, 2, and 3).

A performance rate reflects the time required to perform a given task or operation and is expressed as that part of an hour per acre. Previous studies and expert knowledge of the equipment committee members are used to estimate performance rates for new and larger equipment (1, 4, 5, 6, 7, 9, and 13).

The hours of annual use have been modified based on information collected from the cited studies (3, 4, 6, and 7).

Repairs and maintenance as a percentage of new cost are estimated for the life of the equipment and include oil and lubricants (1, 4, and 6).

Estimates of Direct Costs

Direct costs include estimated costs of repairs and maintenance (R&M) for all machinery and include fuel costs for powered machinery (Appendix Tables 1, 2, and 3). Direct costs are estimated on an hourly basis and are then converted to a per-acre basis using the performance rate for the particular operation. R&M costs for towed equipment and powered equipment are estimated as follows:

$$RPH = \underbrace{RLC \ x \ RP}_{THL}$$

RPA = RPH x PR

where:

RPH = R&M cost per hour of use

RLC = Replacement cost of machine

RP = R&M percentage (percent of RLC)

THL = Total hours of machine life

RPA = R&M cost per acre

PR = Performance rate

Direct costs include an estimate of fuel cost based on average fuel consumption per hour of use for the power unit. Other components of direct costs include quantities of materials used in production multiplied by the price per unit of these inputs, custom rates, hourly wage rates, and interest charges on operating capital (Appendix Tables 4, 5, and 6).

The labor wage rate per hour includes social security, accident and unemployment insurance, and some perquisites (11). Labor costs are estimated for four labor categories: operator labor, hand labor, irrigation labor, and unallocated labor. Operator labor and hand labor represent estimates of labor required to

perform the in-field tasks. Operator labor is that labor required to operate all power-driven equipment. Irrigation labor is used to perform tasks associated with an irrigation system. Unallocated labor is an estimate of labor that is not used directly in producing the enterprise. Its cost is estimated as a percentage of operator labor (11). The percentages used for the various crop enterprises are listed in Appendix Table 6.

Interest on operating capital is determined by using a short-term interest rate obtained from agricultural lenders and making a charge against capital outflows as the production process takes place. Interest is accumulated until the crop is harvested.

Estimates of Fixed Costs

Annual fixed cost estimates for machinery are based on a budgeting technique which computes the annual capital recovery charge (2, p. 143). When a combination of machines or equipment is required to perform a single operation, the total cost per acre for all equipment used in the operation is estimated. The fixed cost of machinery ownership is calculated by first computing the capital recovery factor and then using it to estimate the annual capital recovery charge.

$$CRF = \frac{IIR}{-TYL}$$

$$1 - (1 + IIR)$$

where:

CRF = Capital recovery factor

IIR = Intermediate-term interest rate

TYL = Total years of life

$$CRCPY = [(RLC - SV) x CRF] + (SV x IIR)$$

where:

CRCPY = Capital recovery charge per year

RLC = Replacement cost

SV = Salvage value (at end of useful life)

This value is then converted to its per-hour and per-acre equivalent values:

$CRCPH = \frac{CRCPY}{HAU}$

CRCPA = CRCPH x PR

where:

CRCPH = Capital recovery charge per hour HAU = Hours of annual use CRCPA = Capital recovery charge per acre PR = Performance rate

Estimates of Returns

It is difficult to estimate crop yields that may be expected for a particular production system in a given year. Crop yields used in the budgets are representative of historical yields modified to match the production system used to produce the yield. All yields including conventional, no-tillage, irrigation, and double-cropping are tempered with unpublished research and judgments of the commodity committees. Producers should use yield estimates that are reflective of their own operation.

To estimate returns, a price for the commodity must be used. Individual producers must determine their own expected price for the commodity. Commodity prices used in this report represent the higher of a calculated forward contract price or the loan rate that was applicable for the 2020 crop year. Government payments for commodities are not included in the budgets except to the extent that they are included in loan rates.

The futures price for an appropriate contract month is determined by averaging the closing prices for the first five trading days in October. The basis is determined by subtracting the average daily cash price for the month of October from the average daily closing price of the specified harvest month futures contract. These average futures prices and the basis adjustments are presented in Appendix Table 7.

A special table is presented to illustrate the effects of alternative levels of yields and prices on net returns. The budgeted yield and the budgeted price are used as base values (100 percent). Yields are then varied from 50 to 150 percent of the base yield while prices are varied from 75 to 125 percent of the base price. Net returns are computed for each combination of yield and price.

Irrigation Costs

Estimated costs of various irrigation systems are presented in Appendix Tables 8 through 18. A dryland crop budget may be converted to an irrigated crop budget by adding the appropriate direct and fixed costs to the costs of the dryland crop. Also, adjustments in crop yields and other costs may be required with the addition of supplemental irrigation.

Net Returns

Net returns are generally considered to be the amount left after subtracting all costs from all incomes for a particular enterprise. In these budgets, "RETURNS ABOVE DIRECT EXPENSES" and "RETURNS ABOVE TOTAL SPECIFIED EXPENSES" are used as a proxy for the economic concepts of net returns above variable costs and net returns above variable plus fixed costs, respectively. Some items are intentionally left out of these calculations, i.e., costs for land or land rent, taxes, insurance premiums, general farm overhead, and expected incomes from government payments or insurance payments. These costs and incomes vary widely among farms and farm situations so as to make routine calculation for representative situations impractical. These items should, however, be considered by each producer and factored into the final budget each producer develops for his own situation.



Table 1.A Estimated costs per acre Cotton, 12R-38" solid, conservation tillage B3XF/W3FE variety, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (3 gal)	appl appl	7.00 5.50	2.5000 5.2500	17.50 28.88	
HARVĒST AIDS Thidiazuron 41b	oz	1.49	2.3000	3.43	
Ethephon 6E Tribufos 61b	pt pt	4.00 10.21	2.3125	9.25 5.11	
GINNING Gin & Haul	lb	0.11	1200.0000	132.00	
FERTILIZERS					
Potash (60% K20) UAN (32%) FUNGICIDES	cwt gal	22.11 1.34	1.5000 34.3582	33.17 46.04	
Cotton Seed Trt. HERBICIDES	acre	20.00	1.0000	20.00	
Clarity Glyphosate 31bs a.e	pt oz	10.73 0.13	0.5000 32.0000	5.37 4.16	
Select Max	pt	12.74	1.0000	12.74	
Gramoxone SL 2.0 Cotoran	oz pt	0.19 6.01	48.0000 2.0000	9.12 12.02	
Dual Magnum Liberty 280	pt	13.33 0.44	1.0000 58.0000	13.33 25.52	
Warrant	oz pt	4.39	3.0000	13.17	
INSECTICIDES Acephate 90%	lb	6.94	1.7500	12.15	
Bidrin 8EC	ΟZ	1.16	5.2000	6.03	
Centric 40WG Diamond .83EC	OZ OZ	5.08 1.28	2.0000 6.0000	10.16 7.68	
Imidacloprid 4F	ΟZ	1.31	2.0000	2.62	
Bifenthrin Lambda	oz oz	0.94 0.95	12.8000 1.0000	12.03 0.95	
IncidentalPestTrt\$15 Transform WG	acre oz	15.00 7.35	1.0000	15.00 11.02	
SEED/PLANTS					
Cot. Seed B3XF/W3FE GROWTH REGULATORS	thous	2.58	45.0000	116.10	
Mepiquat Chloride ADJUVANTS	OZ	0.06	48.0000	2.88	
Surfactant CUSTOM FERTILIZE	pt	3.30	0.4000	1.32	
Custom Apply Fert	acre	7.50	1.0000	7.50	
ERADICATION FEE Eradication	acre	1.00	1.0000	1.00	
CUSTOM LIME Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSULTANT Cotton Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.3993	5.86	
Self-Propelled HAND LABOR	hour	14.68	0.2075	3.04	
Implements Self-Propelled	hour hour	9.06 9.06	0.1235 0.1899	1.11 1.71	
UNALLOCATED LABOR	hour	14.68	0.4855	7.13	
DIESEL FUEL Tractors	gal	1.53	4.6248	7.08	
Self-Propelled REPAIR & MAINTENANCE	gal	1.53	4.8836	7.47	
Implements	acre	7.40	1.0000	7.40	
Tractors Self-Propelled	acre acre	2.91 22.33	1.0000 1.0000	2.91 22.33	
INTEREST ON OP. CAP.	acre	11.78	1.0000	11.78	
TOTAL DIRECT EXPENSES FIXED EXPENSES				718.02	
Implements Tractors	acre acre	10.22 17.71	1.0000	10.22 17.71	
Self-Propelled	acre	87.04	1.0000	87.04	
TOTAL FIXED EXPENSES				114.97	
TOTAL SPECIFIED EXPENSES				832.99	
TOTAL SILCHTED ENTENSES				002.09	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

Table 1.B Summary of estimated costs and returns per acre Cotton, 12R-38" solid, conservation tillage B3XF/W3FE variety, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Cotton Lint	lb		1200.0000		
Cotton Seed	lb	0.08	1620.0000	129.60	
TOTAL INCOME				902.64	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	46.38	1.0000	46.38	
HARVEST AIDS	acre	17.79	1.0000	17.79	
GINNING	acre	132.00	1.0000	132.00	
FERTILIZERS	acre	79.21	1.0000	79.21	
FUNGICIDES	acre	20.00	1.0000	20.00	
HERBICIDES	acre	95.43	1.0000	95.43	
INSECTICIDES	acre	77.66	1.0000	77.66	
SEED/PLANTS	acre	116.10	1.0000	116.10	
GROWTH REGULATORS	acre	2.88	1.0000	2.88	
ADJUVANTS	acre	1.32	1.0000	1.32	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
ERADICATION FEE	acre	1.00	1.0000	1.00	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3135	2.82	
OPERATOR LABOR	hour	14.68	0.6069	8.90	
UNALLOCATED LABOR	hour	14.68	0.4855	7.13	
DIESEL FUEL	gal	1.53	9.5084	14.55	
REPAIR & MAINTENANCE	acre			32.64	
INTEREST ON OP. CAP.	acre	11.78	1.0000	11.78	
TOTAL DIRECT EXPENSES				718.02	
RETURNS ABOVE DIRECT EXE	PENSES			184.62	
TOTAL FIXED EXPENSES				114.97	
TOTAL SPECIFIED EXPENSES	S			832.99	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		69.65	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 1.C Estimated resource use for field operations, per acre Cotton, 12R-38" solid, conservation tillage B3XF/W3FE variety, Delta Area, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE		TIMES OVER	МТН	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.6660				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Potash (60% K20)	CWt	MEMD 225	0 0 6 3	1 00	Morr	1.5000	0.05	0 0 5	0.05	0.04
Bed-Subsoil Fold Bed/Disk (Hipper)	12R-38 12R-38	MFWD 225 MFWD 225	0.053	1.00	Nov Nov		0.03	0.05	0.03	0.04
App by Air (5 gal)	appl	III ND 220	0.013	1.00	Mar	1.0000	0.02	0.02	0.02	0.01
Clarity	pt					0.5000				
Glyphosate 31bs a.e	OZ					32.0000				
Select Max	pt					1.0000				
Surfactant Fert Appl (Liquid)	pt 12R-38	MFWD 225	0.051	1 00	Apr	0.2000	0.05	0.05	0.07	0.04
UAN (32%)	gal	FIFWD 225	0.031	1.00	Thr	17.1791	0.05	0.03	0.07	0.04
Row Cond Folding	38'	MFWD 225	0.040	1.00	May	17.1731	0.04	0.04	0.04	0.03
Plant - Folding	12R-38	MFWD 225	0.049	1.00	May		0.04	0.04	0.09	0.03
Cot. Seed B3XF/W3FE	thous					45.0000				
Cotton Seed Trt.	acre		0 011	1 00		1.0000		0 01	0 01	0 00
Sprayer 600-825gal Gramoxone SL 2.0	90' 250hp		0.011	1.00	Мау	48.0000		0.01	0.01	0.00
Cotoran	oz pt					2.0000				
Surfactant	pt					0.2000				
Cotton Consultant	acre			1.00	May	1.0000				
Eradication	acre					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May	1 0000		0.01	0.01	0.00
Dual Magnum Liberty 280	pt oz					1.0000				
Acephate 90%	lb					0.2500				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jun	0.2000		0.01	0.01	0.00
Bidrin 8EC	OZ					3.2000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Jun	17.1791	0.05	0.05	0.07	0.04
UAN (32%) Spray (Direct/Layby)	gal 12R-38	MFWD 225	0.044	1.00	Jun	17.1791	0.04	0.04	0.06	0.03
Warrant	pt					3.0000				
Liberty 280	OZ					29.0000				
Mepiquat Chloride	ΟZ					16.0000				
Centric 40WG	OZ			1 00	T., 1	2.0000				
App by Air (3 gal) Diamond .83EC	appl oz			1.00	Jul	1.0000				
Imidacloprid 4F	OZ					2.0000				
Mepiquat Chloride	OZ					16.0000				
App by Air (3 gal)	appl			1.00	Jul	1.0000				
Acephate 90%	lb					0.7500				
Mepiquat Chloride	OZ					16.0000				
Bifenthrin App by Air (3 gal)	oz appl			0.25	Jul	6.4000 0.2500				
Lambda	OZ			0.25	our	1.0000				
Bidrin 8EC	OZ					2.0000				
Incidental Pest				1.00	Jul					
App by Air (3 gal)	appl					1.0000				
IncidentalPestTrt\$15	acre			1.00	7~	1.0000				
App by Air (3 gal) Acephate 90%	appl lb			1.00	Aug	1.0000				
Bifenthrin	OZ					6.4000				
App by Air (3 gal)	appl			1.00	Aug	1.0000				
Transform WG	OZ					1.5000				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Thidiazuron 41b Ethephon 6E	OZ n+					2.3000				
App by Air (5 gal)	pt appl			0.50	Sep	0.5000				
Tribufos 61b	pt					0.5000				
Ethephon 6E	pt					0.3125				
Cotton Picker/Module	6R-38 (500)		0.172	1.00	Oct	4000		0.17	0.34	0.13
Gin & Haul Stalk Shredder-Flail	1b 20'	MFWD 225	U U83	1.00	Oct Oct	1200.0000	0.08	0.08	0.08	0.06
Stark Silleddet-Light	20	MEWD ZZJ	0.002	1.00	UCL					
TOTALS							0.60	0.39	0.92	0.48

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 1.D Estimated costs for field operations, per acre Cotton, 12R-38" solid, conservation tillage B3XF/W3FE variety, Delta Area, Mississippi, 2021

Lime (Spread) Custom Apply Fert Potash (60% K20) Bed-Subsoil Fold Bed/Disk (Hipper) App by Air (5 gal) Clarity Glyphosate 3lbs a.e Select Max Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran	pt 12R-38 gal	3.33 31.60 7.50 33.17 7.00 5.37 4.16 12.74 0.66			1.42		0.13 1.26 0.30 1.33 0.16 0.06 0.19	3.46 32.86 7.80 34.50 4.24	4.59	3.46 32.86 7.80 34.50
Lime (Spread) Custom Apply Fert Potash (60% K20) Bed-Subsoil Fold Bed/Disk (Hipper) App by Air (5 gal) Clarity Glyphosate 3lbs a.e Select Max Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	ton acre cwt 12R-38 12R-38 appl pt oz pt pt 12R-38 gal	31.60 7.50 33.17 7.00 5.37 4.16 12.74 0.66	0.44				1.26 0.30 1.33 0.16 0.06 0.19	32.86 7.80 34.50 4.24 1.65	4.59	32.86 7.80 34.50
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	7.50 33.17 7.00 5.37 4.16 12.74 0.66	0.44				0.30 1.33 0.16 0.06 0.19	7.80 34.50 4.24 1.65	4.59	7.80 34.50
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	7.00 5.37 4.16 12.74 0.66	0.44				1.33 0.16 0.06 0.19	34.50 4.24 1.65	4.59	34.50
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	7.00 5.37 4.16 12.74 0.66	0.44				0.16 0.06 0.19	4.24 1.65	4.59	
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	5.37 4.16 12.74 0.66 23.02	0.44				0.06 0.19	1.65		8.83
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	5.37 4.16 12.74 0.66 23.02		0.30	0.03		0.19		1.00	3.55
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	5.37 4.16 12.74 0.66 23.02	0.92					, 19		7.19
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	4.16 12.74 0.66 23.02	0.92				0.14	5.51		5.51
Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding Plant - Folding Cot. Seed B3XF/W3FE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal	12.74 0.66 23.02	0.92				0.11	4.27		4.27
Cott. Seed BSAF/WSFE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt 12R-38 gal 38' 12R-38 thous acre 90' 250hp	0.66	0.92				0.34	13.08		13.08
Cott. Seed BSAF/WSFE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	12R-38 gal 38' 12R-38 thous acre 90' 250hp	23.02	0.92				0.02	0.68		0.68
Cott. Seed BSAF/WSFE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	gal 38' 12R-38 thous acre 90' 250hp	23.02		1.05	1.60		0.08	3.65	3.01	6.66
Cott. Seed BSAF/WSFE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	12R-38 thous acre 90' 250hp		0 70	0 50	1 00		0.54			23.56
Cott. Seed BSAF/WSFE Cotton Seed Trt. Sprayer 600-825gal Gramoxone SL 2.0 Cotoran Surfactant Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	thous acre 90' 250hp		0.72	0.58	1.08		0.05 0.09	2.43 4.64		5.40 9.70
Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	acre 90' 250hp	116 10	0.88	1.91	1.76			118.42	5.06	118.42
Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	90' 250hp	20.00					0.40	20.40		20.40
Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)			0.23	0.20	0.36		0.02	0.81		2.10
Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	OZ	9.12					0.18	9.30		9.30
Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt	12.02					0.24	12.26		12.26
Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%)	pt	0.66					0.01	0.67		0.67
Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	acre	8.00					0.16	8.16		8.16
Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	acre	1.00	0 00	0 00	0 26		0.02	1.02	1 00	1.02
Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	90' 250np	12 22	0.23	0.20	0.36		0.02	0.81	1.29	2.10
Acephate 90% Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	Pt O7	12.33					0.27 0.26	13.60 13.02		13.60 13.02
Sprayer 600-825gal Bidrin 8EC Fert Appl (Liquid) UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	1h	1.74					0.03	1.77		1.77
Bidrin 8EC Fert Appl (Liquid) UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	90' 250hp		0.23	0.20	0.36		0.01	0.80	1.29	
Fert Appl (Liquid) UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	OZ	3.71					0.06	3.77		3.77
UAN (32%) Spray (Direct/Layby) Warrant Liberty 280	12R-38		0.92	1.05	1.60		0.06	3.63	3.01	6.64
Spray (Direct/Layby) Warrant Liberty 280	gal	23.02					0.38	23.40		23.40
Warrant Liberty 280	12R-38		0.79	0.72	1.37		0.05	2.93	2.45	
TIDELLY ZOO	pt 0.7	13.17 12.76					0.22 0.21	13.39 12.97		13.39 12.97
Meniquat Chloride	02	0.96					0.02	0.98		0.98
Centric 40WG	OZ.	10.16					0.17	10.33		10.33
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
Diamond .83EC	OZ	7.68					0.10	7.78		7.78
Imidacloprid 4F	OZ	2.62					0.03	2.65		2.65
Mepiquat Chloride	OZ	0.96					0.01	0.97		0.97
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
Meniquat Chloride	10	5.21 0.96					0.07 0.01	5.28 0.97		5.28 0.97
Rifenthrin	02	6.02					0.01	6.10		6.10
App by Air (3 gal)	appl	1.38					0.02	1.40		1.40
Lambda	OZ	0.95					0.01	0.96		0.96
Bidrin 8EC	OZ	2.32					0.03	2.35		2.35
App by Air (3 gal) IncidentalPestTrt\$15	appl	5.50					0.07	5.57		5.57
IncidentalPestTrt\$15		15.00					0.20	15.20		15.20
App by Air (3 gal) Acephate 90%	appl lb	5.50 5.21					0.06 0.05	5.56 5.26		5.56 5.26
Bifenthrin	OZ	6.02					0.03	6.08		6.08
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Transform WG	OZ	11.02					0.11	11.13		11.13
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Thidiazuron 4lb	OZ	3.43					0.02	3.45		3.45
Ethephon 6E	рţ	8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	3.50					0.02	3.52		3.52
Tribufos 61b	pt n+	5.11					0.03	5.14		5.14
Ethephon 6E Cotton Picker/Module	pt 6R-38(500)	1.25	6.78	21.73	6.11		0.01 0.12	1.26 34.74	83.17	1.26 117.91
Gin & Haul	1b	132.00	0.70	21.10	0.11		0.12	132.44	00.11	132.44
Stalk Shredder-Flail	-~	102.00	1.46	2.79	2.18		0.02	6.45	4.94	11.39
	20'									
TOTALS	20'	640.20	14.55	32.64	18.85	0.00		718.02	114.97	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 1.E Estimated monthly income and expense flows per acre Cotton, 12R-38" solid, conservation tillage B3XF/W3FE variety, Delta Area, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
·						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	902.64
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	17.88	11.00	10.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.79	0.00
GINNING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.00
FERTILIZERS	33.17	0.00	0.00	0.00	0.00	23.02	0.00	23.02	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	47.23	25.93	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	1.74	13.87	39.80	22.25	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	116.10	0.00	0.00	0.00	0.00	0.00
GROWTH REGULATORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	1.92	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERADICATION FEE	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.07	0.00	0.00	0.00	0.00	1.60	3.56	3.33	0.00	0.00	0.00	8.29
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.39	0.00	0.00	0.00	0.00	0.92	2.06	1.94	0.00	0.00	0.00	8.24
REPAIR & MAINTENANCE	2.21	0.00	0.00	0.00	0.00	1.05	2.89	1.97	0.00	0.00	0.00	24.52
INTEREST ON OP. CAP.	3.24	0.00	0.00	0.00	0.80	0.62	4.07	1.18	0.77	0.34	0.18	0.58
TOTAL DIRECT EXPENSES	84.51	0.00	0.00	0.00	30.73	27.21	207.31	72.20	60.37	33.59	28.47	173.63
NET INCOME	-84.51	0.00	0.00	0.00	-30.73	-27.21	-207.31	-72.20	-60.37	-33.59	-28.47	729.01
NET INCOME TO DATE	-84.51	-84.51	-84.51	-84.51	-115.24	-142.45	-349.76	-421.96	-482.33	-515.92	-544.39	184.62

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

^{*} Lease costs are based on hourly usage costs.

Table 1.F Estimated returns for various price/yield combinations, per acre Cotton, 12R-38" solid, conservation tillage B3XF/W3FE variety, Delta Area, Mississippi, 2021

		-	PERCENT										
PRODUC	T		75	80	85	90	95	100 ODUCT PRI	105	110	115	120	125
Cotton	Lint		0.48	0.51	0.54	0.57	0.61	0.64	0.67	0.70	0.74	0.77	0.80
PERCEN	T YIELD	UNIT -					d	ollars					
50	600.00	lb	-232 -347	-212 -327	-193 -308	-174 -289	-155 -269	-135 -250	-116 -231	-97 -211	-77 -192	-58 -173	-39 -154
60	720.00	lb	-187 -302	-164 -279	-141 -256	-118 -232	-94 -209	-71 -186	-48 -163	-25 -140	-2 -117	21 -93	44 -70
70	840.00	lb	-142 -257	-115 -230	-88 -203	-61 -176	-34 -149	-7 -122	19 - 95	46 -68	73 -41	100 -14	127 12
80	960.00	lb	-98 -213	-67 -182	-36 -151	-5 -120	25 -89	56 -58	87 -27	118 3	149 34	180 65	211 96
90	1080.00	lb	-53 -168	-18 -133	16 -98	50 -63	85 -29	120 5	155 40	190 75	224 109	259 144	294 179
100	1200.00	lb	-8 -123	30 -84	68 -46	107 -7	145 30	184 69	223 108	261 146	300 185	339 224	377 262
110	1320.00	lb	36 -78	78 -36	121 6	163 48	206 91	248 133	291 176	333 218	376 261	418 303	461 346
120	1440.00	lb	80 -34	127 12	173 58	219 105	266 151	312 197	359 244	405 290	451 336	498 383	544 429
130	1560.00	lb	125 10	175 60	226 111	276 161	326 211	376 261	427 312	477 362	527 412	577 462	628 513
140	1680.00	lb	170 55	224 109	278 163	332 217	386 271	440 325	494 380	549 434	603 488	657 542	711 596
150	1800.00	lb	215 100	273 158	330 216	388 273	446 331	504 389	562 447	620 505	678 563	736 621	794 679

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 2.A Estimated costs per acre Cotton, 12R-38" solid, conserv. tillage, furrow irr., B3XF/W3FE variety, 10.5 ac-in., Delta Area, Mississippi, 2021

B3XF/W3FE var.	iety, : UNIT	10.5 ac-in PRICE	., Delta Ar QUANTITY		sippi, 2021 YOUR FARM
		dollars		dollars	
DIRECT EXPENSES		uollais		dollars	
CUSTOM SPRAY App by Air (5 gal)	appl	7.00	2.5000	17.50	
App by Air (3 gal) HARVEST AIDS	appl	5.50	5.7500	31.63	
Thidiazuron 41b Ethephon 6E	oz pt	1.49	2.3000 2.3125	3.43 9.25	
Tribufos 61b GINNING	pt	10.21	0.5000	5.11	
Gin & Haul FERTILIZERS	lb	0.11	1500.0000	165.00	
Potash (60% K20) UAN (32%) FUNGICIDES	cwt gal	22.11 1.34	1.5000 34.3582	33.17 46.04	
Cotton Seed Trt. HERBICIDES	acre	20.00	1.0000	20.00	
Clarity Glyphosate 31bs a.e	pt oz	10.73 0.13	0.5000 32.0000	5.37 4.16	
Select Max	pt	12.74	1.0000	12.74	
Gramoxone SL 2.0 Cotoran	oz pt	0.19 6.01	2.0000	9.12 12.02	
Dual Magnum Liberty 280	pt oz	13.33	1.0000	13.33 25.52	
Warrant INSECTICIDES	pt	4.39	3.0000	13.17	
Acephate 90% Bidrin 8EC	lb oz	6.94 1.16	1.7500 5.2000	12.15 6.03	
Diamond .83EC Imidacloprid 4F	oz oz	1.28 1.31	6.0000 2.0000	7.68 2.62	
Centric 40WG Bifenthrin	OZ OZ	5.08 0.94	2.0000 12.8000	10.16 12.03	
Lambda IncidentalPestTrt\$15	ΟZ	0.95 15.00	1.0000 1.5000	0.95 22.50	
Transform WG IRRIGATION SUPPLIES	OZ	7.35	1.5000	11.02	
Roll-Out Pipe	ft	0.24	33.0000	7.92	
SEED/PLANTS Cot. Seed B3XF/W3FE	thous	2.58	45.0000	116.10	
GROWTH REGULATORS Mepiquat Chloride	ΟZ	0.06	51.0000	3.06	
ADJUVANTS Surfactant	pt	3.30	0.4000	1.32	
CUSTOM FERTILIZE Custom Apply Fert	acre	7.50	1.0000	7.50	
ERADICATION FEE Eradication	acre	1.00	1.0000	1.00	
CUSTOM LIME Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSŪLTANT Cotton Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.5025	7.38	
Self-Propelled IRRIGATE LABOR	hour	14.68	0.2075	3.04	
Special Labor Implements HAND LABOR	hour hour	9.06 9.06	0.3000 0.0625	2.73 0.57	
Implements Self-Propelled	hour hour	9.06 9.06	0.1235 0.1899	1.11 1.71	
UNALLOCATEĎ LABOR	hour		0.5052	7.42	
DIESEL FUEL Tractors	gal	1.53	5.6368	8.63	
Self-Propelled Roll-Out Pipe Irr.	gal gal	1.53 1.53	4.8836 8.5535	7.47 13.08	
REPAIR & MAINTENANCE Implements	acre	7.90	1.0000	7.90	
Tractors Self-Propelled	acre acre	3.52 22.33	1.0000	3.52 22.33	
Roll-Out Pipe Irr. INTEREST ON OP. CAP.	acre acre		1.0000	7.16 12.46	
TOTAL DIRECT EXPENSES				798.06	
FIXED EXPENSES Implements	acre	12.27	1.0000	12.27	
Tractors	acre acre	21.45	1.0000	21.45 87.04	
Roll-Out Pipe Irr.			1.0000	51.84	
TOTAL FIXED EXPENSES				172.60	
TOTAL SPECIFIED EXPENSES				970.66	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

Table 2.B Summary of estimated costs and returns per acre Cotton, 12R-38" solid, conserv. tillage, furrow irr., B3XF/W3FE variety, 10.5 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Cotton Lint	lb		1500.0000		
Cotton Seed	lb	0.08	2025.0000	162.00	
TOTAL INCOME				1128.30	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	49.13	1.0000	49.13	
HARVEST AIDS	acre	17.79	1.0000	17.79	
GINNING	acre	165.00	1.0000	165.00	
FERTILIZERS	acre	79.21	1.0000	79.21	
FUNGICIDES	acre	20.00	1.0000	20.00	
HERBICIDES	acre	95.43	1.0000	95.43	
INSECTICIDES	acre	85.16	1.0000	85.16	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	116.10	1.0000	116.10	
GROWTH REGULATORS	acre	3.06	1.0000	3.06	
ADJUVANTS	acre	1.32	1.0000	1.32	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
ERADICATION FEE	acre	1.00	1.0000	1.00	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3135	2.82	
IRRIGATE LABOR	hour	9.06	0.3625	3.30	
OPERATOR LABOR	hour	14.68	0.7101	10.42	
UNALLOCATED LABOR	hour	14.68	0.5052	7.42	
DIESEL FUEL	gal	1.53	19.0740	29.18	
REPAIR & MAINTENANCE		40.91	1.0000	40.91	
INTEREST ON OP. CAP.	acre	12.46	1.0000	12.46	
TOTAL DIRECT EXPENSES				798.06	
RETURNS ABOVE DIRECT EXE	PENSES			330.24	
TOTAL FIXED EXPENSES				172.60	
MOMAI ODECTETED EXPENSES	,			070 66	
TOTAL SPECIFIED EXPENSES		EVDENCEC		970.66	
RETURNS ABOVE TOTAL SPEC	TETED	EXPENSES		157.64	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 2.C Estimated resource use for field operations, per acre Cotton, 12R-38" solid, conserv. tillage, furrow irr., B3XF/W3FE variety, 10.5 ac-in., Delta Area, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.6660				
Custom Apply Fert Potash (60% K20)	acre			1.00	Nov	1.0000				
Bed-Subsoil Fold	cwt 12R-38	MFWD 225	0.053	1.00	Nov	1.3000	0.05	0.05	0.05	0.04
Bed/Disk (Hipper)	12R-38	MFWD 225	0.049		Nov		0.04	0.04	0.04	0.03
App by Air (5 gal)	appl			1.00	Mar	1.0000				
Clarity	pt					0.5000				
Glyphosate 3lbs a.e Select Max	oz pt					32.0000 1.0000				
Surfactant	pt					0.2000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Apr		0.05	0.05	0.07	0.04
UAN (32%)	gal	14FFFF 00F	0 0 1 0	1 00		17.1791	0 04	0 04	0 0 4	0 00
Row Cond Folding	38'	MFWD 225	0.040	1.00	May		0.04	0.04	0.04	0.03
Plant - Folding Cot. Seed B3XF/W3FE	12R-38 thous	MFWD 225	0.049	1.00	Мау	45.0000	0.04	0.04	0.09	0.03
Cotton Seed Trt.	acre					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.00
Gramoxone SL 2.0	OZ					48.0000				
Cotoran	pt n+					2.0000				
Surfactant Cotton Consultant	pt acre			1.00	May	0.2000 1.0000				
Eradication	acre			1.00	1100 1	1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.00
Dual Magnum	pt					1.0000				
Liberty 280	OZ 1b					29.0000				
Acephate 90% Sprayer 600-825gal	lb 90' 250hp		0.011	1.00	Jun	0.2500		0.01	0.01	0.00
Bidrin 8EC	OZ		0.011	1.00	oun	3.2000		0.01	0.01	0.00
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Jun		0.05	0.05	0.07	0.04
UAN (32%)	gal			1 00	- 1	17.1791				
App by Air (3 gal) Diamond .83EC	appl oz			1.00	Jul	1.0000				
Imidacloprid 4F	OZ					2.0000				
Mepiquat Chloride	OZ					16.0000				
Spray (Direct/Layby)	12R-38	MFWD 225	0.044	1.00	Jul		0.04	0.04	0.06	0.03
Warrant	pt					3.0000				
Liberty 280 Mepiquat Chloride	OZ OZ					19.0000				
Centric 40WG	oz					2.0000				
App by Air (3 gal)	appl			1.00	Jul	1.0000				
Acephate 90%	lb					0.7500				
Mepiquat Chloride Bifenthrin	OZ OZ					16.0000 6.4000				
App by Air (3 gal)	appl			0.25	Jul	0.2500				
Lambda	OZ					1.0000				
Bidrin 8EC	OZ					2.0000				
Incidental Pest App by Air (3 gal)	annl			1.50	Jul	1.5000				
IncidentalPestTrt\$15	appl acre					1.5000				
App by Air (3 gal)	appl			1.00	Aug	1.0000				
Acephate 90%	lb				_	0.7500				
Bifenthrin	OZ				_	6.4000				
App by Air (3 gal) Transform WG	appl			1.00	Aug	1.0000 1.5000				
App by Air (5 gal)	oz appl			1.00	Sep	1.0000				
Thidiazuron 41b	OZ					2.3000				
Ethephon 6E	pt					2.0000				
App by Air (5 gal)	appl			0.50	Sep	0.5000				
Tribufos 61b Ethephon 6E	pt pt					0.5000 0.3125				
Cotton Picker/Module	6R-38 (500)		0.172	1.00	Oct	0.0120		0.17	0.34	0.13
Gin & Haul	lb			1.00	Oct	1500.0000				
Stalk Shredder-Flail	20'	MFWD 225	0.082	1.00	Oct	1 0000	0.08	0.08	0.08	0.06
Roll-Out Pipe Irr.	acre				Jan	1.0000	0.07	0.07	0.44	
TOTALS							0.71	0.50	1.38	0.50
							•			

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

Table 2.D Estimated costs for field operations, per acre Cotton, 12R-38" solid, conserv. tillage, furrow irr., B3XF/W3FE variety, 10.5 ac-in., Delta Area, Mississippi, 2021

	SIZE/								FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	31.60					1.26	32.86		32.86
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Potash (60% K20)	cwt	33.17					1.33	34.50		34.50
Bed-Subsoil Fold	12R-38	33.17	0.95	1.71	1.42		0.16	4.24	4.59	8.83
	12R-38		0.87	0.99	1.30		0.13	3.29	3.81	7.10
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Clarity	pt	5.37					0.14	5.51		5.51
Glyphosate 31bs a.e		4.16					0.11	4.27		4.27
Select Max	pt	12.74					0.34	13.08		13.08
Surfactant	pt	0.66					0.02	0.68		0.68
Fert Appl (Liquid)	12R-38		0.92	1.05	1.60		0.08	3.65	3.01	6.66
UAN (32%)	gal	23.02					0.54	23.56		23.56
2	38'		0.72	0.58	1.08		0.05	2.43	2.97	5.40
Plant - Folding	12R-38		0.88	1.91	1.76		0.09	4.64	5.06	9.70
Cot. Seed B3XF/W3FE		116.10					2.32	118.42		118.42
Cotton Seed Trt.	acre	20.00					0.40	20.40		20.40
Sprayer 600-825gal	_		0.23	0.20	0.36		0.02	0.81	1.29	2.10
	OZ	9.12					0.18	9.30		9.30
Cotoran	pt	12.02					0.24	12.26		12.26
Surfactant	pt	0.66					0.01	0.67		0.67
Cotton Consultant Eradication	acre	8.00 1.00					0.16 0.02	8.16 1.02		8.16 1.02
Sprayer 600-825gal	acre 90' 250hp		0.23	0.20	0.36		0.02	0.81	1.29	2.10
	pt 25011p	13.33	0.23	0.20	0.30		0.02	13.60	1.29	13.60
Liberty 280	OZ	12.76					0.26	13.02		13.02
Acephate 90%	lb	1.74					0.03	1.77		1.77
Sprayer 600-825gal			0.23	0.20	0.36		0.01	0.80	1.29	2.09
Bidrin 8EC	OZ	3.71					0.06	3.77		3.77
Fert Appl (Liquid)	12R-38		0.92	1.05	1.60		0.06	3.63	3.01	6.64
UAN (32%)	gal	23.02					0.38	23.40		23.40
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
Diamond .83EC	ΟZ	7.68					0.10	7.78		7.78
Imidacloprid 4F	OZ	2.62					0.03	2.65		2.65
Mepiquat Chloride	ΟZ	0.96					0.01	0.97		0.97
Spray (Direct/Layby)	12R-38		0.79	0.72	1.37		0.04	2.92	2.45	5.37
Warrant	pt	13.17					0.18	13.35		13.35
Liberty 280	OZ	12.76					0.17	12.93		12.93
Mepiquat Chloride	OZ	1.14					0.02	1.16		1.16
Centric 40WG	OZ appl	10.16 5.50					0.14	10.30 5.57		10.30 5.57
App by Air (3 gal) Acephate 90%	appl lb	5.21					0.07	5.28		5.28
Mepiquat Chloride	OZ	0.96					0.01	0.97		0.97
Bifenthrin	OZ	6.02					0.08	6.10		6.10
App by Air (3 gal)	appl	1.38					0.02	1.40		1.40
Lambda	OZ	0.95					0.01	0.96		0.96
Bidrin 8EC	ΟZ	2.32					0.03	2.35		2.35
Incidental Pest										
App by Air (3 gal)	appl	8.25					0.11	8.36		8.36
IncidentalPestTrt\$15		22.50					0.30	22.80		22.80
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Acephate 90%	lb	5.21					0.05	5.26		5.26
Bifenthrin	ΟZ	6.02					0.06	6.08		6.08
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Transform WG	OZ	11.02					0.11	11.13		11.13
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Thidiazuron 4lb	ΟZ	3.43					0.02	3.45		3.45
Ethephon 6E	pţ	8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	3.50					0.02	3.52		3.52
Tribufos 61b	pt	5.11					0.03	5.14		5.14
Ethephon 6E	pt CD 30/F00	1.25	6 70	01 70	C 11		0.01	1.26	02 17	1.26
Cotton Picker/Module	6R-38 (500)		6.78	21.73	6.11		0.12	34.74	83.17	117.91
Gin & Haul Stalk Shredder-Flail	1b 20'	165.00	1 16	2 70	2.18		0.55	165.55	1 01	165.55
Roll-Out Pipe Irr.	20' acre	7.92	1.46 14.20	2.79 7.78	4.46		0.02 0.48	6.45 34.84	4.94	11.39 90.56
NOIT OUT TIPE III.	acte	1.32	14.20				0.40		55.72	
TOTALS		691.55	29.18	40.91	23.96	0.00	12.46	798.06	172.60	970.66
-										

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

Table 2.E Estimated monthly income and expense flows per acre
Cotton, 12R-38" solid, conserv. tillage, furrow irr.,
B3XF/W3FE variety, 10.5 ac-in., Delta Area, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						dol1	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1128.30
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	20.63	11.00	10.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.79	0.00
GINNING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	165.00
FERTILIZERS	33.17	0.00	0.00	0.00	0.00	23.02	0.00	23.02	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	47.23	0.00	25.93	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	1.74	3.71	57.46	22.25	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	116.10	0.00	0.00	0.00	0.00	0.00
GROWTH REGULATORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.06	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERADICATION FEE	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.72	0.00	0.00	0.00	0.00	1.60	3.79	4.55	1.60	0.23	0.62	8.85
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.82	0.00	0.00	0.00	0.00	0.92	2.06	5.81	5.15	4.36	0.25	8.81
REPAIR & MAINTENANCE	2.70	0.00	0.00	0.00	0.00	1.05	2.89	5.78	2.12	1.40	0.15	24.82
INTEREST ON OP. CAP.	3.31	0.00	0.00	0.00	0.80	0.62	4.07	0.84	1.54	0.40	0.19	0.69
TOTAL DIRECT EXPENSES	86.15	0.00	0.00	0.00	30.73	27.21	207.54	51.63	117.49	39.64	29.50	208.17
NET INCOME	-86.15	0.00	0.00	0.00	-30.73	-27.21			-117.49	-39.64	-29.50	920.13
NET INCOME TO DATE	-86.15	-86.15	-86.15	-86.15	-116.88	-144.09	-351.63	-403.26	-520.75	-560.39	-589.89	330.24

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

^{*} Lease costs are based on hourly usage costs.

Table 2.F Estimated returns for various price/yield combinations, per acre Cotton, 12R-38" solid, conserv. tillage, furrow irr., B3XF/W3FE variety, 10.5 ac-in., Delta Area, Mississippi, 2021

PRODUCT Cotton			75										
Cotton			75	80	85	90	95	100	105	110	115	120	125
	 Lint		0.48	0.51	0.54	0.57		ODUCT PRIC	0.67		0.74	0.77	0.80
COCCOII	DITTE											0.77	0.00
PERCENT	YIELD	UNIT -					d	ollars					
50	750.00	lb	-190	-166	-142	-118	-94	-70	-45	-21	2	26	50
			-363	-339	-315	-291	-266	-242	-218	-194	-170	-146	-121
60	900.00	lb	-135	-106	-77	-48	-19	9	38	67	96	125	154
			-307	-278	-249	-220	-191	-162	-133	-104	-75	-46	-17
70	1050.00	lb	-79	-45	-11	22	56	90	123	157	191	225	259
			-251	-217	-184	-150	-116	-82	-48	-14	18	52	86
80	1200.00	lb	-23	15	54	92	131	170	208	247	286	324	363
			-195	-157	-118	-79	-41	-2	36	74	113	152	190
90	1350.00	lb	32	76	119	163	206	250	293	337	380	424	467
			-139	-96	- 52	-9	34	77	121	164	208	251	294
100	1500.00	lb	88	136	185	233	281	330	378	426	475	523	571
			-83	-35	12	61	109	157	205	254	302	350	399
110	1650.00	lb	144	197	250	304	357	410	463	516	569	622	676
			-28	25	78	131	184	237	290	344	397	450	503
120	1800.00	lb	200	258	316	374	432	490	548	606	664	722	780
			27	85	143	201	259	317	375	433	491	549	607
130	1950.00	lb	256	319	382	444	507	570	633	696	758	821	884
			83	146	209	272	335	397	460	523	586	649	711
140	2100.00	lb	312	379	447	515	582	650	718	785	853	921	988
			139	207	275	342	410	477	545	613	680	748	816
150	2250.00	lb	368	440	513	585	658	730	803	875	948	1020	1092
			195	268	340	413	485	558	630	702	775	847	920

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 3.A Estimated costs per acre Cotton, 12R-38" solid, cons. tillage, pivot irr., B3XF/W3FE variety, 7.5 ac.-in., Delta Area, Mississippi, 2021

B3XF/W3FE var:	iety,	/.5 acin	., Delta Ar	ea, Missis	sippi, 2021
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIDECT TYPENCES		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (3 gal)	appl appl	7.00 5.50	2.5000 5.7500	17.50 31.63	
HARVEST AIDS Thidiazuron 41b	OZ	1.49	2.3000	3.43	
Ethephon 6E	pt	4.00	2.3125	9.25	
Tribufos 61b GINNING	pt	10.21	0.5000	5.11	
Gin & Haul FERTILIZERS	lb	0.11	1500.0000	165.00	
Potash (60% K20) UAN (32%)	cwt gal	22.11 1.34	1.5000 34.3582	33.17 46.04	
FUNGICIDES Cotton Seed Trt.	acre	20.00	1.0000	20.00	
HERBICIDES Clarity	pt	10.73	0.5000	5.37	
Glyphosate 31bs a.e Select Max	oz pt	0.13 12.74	32.0000	4.16 12.74	
Gramoxone SL 2.0	ΟZ	0.19	48.0000	9.12	
Cotoran Dual Magnum	pt pt	6.01 13.33	2.0000 1.0000	12.02 13.33 25.52	
Liberty 280 Warrant	oz pt	0.44 4.39	58.0000 3.0000	25.52 13.17	
INSECTICIDES	lb	6.94	1.7500	12.15	
Acephate 90% Bidrin 8EC	ΟZ	1.16	5.2000	6.03	
Centric 40WG Diamond .83EC	OZ OZ	5.08 1.28	2.0000 6.0000	10.16 7.68	
Imidacloprid 4F Bifenthrin	oz oz	1.31 0.94	2.0000 12.8000	2.62 12.03	
Lambda	ΟZ	0.95	1.0000	0.95	
IncidentalPestTrt\$15 Transform WG	acre oz	15.00 7.35	1.5000 1.5000	22.50 11.02	
SEED/PLANTS Cot. Seed B3XF/W3FE	thous	2.58	45.0000	116.10	
GROWTH REGULATORS Mepiquat Chloride	ΟZ	0.06	48.0000	2.88	
ADJUVANTS Surfactant	pt	3.30	0.4000	1.32	
CUSTOM FERTILIZE Custom Apply Fert	acre	7.50	1.0000	7.50	
ERADICATION FÉE Eradication	acre	1.00	1.0000	1.00	
CUSTOM LIME Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSULTANT Cotton Consultant		8.00	1.0000	8.00	
SOIL TEST	acre				
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Self-Propelled	hour hour	14.68 14.68	0.3993 0.2075	5.86 3.04	
IRRIGATE LĀBOR Special Labor	hour	9.06	0.2036	1.84	
HAND LABOR Implements	hour	9.06	0.1235	1.11	
Self-Propelled UNALLOCATED LABOR	hour hour	9.06 14.68	0.1899 0.4855	1.71 7.13	
DIESEL FUEL Tractors	gal	1.53	4.6248	7.08	
Self-Propelled	gal	1.53	4.8836	7.47	
1/4-mi. Pivot Irr. REPAIR & MAINTENANCE	gal	1.53	11.2011	17.14	
Implements Tractors	acre acre	7.40 2.91	1.0000	7.40 2.91	
Self-Propelled 1/4-mi. Pivot Irr.	acre acre	2.91 22.33 21.95	1.0000	2.91 22.33 21.95	
INTEREST ON OP. CAP.	acre	12.64	1.0000	12.64	
TOTAL DIRECT EXPENSES				803.06	
FIXED EXPENSES Implements	acre	10.22	1.0000	10.22	
Tractors Self-Propelled	acre acre	17.71 87.04	1.0000	17.71 87.04	
1/4-mi. Pivot Irr.	acre	71.85	1.0000	71.85	
TOTAL FIXED EXPENSES				186.82	
TOTAL SPECIFIED EXPENSES				989.88	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

Table 3.B Summary of estimated costs and returns per acre Cotton, 12R-38" solid, cons. tillage, pivot irr., B3XF/W3FE variety, 7.5 ac.-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	OUANTITY	AMOUNT	YOUR FARM
11511	ONII	TRICE	QUANTITI	AMOUNT	TOOK TAKE
		dollars		dollars	
INCOME					
Cotton Lint	lb	0.64	1500.0000	966.30	
Cotton Seed	lb	0.08	2025.0000	162.00	
TOTAL INCOME				1128.30	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	49.13	1.0000	49.13	
HARVEST AIDS	acre	17.79	1.0000	17.79	
GINNING	acre	165.00	1.0000	165.00	
FERTILIZERS	acre	79.21	1.0000	79.21	
FUNGICIDES	acre	20.00	1.0000	20.00	
HERBICIDES	acre	95.43	1.0000	95.43	
INSECTICIDES	acre	85.16	1.0000	85.16	
SEED/PLANTS	acre	116.10	1.0000	116.10	
GROWTH REGULATORS	acre	2.88	1.0000	2.88	
ADJUVANTS	acre	1.32	1.0000	1.32	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
ERADICATION FEE	acre	1.00	1.0000	1.00	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3135	2.82	
IRRIGATE LABOR	hour	9.06	0.2036	1.84	
OPERATOR LABOR	hour	14.68	0.6069	8.90	
UNALLOCATED LABOR	hour	14.68	0.4855	7.13	
DIESEL FUEL	gal	1.53	20.7096	31.69	
REPAIR & MAINTENANCE	acre	54.59	1.0000	54.59	
INTEREST ON OP. CAP.	acre	12.64	1.0000	12.64	
TOTAL DIRECT EXPENSES				803.06	
RETURNS ABOVE DIRECT EXE	PENSES			325.24	
TOTAL FIXED EXPENSES				186.82	
TOTAL SPECIFIED EXPENSES	3			989.88	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		138.42	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 3.C Estimated resource use for field operations, per acre Cotton, 12R-38" solid, cons. tillage, pivot irr., B3XF/W3FE variety, 7.5 ac.-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	חבטב	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATION/	UNIT	SIZE		OVER	MTH		IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.6660				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Potash (60% K20)	cwt					1.5000				
Bed-Subsoil Fold	12R-38	MFWD 225	0.053	1.00	Nov		0.05	0.05	0.05	0.04
Bed/Disk (Hipper)	12R-38	MFWD 225	0.049		Nov		0.02	0.02	0.02	0.01
App by Air (5 gal)	appl			1.00	Mar	1.0000				
Clarity	pt oz					0.5000				
Glyphosate 31bs a.e Select Max	pt					1.0000				
Surfactant	pt					0.2000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Apr		0.05	0.05	0.07	0.04
UAN (32%)	gal				-	17.1791				
Row Cond Folding	38'	MFWD 225	0.040		May		0.04	0.04	0.04	0.03
Plant - Folding	12R-38	MFWD 225	0.049	1.00	May		0.04	0.04	0.09	0.03
Cot. Seed B3XF/W3FE						45.0000				
Cotton Seed Trt.	acre		0 011	1 00	Marr	1.0000		0.01	0.01	0.00
Sprayer 600-825gal Gramoxone SL 2.0	90' 250hp oz		0.011	1.00	мау	48.0000		0.01	0.01	0.00
Cotoran	pt					2.0000				
Surfactant	pt					0.2000				
Cotton Consultant	acre			1.00	May	1.0000				
Eradication	acre				_	1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.00
Dual Magnum	pt					1.0000				
Liberty 280	OZ					29.0000				
Acephate 90% Sprayer 600-825gal	1b 90' 250hp		0.011	1 00	Jun	0.2500		0.01	0.01	0.00
Bidrin 8EC	0Z		0.011	1.00	oun	3.2000		0.01	0.01	0.00
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Jun	0.2000	0.05	0.05	0.07	0.04
UAN (32%)	gal					17.1791				
Spray (Direct/Layby)	12R-38	MFWD 225	0.044	1.00	Jun		0.04	0.04	0.06	0.03
Warrant	pt					3.0000				
Liberty 280	OZ					29.0000				
Mepiquat Chloride Centric 40WG	OZ					16.0000				
App by Air (3 gal)	oz appl			1.00	.T11]	1.0000				
Diamond .83EC	OZ			1.00	our	6.0000				
Imidacloprid 4F	ΟZ					2.0000				
Mepiquat Chloride	OZ					16.0000				
App by Air (3 gal)	appl			1.00	Jul	1.0000				
Acephate 90%	lb					0.7500				
Mepiquat Chloride	OZ					16.0000				
Bifenthrin App by Air (3 gal)	oz appl			0.25	Jul	6.4000 0.2500				
Lambda	OZ			0.23	our	1.0000				
Bidrin 8EC	OZ					2.0000				
Incidental Pest				1.50	Jul					
App by Air (3 gal)	appl					1.5000				
IncidentalPestTrt\$15	acre					1.5000				
App by Air (3 gal)	appl			1.00	Aug	1.0000				
Acephate 90%	lb					0.7500				
Bifenthrin App by Air (3 gal)	oz appl			1.00	Aug	6.4000 1.0000				
Transform WG	oz Oz			1.00	Aug	1.5000				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Thidiazuron 41b	OZ				1	2.3000				
Ethephon 6E	pt					2.0000				
App by Air (5 gal)	appl			0.50	Sep	0.5000				
Tribufos 61b	pt					0.5000				
Ethephon 6E	pt 6D-30(500)		0.172	1 00	O	0.3125		0 17	U 3 4	0 12
Cotton Picker/Module Gin & Haul	6R-38(500) lb		0.1/2	1.00	Oct Oct	1500.0000		0.17	0.34	0.13
Stalk Shredder-Flail	20'	MFWD 225	0.082	1.00	Oct	100.000	0.08	0.08	0.08	0.06
1/4-mi. Pivot Irr.	acre	223	0.002		Jan	1.0000			0.20	3.00
TOTALS							0.60	0.39	1.12	0.48

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests.

Fertilization decisions should be based on soil tests Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 3.D Estimated costs for field operations, per acre Cotton, 12R-38" solid, cons. tillage, pivot irr., B3XF/W3FE variety, 7.5 ac.-in., Delta Area, Mississippi, 2021

	SIZE/ UNIT		FUEL	R&M	DIRECT COS LABOR		INTER			TOTAL COST
					do	llars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton acre	31.60					1.26	32.86		32.86
Custom Apply Fert Potash (60% K20)	acre cwt	7.50 33.17					0.30 1.33	7.80 34.50		7.80 34.50
Potash (60% K20) Bed-Subsoil Fold Bed/Disk (Hipper) App by Air (5 gal) Clarity Clarity	12R-38	33.17	0.95	1.71	1.42		0.16	4.24	4.59	
Bed/Disk (Hipper)	12R-38		0.44				0.06	1.65		3.55
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Clarity	pt	5.37					0.14	5.51		5.51
Glyphosate 31bs a.e	OZ	4.16					0.11	4.27		4.27
Glyphosate 31bs a.e Select Max Surfactant Fert Appl (Liquid) UAN (32%) Row Cond Folding	pt n+	12.74 0.66					0.34	13.08 0.68		13.08
Fert Appl (Liquid)	12R=38	0.00	0.92	1.05	1.60		0.02	3.65	3.01	6.66
UAN (32%)	gal	23.02	0.52	1.00	1.00		0.54	23.56	3.01	23.56
Row Cond Folding Plant - Folding	38 「		0.72	0.58	1.08		0.05	2.43	2.97	5.40
Plant - Folding	12R-38		0.88	1.91	1.76		0.09	4.64	5.06	9.70
Cot. Seed B3XF/W3FE								118.42		118.42
Cotton Seed Trt.	acre	20.00	0 00	0 00	0 06		0.40	20.40	1 00	20.40
Sprayer 600-825gal Gramoxone SL 2.0	90' 250hp	9.12	0.23	0.20	0.36		0.02 0.18	0.81 9.30	1.29	2.10 9.30
Cotoran	pt	12.02					0.10	12.26		12.26
Surfactant	pt	0.66					0.01	0.67		0.67
	acre						0.16	8.16		8.16
Cotton Consultant Eradication Sprayer 600-825gal Dual Magnum Liberty 280 Acephate 90%	acre	1.00					0.02	1.02		1.02
Sprayer 600-825gal	90' 250hp		0.23	0.20	0.36		0.02	0.81	1.29	2.10
Dual Magnum	pt	13.33					0.27	13.60		13.60
Liberty 280 Acephate 90% Sprayer 600-825gal	OZ	12.76					0.26	13.02		13.02
Acephate 90% Sprayer 600-825gal	LD OO! 250bm	1.74	0.23	0.20	0.36		0.03 0.01	1.77	1.29	1.77 2.09
Bidrin 8EC	0Z	3.71	0.23	0.20	0.30		0.01	0.80 3.77	1.29	3.77
Fert Appl (Liquid)	12R-38	3.71	0.92	1.05	1.60		0.06	3.63	3.01	6.64
Fert Appl (Liquid) UAN (32%)		23.02					0.38	23.40		23.40
Spray (Direct/Layby)	12R-38		0.79	0.72	1.37		0.05	2.93	2.45	5.38
Warrant Liberty 280	pt	13.17					0.22	13.39		13.39
Liberty 280 Mepiquat Chloride Centric 40WG	OZ	12.76					0.21	12.97		12.97
Mepiquat Chioride	OZ	0.96 10.16					0.02 0.17	0.98 10.33		0.98 10.33
App by Air (3 gal)	annl	5.50					0.07	5.57		5.57
Diamond .83EC	OZ	7.68					0.10	7.78		7.78
Diamond .83EC Imidacloprid 4F	OZ	2.62					0.03	2.65		2.65
Mepiquat Chloride App by Air (3 gal)	OZ	0.96					0.01	0.97		0.97
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
Acephate 90%	lb	5.21					0.07	5.28		5.28
Mepiquat Chloride Bifenthrin	OZ	0.96 6.02					0.01	0.97 6.10		0.97 6.10
App by Air (3 gal)		1.38					0.03	1.40		1.40
Lambda	OZ	0.95					0.01	0.96		0.96
Bidrin 8EC	OZ	2.32					0.03	2.35		2.35
Incidental Pest										
App by Air (3 gal)	appl	8.25					0.11	8.36		8.36
IncidentalPestTrt\$15		22.50					0.30	22.80		22.80
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Acephate 90% Bifenthrin	lb oz	5.21 6.02					0.05 0.06	5.26 6.08		5.26 6.08
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Transform WG	OZ	11.02					0.11	11.13		11.13
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Thidiazuron 41b	OZ	3.43					0.02	3.45		3.45
Ethephon 6E	pt	8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	3.50					0.02	3.52		3.52
Tribufos 61b	pt ~+	5.11					0.03	5.14		5.14
Ethephon 6E	pt 6R-38(500)	1.25	6 70	21 72	6 11		0.01	1.26	83.17	1.26
Cotton Picker/Module Gin & Haul	1b	165.00	6.78	21.73	6.11		0.12 0.55	34.74 165.55	03.1/	117.91 165.55
Stalk Shredder-Flail	20'	100.00	1.46	2.79	2.18		0.02	6.45	4.94	11.39
1/4-mi. Pivot Irr.	acre		17.14	21.95	1.84		0.61	41.54		113.39
TOTALS		683.45	31.69	54.59	20.69	0.00	12.64	803.06	186.82	989.88

Note: Cost of production estimates are based on 2020 input prices.. Fertilization decisions should be based on soil tests.

Fertilization decisions should be based on soil tests Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 3.E Estimated monthly income and expense flows per acre
Cotton, 12R-38" solid, cons. tillage, pivot irr.,
B3XF/W3FE variety, 7.5 ac.-in., Delta Area, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1128.30
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	20.63	11.00	10.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.79	0.00
GINNING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	165.00
FERTILIZERS	33.17	0.00	0.00	0.00	0.00	23.02	0.00	23.02	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	47.23	25.93	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	1.74	13.87	47.30	22.25	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	116.10	0.00	0.00	0.00	0.00	0.00
GROWTH REGULATORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	1.92	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERADICATION FEE	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.07	0.00	0.00	0.00	0.00	1.60	4.90	3.48	0.20	0.15	0.00	8.29
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.39	0.00	0.00	0.00	0.00	0.92	2.06	7.08	6.86	5.14	0.00	8.24
REPAIR & MAINTENANCE	2.21	0.00	0.00	0.00	0.00	1.05	2.89	20.44	1.99	1.49	0.00	24.52
INTEREST ON OP. CAP.	3.24	0.00	0.00	0.00	0.80	0.62	4.10	1.57	1.03	0.41	0.18	0.69
TOTAL DIRECT EXPENSES	84.51	0.00	0.00	0.00	30.73	27.21	208.68	96.35	79.93	40.44	28.47	206.74
NET INCOME	-84.51	0.00	0.00	0.00	-30.73	-27.21	-208.68	-96.35	-79.93	-40.44	-28.47	921.56
NET INCOME TO DATE	-84.51	-84.51	-84.51	-84.51	-115.24	-142.45	-351.13	-447.48	-527.41	-567.85	-596.32	325.24

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

^{*} Lease costs are based on hourly usage costs.

Table 3.F Estimated returns for various price/yield combinations, per acre Cotton, 12R-38" solid, cons. tillage, pivot irr.,
B3XF/W3FE variety, 7.5 ac.-in., Delta Area, Mississippi, 2021

		-						-PERCENT-					
PRODUC	Т		75	80	85	90	95	100	105	110	115	120	125
Cotton	Lint		0.48	0.51	0.54	0.57	PR	0.64	0.67		0.74	0.77	0.80
PERCEN	T YIELD	UNIT -					d	ollars					
50	750.00	lb	-195	-171	-147	-123	-99	-75	-50	-26	-2	21	45
			-382	-358	-334	-310	-286	-261	-237	-213	-189	-165	-141
60	900.00	lb	-140	-111	-82	-53	-24	4	33	62	91	120	149
			-326	-297	-268	-239	-210	-181	-152	-123	-94	-65	-36
70	1050.00	lb	-84	-50	-16	17	51	85	118	152	186	220	254
			-270	-237	-203	-169	-135	-101	-67	-34	-0	33	67
8.0	1200.00	1b	-28	10	49	87	126	165	203	242	281	319	358
			-214	-176	-137	-99	-60	-21	16	55	94	132	171
90	1350.00	1h	27	71	114	158	201	245	288	332	375	419	462
3.0	1000.00		-159	-115	-72	-28	14	58	101	145	188	232	275
100	1500.00	lb	83	131	180	228	276	325	373	421	470	518	566
			-103	-54	-6	41	90	138	186	235	283	331	379
110	1650.00	lb	139	192	245	299	352	405	458	511	564	617	671
			-47	5	59	112	165	218	271	324	377	431	484
120	1800.00	lb	195	253	311	369	427	485	543	601	659	717	775
			8	66	124	182	240	298	356	414	472	530	588
130	1950.00	lb	251	314	377	439	502	565	628	691	753	816	879
			64	127	190	253	315	378	441	504	567	629	692
140	2100.00	lb	307	374	442	510	577	645	713	780	848	916	983
			120	188	255	323	391	458	526	594	661	729	796
150	2250.00	lb	363	435	508	580	653	725	798	870	943	1015	1087
			176	248	321	393	466	538	611	683	756	828	901

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 4.A Estimated costs per acre
Cotton, 12R-38" solid, no-till
B3XF/W3FE variety, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (3 gal)	appl appl	7.00 5.50	2.5000 5.2500	17.50 28.88	
	oz	1.49	2.3000	3.43	
	pt pt	4.00 10.21	2.3125	9.25 5.11	
	lb	0.11	1200.0000	132.00	
Potash (60% K20)	cwt gal	22.11 1.34	1.5000 25.4000	33.17 34.04	
	acre	20.00	1.0000	20.00	
Clarity Glyphosate 3lbs a.e Select Max	pt oz pt oz	10.73 0.13 12.74 0.19	0.5000 32.0000 1.0000 48.0000	5.37 4.16 12.74 9.12	
Cotoran	pt	6.01	2.0000	12.02	
Liberty 280	pt oz	13.33	1.0000	13.33 25.52	
Warrant INSECTICIDES	pt	4.39	3.0000	13.17	
	lb oz	6.94 1.16	1.7500 5.2000	12.15 6.03	
Centric 40WG	OZ OZ	5.08 1.28	2.0000	10.16 7.68	
Imidacloprid 4F	OZ OZ	1.31	2.0000	2.62 12.03	
Lambda	OZ	0.95	1.0000	0.95	
Transform WG	acre oz	15.00 7.35	1.0000 1.5000	15.00 11.02	
SEED/PLANTS Cot. Seed B3XF/W3FE	thous	2.58	45.0000	116.10	
± ±	OZ	0.06	48.0000	2.88	
	pt	3.30	0.4000	1.32	
CUSTOM FERTILIZE Custom Apply Fert	acre	7.50	1.0000	7.50	
ERADICATION FĒE Eradication	acre	1.00	1.0000	1.00	
CUSTOM LIME Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSULTANT Cotton Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR	hour	14.68	0.2712	3.98	
	hour	14.68	0.2075	3.04	
Implements	hour hour	9.06 9.06	0.0998	0.90 1.71	
	hour	14.69	0.3830	5.63	
Tractors	gal gal	1.53 1.53	3.1417 4.8836	4.81 7.47	
Implements	acre	5.35	1.0000	5.35 1.98	
Self-Propelled	acre acre acre	1.98 22.33 11.14	1.0000 1.0000 1.0000	22.33 11.14	
TOTAL DIRECT EXPENSES				696.54	
	acre	6.97	1.0000	6.97	
	acre acre	12.03 87.04	1.0000	12.03 87.04	
TOTAL FIXED EXPENSES				106.04	
TOTAL SPECIFIED EXPENSES				802.58	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

Table 4.B Summary of estimated costs and returns per acre Cotton, 12R-38" solid, no-till B3XF/W3FE variety, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Cotton Lint	lb	0.64	1200.0000	773.04	
Cotton Seed	lb	0.08	1620.0000	129.60	
TOTAL INCOME			•	902.64	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	46.38	1.0000	46.38	
HARVEST AIDS	acre	17.79	1.0000	17.79	
GINNING	acre	132.00	1.0000	132.00	
FERTILIZERS	acre	67.21	1.0000	67.21	
FUNGICIDES	acre	20.00	1.0000	20.00	
HERBICIDES	acre	95.43	1.0000	95.43	
INSECTICIDES	acre	77.66	1.0000	77.66	
SEED/PLANTS	acre	116.10	1.0000	116.10	
GROWTH REGULATORS	acre	2.88	1.0000	2.88	
ADJUVANTS	acre	1.32	1.0000	1.32	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
ERADICATION FEE	acre	1.00	1.0000	1.00	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.2897	2.61	
OPERATOR LABOR	hour	14.68	0.4788	7.02	
UNALLOCATED LABOR	hour	14.69	0.3830	5.63	
DIESEL FUEL	gal	1.53	8.0253	12.28	
REPAIR & MAINTENANCE	acre	29.66	1.0000	29.66	
INTEREST ON OP. CAP.	acre	11.14	1.0000	11.14	
TOTAL DIRECT EXPENSES			•	696.54	
RETURNS ABOVE DIRECT EXI	PENSES			206.10	
TOTAL FIXED EXPENSES				106.04	
TOTAL SPECIFIED EXPENSES	3		•	802.58	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		100.06	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 4.C Estimated resource use for field operations, per acre Cotton, 12R-38" solid, no-till B3XF/W3FE variety, Delta Area, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES	МТН	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.6660				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Potash (60% K20)	cwt			1 00		1.5000				
App by Air (5 gal)	appl			1.00	Mar	1.0000				
Clarity Glyphosate 31bs a.e	pt oz					0.5000				
Select Max	pt					1.0000				
Surfactant	pt					0.2000				
Row Cond Folding	38'	MFWD 225	0.040	1.00	May		0.04	0.04	0.04	0.03
NT Plant-Folding	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.10	0.04
Cot. Seed B3XF/W3FE	thous					45.0000				
Cotton Seed Trt.	acre					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Мау			0.01	0.01	0.00
Gramoxone SL 2.0	OZ					48.0000				
Cotoran	pt					2.0000				
Surfactant	pt			1 00	M	0.2000				
Cotton Consultant Eradication	acre acre			1.00	мау	1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1 00	May	1.0000		0.01	0.01	0.00
Dual Magnum	pt		0.011	1.00	1101 y	1.0000		0.01	0.01	0.00
Liberty 280	OZ					29.0000				
Acephate 90%	lb					0.2500				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jun			0.01	0.01	0.00
Bidrin 8EC	ΟZ					3.2000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Jun		0.05	0.05	0.07	0.04
UAN (32%)	gal					25.4000				
Spray (Direct/Layby)	12R-38	MFWD 225	0.044	1.00	Jun	2 2000	0.04	0.04	0.06	0.03
Warrant	pt					3.0000				
Liberty 280	oz oz					29.0000 16.0000				
Mepiquat Chloride Centric 40WG	OZ					2.0000				
App by Air (3 gal)	appl			1.00	.T11]	1.0000				
Diamond .83EC	OZ			1.00	0 4 2	6.0000				
Imidacloprid 4F	OZ					2.0000				
Mepiquat Chloride	OZ					16.0000				
App by Air (3 gal)	appl			1.00	Jul	1.0000				
Acephate 90%	lb					0.7500				
Mepiquat Chloride	ΟZ					16.0000				
Bifenthrin	OZ					6.4000				
App by Air (3 gal)	appl			0.25	Jul	0.2500				
Lambda Bidnin SEC	OZ					1.0000				
Bidrin 8EC Incidental Pest	ΟZ			1.00	Jul	2.0000				
App by Air (3 gal)	appl			1.00	our	1.0000				
IncidentalPestTrt\$15						1.0000				
App by Air (3 gal)	appl			1.00	Aug	1.0000				
Acephate 90%	lb				_	0.7500				
Bifenthrin	ΟZ					6.4000				
App by Air (3 gal)	appl			1.00	Aug	1.0000				
Transform WG	ΟZ					1.5000				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Thidiazuron 41b	OZ					2.3000				
Ethephon 6E App by Air (5 gal)	pt			0.50	Sep	2.0000				
Tribufos 61b	appl			0.50	sep	0.5000				
Ethephon 6E	pt pt					0.3125				
Cotton Picker/Module	6R-38 (500)		0.172	1.00	Oct	0.5125		0.17	0.34	0.13
Gin & Haul	lb			1.00		1200.0000				
Stalk Shredder-Flail	20'	MFWD 225	0.082		Oct		0.08	0.08	0.08	0.06
TOTALS							0.47	0.27	0.76	0.38

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

Table 4.D Estimated costs for field operations, per acre Cotton, 12R-38" solid, no-till B3XF/W3FE variety, Delta Area, Mississippi, 2021

ODDDA MILON /	-				DIDEGE G	0.00			DIVER	moma r
OPERATION/ OPERATING INPUT	SIZE/ UNIT	OP INPUT	FUEL			LEASE			FIXED COST	TOTAL
						dollars-				
					,	dollars				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread) Custom Apply Fert Potash (60% K20) App by Air (5 gal) Clarity Glyphosate 3lbs a.e	ton	31.60					1.26	32.86		32.86
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
App by Air (5 gal)	CW L	33.17 7.00					1.33	34.50 7.19		34.50 7.19
Clarity	appi nt	5.37					0.14	5.51		5.51
Glyphosate 31bs a.e	OZ	4.16					0.11	4.27		4.27
Select Max	pt	12.74					0.34	13.08		13.08
Surfactant	pt pt	0.66					0.02	0.68		0.68
Row Cond Folding	38'		0.72	0.58	1.08		0.05	2.43	2.97	5.40
NT Plant-Folding Cot. Seed B3XF/W3FF	12R-38		0.92	2.19	1.84		0.10	5.05	5.63	10.68
								118.42		118.42
Cotton Seed Trt.	acre	20.00	0 22	0.20	0.26		0.40	20.40	1 20	20.40
Sprayer 600-825gal Gramoxone SL 2.0	90 23011p	9.12	0.23	0.20	0.36		0.02	0.81 9.30	1.29	9.30
Cotoran	pt	12.02					0.24	12.26		12.26
Surfactant	pt	0.66					0.01	0.67		0.67
	acre	8.00					0.16	8.16		8.16
Eradication	acre	1.00					0.02	1.02		1.02
Sprayer 600-825gal	90' 250hp		0.23	0.20	0.36		0.02	0.81	1.29	2.10
Dual Magnum	pt	13.33					0.27			13.60
Dual Magnum Liberty 280 Acephate 90% Sprayer 600-825gal Bidrin 8EC	OZ	12.76					0.26	13.02		13.02
Chrane 600-925gal	1D 00! 250hp	1.74	0.23	0.20	0.36		0.03	1.77	1.29	1.77
Bidrin 8EC	0Z	3.71	0.23	0.20	0.30		0.01	3.77	1.29	3.77
Fert Appl (Liquid)	12R-38	J. / I	0.92	1.05	1.60		0.06	3.63	3.01	6.64
UAN (32%)	gal	34.04					0.57	34.61		34.61
Spray (Direct/Layby)			0.79	0.72	1.37		0.05	2.93	2.45	5.38
Warrant	pt oz	13.17					0.22	13.39		13.39
Liberty 280	OZ	12.76					0.21	12.97		12.97
Mepiquat Chloride Centric 40WG	OZ	0.96					0.02	0.98		0.98
Centric 40WG	OZ	10.16					0.17	10.33		10.33 5.57
App by Air (3 gal)	appı 07	5.50 7.68					0.10	5.57 7.78		7.78
Imidacloprid 4F	02	2.62					0.03	2.65		2.65
Diamond .83EC Imidacloprid 4F Mepiquat Chloride	OZ	0.96					0.01	0.97		0.97
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
Acephate 90%	lb	5.21					0.07	5.28		5.28
Mepiquat Chioride	ΟZ	0.96					0.01	0.97		0.97
Bifenthrin	OZ	6.02					0.08	6.10		6.10
App by Air (3 gal)		1.38					0.02	1.40		1.40
Lambda Bidrin 8EC	OZ OZ	0.95 2.32					0.01	0.96 2.35		2.35
Incidental Pest	02	2.52					0.03	2.55		2.55
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
IncidentalPestTrt\$15		15.00					0.20	15.20		15.20
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Acephate 90%	lb	5.21					0.05	5.26		5.26
Bifenthrin	OZ	6.02					0.06	6.08		6.08
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Transform WG App by Air (5 gal)	oz appl	11.02 7.00					0.11	11.13 7.05		11.13 7.05
Thidiazuron 4lb	OZ	3.43					0.03	3.45		3.45
Ethephon 6E	pt	8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	3.50					0.02	3.52		3.52
Tribufos 6lb	pt	5.11					0.03	5.14		5.14
Ethephon 6E	pt	1.25					0.01	1.26		1.26
Cotton Picker/Module	6R-38 (500)		6.78	21.73	6.11		0.12	34.74	83.17	117.91
Gin & Haul	1b 20'	132.00	1 16	2 70	2 10		0.44	132.44	V 0 V	132.44
Stalk Shredder-Flail	∠∪ '		1.46	2.79	2.18		0.02	6.45	4.94	11.39
TOTALS		628.20	12.28	29.66	15.26	0.00	11.14	696.54	106.04	802.58

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 4.E Estimated monthly income and expense flows per acre Cotton, 12R-38" solid, no-till
B3XF/W3FE variety, Delta Area, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
·						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	902.64
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	17.88	11.00	10.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.79	0.00
GINNING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.00
FERTILIZERS	33.17	0.00	0.00	0.00	0.00	0.00	0.00	34.04	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	47.23	25.93	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	1.74	13.87	39.80	22.25	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	116.10	0.00	0.00	0.00	0.00	0.00
GROWTH REGULATORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	1.92	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERADICATION FEE	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	3.64	3.33	0.00	0.00	0.00	8.29
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	2.10	1.94	0.00	0.00	0.00	8.24
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	3.17	1.97	0.00	0.00	0.00	24.52
INTEREST ON OP. CAP.	3.02	0.00	0.00	0.00	0.80	0.00	4.08	1.37	0.77	0.34	0.18	0.58
TOTAL DIRECT EXPENSES	78.62	0.00	0.00	0.00	30.73	0.00	207.72	83.41	60.37	33.59	28.47	173.63
NET INCOME	-78.62	0.00	0.00	0.00	-30.73	0.00	-207.72	-83.41	-60.37	-33.59	-28.47	729.01
NET INCOME TO DATE	-78.62	-78.62	-78.62	-78.62	-109.35	-109.35	-317.07	-400.48	-460.85	-494.44	-522.91	206.10

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

^{*} Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre Cotton, 12R-38" solid, no-till B3XF/W3FE variety, Delta Area, Mississippi, 2021

		-						-PERCENT-					
PRODUC'	Г		75	80	85	90	95	100 ODUCT PRI	105	110	115	120	125
Cotton	Lint		0.48	0.51	0.54		0.61	0.64	0.67			0.77	0.80
PERCEN	r YIELD	UNIT -					d	ollars					
50	600.00	lb	-210 -316	-191 -297	-172 -278	-152 -258	-133 -239	-114 -220	-94 -200	-75 -181	-56 -162	-36 -142	-17 -123
60	720.00	lb	-166 -272	-142 -248	-119 -225	-96 -202	-73 -179	-50 -156	-26 -132	-3 -109	19 -86	42 -63	65 -40
70	840.00	lb	-121 -227	-94 -200	-67 -173	-40 -146	-13 -119	13 -92	40 -65	68 -38	95 - 10	122 16	149 43
80	960.00	lb	-76 -182	-45 -151	-14 -120	16 -89	47 -58	77 -28	108	139 33	170 64	201 95	232 126
90	1080.00	lb	-31 -137	2 -103	37 -68	72 -33	107 1	142 36	176 70	211 105	246 140	281 175	315 209
100	1200.00	lb	12 -93	51 -54	90 -15	128 22	167 61	206 100	244 138	283 177	322 216	360 254	399 293
110	1320.00	lb	57 -48	100 -5	142 36	185 79	227 121	270 164	312 206	355 249	397 291	440 334	482 376
120	1440.00	lb	102 -3	148 42	195 89	241 135	287 181	334 228	380 274	426 320	473 367	519 413	566 460
130	1560.00	lb	147 41	197 91	247 141	297 191	348 241	398 292	448 342	498 392	549 442	599 493	649 543
140	1680.00	lb	191 85	245 139	300 193	354 248	408 302	462 356	516 410	570 464	624 518	678 572	732 626
150	1800.00	lb	236 130	294 188	352 246	410 304	468 362	526 420	584 478	642 536	700 594	758 652	816 710

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 5.A Estimated costs per acre Cotton, 12R-38" 2X1 full-skip (8 rows planted) Cons. till., B3XF/W3FE variety, Delta, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (3 gal) HARVEST AIDS	appl appl	7.00 5.50	2.5000 5.2500	17.50 28.88	
Thidiazuron 4lb Ethephon 6E Tribufos 6lb	oz pt	1.49 4.00 10.21	2.3000 2.3125 0.5000	3.43 9.25 5.11	
GINNING Gin & Haul	pt lb	0.11	811.0000	89.21	
FERTILIZERS Potash (60% K20)	cwt	22.11	1.5000	33.17	
UAN (32%) FUNGICIDES	gal	1.34	32.5498	43.62	
Cotton Seed Trt. HERBICIDES	acre	20.00	0.6700	13.40	
Clarity Glyphosate 31bs a.e	pt oz	10.73	0.5000	5.37 4.16	
Select Max Gramoxone SL 2.0	pt oz	12.74	1.0000	12.74 9.12	
Cotoran Dual Magnum Liberty 280	pt pt oz	6.01 13.33 0.44	2.0000 1.0000 58.0000	12.02 13.33 25.52	
Warrant INSECTICIDES	pt	4.39	2.0000	8.78	
Acephate 90% Bidrin 8EC	lb oz	6.94 1.16	1.7500 5.2000	12.15 6.03	
Centric 40WG Diamond .83EC	OZ OZ	5.08 1.28	1.3400	6.81 7.68	
Imidacloprid 4F Bifenthrin	OZ OZ	1.31 0.94	2.0000 12.8000	2.62 12.03	
Lambda IncidentalPestTrt\$15	oz acre	0.95 15.00	1.0000	0.95 15.00	
Transform WG SEED/PLANTS	OZ	7.35	1.5000	11.02	
Cot. Seed B3XF/W3FE GROWTH REGULATORS		2.58	30.0000	77.40	
Mepiquat Chloride ADJUVANTS Surfactant	OZ D‡	0.06 3.30	42.7200	2.56 1.32	
CUSTOM FERTILIZE Custom Apply Fert	pt acre	7.50	1.0000	7.50	
ERADICATION FEE Eradication	acre	1.00	1.0000	1.00	
CUSTOM LIME Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSULTANT Cotton Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.8159	11.97	
Self-Propelled HAND LABOR Implements	hour	14.68 9.06	0.1958	2.87 2.87	
Self-Propelled UNALLOCATED LABOR	hour	9.06 14.66	0.1840	1.66 11.87	
DIESEL FUEL Tractors	gal	1.53	9.4502	14.46	
Self-Propelled REPAIR & MAINTENANCE	gal	1.53	3.4035	5.21	
Implements Tractors	acre acre	10.87	1.0000	10.87 5.93	
Self-Propelled INTEREST ON OP. CAP.	acre acre	10.01 10.62	1.0000	10.01 10.62	
TOTAL DIRECT EXPENSES				629.97	
FIXED EXPENSES Implements Tractors	acre acre	16.42 36.21	1.0000	16.42 36.21	
Self-Propelled	acre	39.37	1.0000	39.37	
TOTAL FIXED EXPENSES				92.00	
TOTAL SPECIFIED EXPENSES				721.97	

Note: Cost of production estimates are based on 2020 input prices.. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

Table 5.B Summary of estimated costs and returns per acre Cotton, 12R-38" 2X1 full-skip (8 rows planted)
Cons. till., B3XF/W3FE variety, Delta, Mississippi, 2021

ITEM	UNIT	PRICE	OUANTITY	AMOUNT	YOUR FARM
	V-1		£		
		dollars		dollars	
INCOME					
Cotton Lint	lb		811.0000	522.45	
Cotton Seed	lb	0.08	1095.0000	87.60	
TOTAL INCOME				610.05	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	46.38	1.0000	46.38	
HARVEST AIDS	acre	17.79	1.0000	17.79	
GINNING	acre	89.21	1.0000	89.21	
FERTILIZERS	acre	76.79	1.0000	76.79	
FUNGICIDES	acre	13.40	1.0000	13.40	
HERBICIDES	acre	91.04	1.0000	91.04	
INSECTICIDES	acre	74.31	1.0000	74.31	
SEED/PLANTS	acre	77.40	1.0000	77.40	
GROWTH REGULATORS	acre	2.56	1.0000	2.56	
ADJUVANTS	acre	1.32	1.0000	1.32	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
ERADICATION FEE	acre	1.00	1.0000	1.00	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.5022	4.53	
OPERATOR LABOR	hour	14.68	1.0118	14.84	
UNALLOCATED LABOR	hour	14.66	0.8094	11.87	
DIESEL FUEL	gal	1.53	12.8538	19.67	
REPAIR & MAINTENANCE	acre	26.81	1.0000	26.81	
INTEREST ON OP. CAP.	acre	10.62	1.0000	10.62	
TOTAL DIRECT EXPENSES				629.97	
RETURNS ABOVE DIRECT EXI	PENSES			-19.92	
TOTAL FIXED EXPENSES				92.00	
TOTAL SPECIFIED EXPENSES	3			721.97	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-111.92	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 5.C Estimated resource use for field operations, per acre Cotton, 12R-38" 2X1 full-skip (8 rows planted) Cons. till., B3XF/W3FE variety, Delta, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	МТН	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.6660				
Custom Apply Fert Potash (60% K20)	acre			1.00	Nov	1.0000				
Bed-Subsoil Fold	cwt 8R-38 2x1	MFWD 225	0.053	1.00	Nov	1.3000	0.05	0.05	0.05	0.04
Bed/Disk (Hipper)	8R-38 2x1	MFWD 225	0.049		Nov		0.02	0.02	0.02	0.01
App by Air (5 gal)	appl			1.00	Mar	1.0000				
Clarity	pt					0.5000				
Glyphosate 31bs a.e Select Max	oz pt					32.0000 1.0000				
Surfactant	pt					0.2000				
Fert Appl (Liquid)	8R-38 2x1	MFWD 225	0.051	1.00	Apr		0.05	0.05	0.07	0.04
UAN (32%)	gal					16.2749				
Row Cond Folding	38'	MFWD 225	0.040	1.00	May		0.04	0.04	0.04	0.03
Plant - Folding Cot. Seed B3XF/W3FE	8R-38 2x1 thous	MFWD 225	0.049	1.00	May	30.0000	0.04	0.04	0.09	0.03
Cotton Seed Trt.	acre					0.6700				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.00
Gramoxone SL 2.0	OZ					48.0000				
Cotoran	pt					2.0000				
Surfactant Cotton Consultant	pt acre			1.00	May	0.2000 1.0000				
Eradication	acre			1.00	may	1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.00
Dual Magnum	pt					1.0000				
Liberty 280	OZ					29.0000				
Acephate 90% Spray (Direct/Layby)	lb 8R-38 2x1	MFWD 225	0.044	1 00	Jun	0.2500	0.04	0.04	0.06	0.03
Bidrin 8EC	OZ OZ	MI WD 225	0.011	1.00	oun	3.2000	0.04	0.04	0.00	0.03
Fert Appl (Liquid)	8R-38 2x1	MFWD 225	0.051	1.00	Jun		0.05	0.05	0.07	0.04
UAN (32%)	gal					16.2749				
Spray (Direct/Layby)	8R-38 2x1	MFWD 225	0.044	1.00	Jun	2 0000	0.04	0.04	0.06	0.03
Warrant Liberty 280	pt oz					2.0000				
Mepiquat Chloride	OZ					10.7200				
Centric 40WG	OZ					1.3400				
App by Air (3 gal)	appl			1.00	Jul	1.0000				
Diamond .83EC	OZ					6.0000 2.0000				
Imidacloprid 4F Mepiquat Chloride	OZ OZ					16.0000				
App by Air (3 gal)	appl			1.00	Jul	1.0000				
Acephate 90%	lb					0.7500				
Mepiquat Chloride	ΟZ					16.0000				
Bifenthrin	OZ			0.25	T., 1	6.4000				
App by Air (3 gal) Lambda	appl oz			0.23	Jul	0.2500 1.0000				
Bidrin 8EC	OZ					2.0000				
Incidental Pest				1.00	Jul					
App by Air (3 gal)	appl					1.0000				
IncidentalPestTrt\$15				1 00	7,110	1.0000				
App by Air (3 gal) Acephate 90%	appl lb			1.00	Aug	1.0000 0.7500				
Bifenthrin	OZ					6.4000				
App by Air (3 gal)	appl			1.00	Aug	1.0000				
Transform WG	OZ			1 00		1.5000				
App by Air (5 gal) Thidiazuron 4lb	appl			1.00	Sep	1.0000 2.3000				
Ethephon 6E	oz pt					2.0000				
App by Air (5 gal)	appl			0.50	Sep	0.5000				
Ethephon 6E	pt				-	0.3125				
Tribufos 61b	pt		0 170	1 00	0 6 1	0.5000		0 17	0 24	0 10
Cotton Picker Boll Buggy	4R2x1 (350) 4R2x1 (350)	MFWD 225	0.172	1.00	Oct Oct		0.17	0.17 0.17	0.34 0.17	0.13
Module Builder	4R2x1 (350)	MFWD 225	0.172	1.00	Oct		0.17	0.17	0.17	0.13
Gin & Haul	lb		=	1.00	Oct	811.0000				= -
Stalk Shredder-Flail	15'	MFWD 225	0.110	1.00	Oct		0.11	0.11	0.11	0.08
TOTALS							1.01	0.81	1.51	0.80
1014110							1.01	0.01	T.JT	0.00

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

Table 5.D Estimated costs for field operations, per acre Cotton, 12R-38" 2X1 full-skip (8 rows planted) Cons. till., B3XF/W3FE variety, Delta, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	OP INPUT	FUEL		DIRECT CO LABOR					TOTAL COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	31.60					1.26	32.86		32.86
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Potash (60% K20)	cwt	33.17					1.33	34.50		34.50
Bed-Subsoil Fold	8R-38 2x1		0.95		1.42		0.16	4.24	4.59	8.83
Bed/Disk (Hipper)	8R-38 2x1		0.44	0.50	0.65		0.06	1.65	1.90	3.55
	appl	7.00					0.19	7.19		7.19
	pt	5.37 4.16					0.14 0.11	5.51 4.27		5.51 4.27
Glyphosate 31bs a.e Select Max		12.74					0.11	13.08		13.08
Select Max Surfactant	pt.	0.66					0.02	0.68		0.68
Fert Appl (Liquid)	8R-38 2x1		0.92	1.10	1.60		0.08	3.70	3.08	6.78
UAN (32%)	gal 38'						0.51	22.32		22.32
Row Cond Folding	38 -		0.72	0.58	1.08		0.05	2.43	2.97	5.40
Plant - Folding	8R-38 2x1		0.88	1.91	1.76		0.09	4.64	5.06	9.70
Cot. Seed B3XF/W3FE	thous	77.40					1.55	78.95		78.95
Cotton Seed Trt.	acre	13.40	0 00	0 00	0.26		0.27	13.67	1 00	13.67
Sprayer 600-825gal Gramoxone SL 2.0	90' 250hp	9.12	0.23	0.20	0.36		0.02	0.81	1.29	2.10 9.30
Cotoran	pt	12.02					0.18 0.24	9.30 12.26		12.26
	pt	0.66					0.01	0.67		0.67
	acre	8.00					0.16	8.16		8.16
Eradication	acre	1.00					0.02	1.02		1.02
Sprayer 600-825gal	90' 250hp		0.23	0.20	0.36		0.02	0.81	1.29	2.10
Dual Magnum	pt -	13.33					0.27	13.60		13.60
Liberty 280	OZ	12.76					0.26	13.02		13.02
Acephate 90%		1.74					0.03	1.77		1.77
Spray (Direct/Layby)	8R-38 2x1	2 71	0.79	0.72	1.37		0.05	2.93	2.45	5.38
Bidrin 8EC	OZ	3.71	0 00	1 10	1 (0		0.06	3.77	2 00	3.77 6.76
Fert Appl (Liquid) UAN (32%)	8R-38 2x1 gal	21.81	0.92	1.10	1.60		0.06 0.36	3.68 22.17	3.08	22.17
Spray (Direct/Layby)			0.79	0.72	1.37		0.05	2.93	2.45	5.38
Warrant	pt.	8.78	0.75	0.72	1.07		0.15	8.93	2.10	8.93
Liberty 280	pt oz	12.76					0.21	12.97		12.97
Mepiquat Chloride	OZ	0.64					0.01	0.65		0.65
Mepiquat Chloride Centric 40WG	OZ	6.81					0.11	6.92		6.92
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
Diamond .83EC	OZ	7.68					0.10	7.78		7.78
Diamond .83EC Imidacloprid 4F Mepiquat Chloride App by Air (3 gal)	OZ	2.62					0.03	2.65		2.65
Mepiquat Unioride	OZ appl	0.96 5.50					0.01	0.97 5.57		0.97 5.57
Acephate 90%	appi lh	5.21					0.07	5.28		5.28
Meniquat Chloride	1b	0.96					0.01	0.97		0.97
Mepiquat Chloride Bifenthrin	OZ	6.02					0.08	6.10		6.10
App by Air (3 gal)	appl	1.38					0.02	1.40		1.40
Lambda	OZ	0.95					0.01	0.96		0.96
Bidrin 8EC	OZ	2.32					0.03	2.35		2.35
Incidental Pest										
App by Air (3 gal)		5.50					0.07	5.57		5.57
IncidentalPestTrt\$15	_	15.00					0.20	15.20		15.20
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Acephate 90% Bifenthrin	lb oz	5.21 6.02					0.05 0.06	5.26 6.08		5.26 6.08
App by Air (3 gal)	appl	5.50					0.06	5.56		5.56
Transform WG	OZ	11.02					0.11	11.13		11.13
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Thidiazuron 41b	OZ	3.43					0.02	3.45		3.45
Ethephon 6E	pt	8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	3.50					0.02	3.52		3.52
Ethephon 6E	pt	1.25					0.01	1.26		1.26
Tribufos 61b	pt	5.11					0.03	5.14	0.6 =0	5.14
Cotton Picker	4R2x1 (350		4.75	9.61	6.11		0.07	20.54	36.79	57.33
Boll Buggy	4R2x1 (350		3.05	2.56	4.55		0.03	10.19	10.22	20.41
Module Builder Gin & Haul	4R2x1(350 lb	89.21	3.05	2.74	6.11		0.04	11.94 89.51	10.58	22.52 89.51
Stalk Shredder-Flail	15 '	07.21	1.95	3.16	2.90		0.03	8.04	6.25	14.29
TITE DIFFERENCE FIGHT	_~									
TOTALS		541.63	19.67	26.81	31.24	0.00	10.62	629.97	92.00	721.97

Note: Cost of production estimates are based on 2020 input prices.. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 5.E Estimated monthly income and expense flows per acre Cotton, 12R-38" 2X1 full-skip (8 rows planted) Cons. till., B3XF/W3FE variety, Delta, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	610.05
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	17.88	11.00	10.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.79	0.00
GINNING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.21
FERTILIZERS	33.17	0.00	0.00	0.00	0.00	21.81	0.00	21.81	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	13.40	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	47.23	21.54	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	1.74	10.52	39.80	22.25	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	77.40	0.00	0.00	0.00	0.00	0.00
GROWTH REGULATORS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	1.92	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERADICATION FEE	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.07	0.00	0.00	0.00	0.00	1.60	3.56	4.34	0.00	0.00	0.00	19.67
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.39	0.00	0.00	0.00	0.00	0.92	2.06	2.50	0.00	0.00	0.00	12.80
REPAIR & MAINTENANCE	2.21	0.00	0.00	0.00	0.00	1.10	2.89	2.54	0.00	0.00	0.00	18.07
INTEREST ON OP. CAP.	3.24	0.00	0.00	0.00	0.80	0.59	3.17	1.06	0.77	0.34	0.18	0.47
TOTAL DIRECT EXPENSES	84.51	0.00	0.00	0.00	30.73	26.02	161.11	64.95	60.37	33.59	28.47	140.22
NET INCOME	-84.51	0.00	0.00	0.00	-30.73	-26.02	-161.11	-64.95	-60.37	-33.59	-28.47	469.83
NET INCOME TO DATE	-84.51	-84.51	-84.51	-84.51	-115.24	-141.26	-302.37	-367.32	-427.69	-461.28	-489.75	-19.92

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

^{*} Lease costs are based on hourly usage costs.

Table 5.F Estimated returns for various price/yield combinations, per acre Cotton, 12R-38" 2X1 full-skip (8 rows planted)
Cons. till., B3XF/W3FE variety, Delta, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Cotton	Lint		0.48	0.51	0.54		0.61	ODUCT PRI	0.67		0.74	0.77	0.80
PERCENT	YIELD	UNIT -					d	ollars					
50	405.50	lb	-301 -393	-288 -380	-275 -367	-262 -354	-249 -341	-236 -328	-223 -315	-210 -302	-197 -289	-184 -276	-171 -263
60	486.60	lb	-271 -363	-255 -347	-240 -332	-224 -316	-208 -300	-193 -285	-177 -269	-161 -253	-146 -238	-130 -222	-114 -206
70	567.70	lb	-241 -333	-222 -314	-204 -296	-186 -278	-168 -260	-149 -241	-131 -223	-113 -205	-94 -186	-76 -168	-58 -150
80	648.80	lb	-210 -302	-190 -282	-169 -261	-148 -240	-127 -219	-106 -198	-85 -177	-64 -156	-43 -135	-22 -114	-2 -94
90	729.90	lb	-180 -272	-157 -249	-133 -225	-110 -202	-86 -178	-63 -155	-39 -131	-16 -108	7 -84	30 -61	54 -37
100	811.00	lb	-150 -242	-124 -216	-98 -190	-72 -164	-46 -138	-19 -111	6 -85	32 -59	58 -33	84 -7	110 18
110	892.10	lb	-120 -212	-91 -183	-62 -154	-34 -126	-5 -97	23 -68	52 -39	80 -11	109 17	138 46	167 75
120	973.20	lb	-90 -182	-58 -150	-27 -119	3 -88	35 -56	66 -25	98 6	129 37	160 68	192 100	223 131
130	1054.30	lb	-59 -151	-25 -117	8 -83	42 -49	76 - 15	109 17	143 51	177 85	211 119	245 153	279 187
140	1135.40	lb	-29 -121	6 -85	43 -48	80 -11	116 24	153 61	189 97	226 134	262 170	299 207	336 244
150	1216.50	lb	0 -91	39 -52	78 -13	118 26	157 65	196 104	235 143	274 182	314 222	353 261	392 300

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 6.A Estimated costs per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Non-irrigated, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY		4011410			
App by Air (5 gal) HARVEST AIDS	appl	7.00	4.0000	28.00	
Gramoxone SL Sodium Chlorate 5L	oz gal	0.19 6.77	16.0000 0.6000	3.04 4.06	
FERTILIZERS Phosphorus (46% P205) Potash (60% K20)	cwt cwt	17.31 22.11	0.8700 1.3300	15.06 29.41	
FUNGICIDES CruiserMaxx Vibrance	ΟZ	4.75	1.6000	7.60	
HERBICIDES Glyphosate 3lbs a.e 2,4-D Amine 4 Select Max Valor SX	oz pt pt oz	0.13 2.25 12.74 4.51	64.0000 2.0000 1.0000 2.0000	8.32 4.50 12.74 9.02	
Boundary Gramoxone SL 2.0 Liberty 280 Dual Magnum Zidua DF	pt oz oz pt oz	11.07 0.19 0.44 13.33 8.72	2.0000 48.0000 29.0000 1.0000 1.5000	22.14 9.12 12.76 13.33 13.08	
INSECTICIDES Acephate 90SP IncidentalPestTrt \$8	lb acre	6.42 8.00	0.7500 1.0000	4.81 8.00	
SEED/PLANTS Soybean Enlist E3 ADJUVANTS	lb	1.20	50.0000	60.00	
Surfactant CUSTOM FERTILIZE	pt	3.30	1.0000	3.30	
Custom Apply Fert HAULING	acre	7.50	1.0000	7.50	
Haul Soybeans CUSTOM LIME	bu	0.27	42.0000	11.34	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.3330	15.80	
Soybeans Consultant INOCULANT	acre	6.50	1.0000	6.50	
Inoculant -Soybean SOIL TEST	acre	1.55	1.0000	1.55	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters HAND LABOR	hour hour	14.68 14.68	0.2942 0.0851	4.30 1.25	
Implements UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.64	0.0959 0.3414	0.87 5.00	
Tractors Harvesters	gal gal	1.53 1.53	3.4079 1.4243	5.22 2.18	
REPAIR & MAINTENANCE Implements Tractors Harvesters INTEREST ON OP. CAP.	acre acre acre acre	5.23 2.15 3.50 7.65	1.0000 1.0000 1.0000 1.0000	5.23 2.15 3.50 7.65	
TOTAL DIRECT EXPENSES				351.66	
FIXED EXPENSES Implements Tractors Harvesters	acre acre acre	10.36 13.04 13.41	1.0000 1.0000 1.0000	10.36 13.04 13.41	
TOTAL FIXED EXPENSES				36.81	
TOTAL SPECIFIED EXPENSES				388.47	

Table 6.B Summary of estimated costs and returns per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30"
Non-irrigated, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	42.0000	406.14	
TOTAL INCOME				406.14	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	
HARVEST AIDS	acre	7.10	1.0000	7.10	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	7.60	1.0000	7.60	
HERBICIDES	acre	105.01	1.0000	105.01	
INSECTICIDES	acre	12.81	1.0000	12.81	
SEED/PLANTS	acre	60.00	1.0000	60.00	
ADJUVANTS	acre	3.30	1.0000	3.30	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	11.34	1.0000	11.34	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.0959	0.87	
OPERATOR LABOR			0.3794	5.55	
UNALLOCATED LABOR	hour	14.64	0.3414	5.00	
DIESEL FUEL	gal	1.53	4.8323	7.40	
REPAIR & MAINTENANCE	acre	10.88	1.0000	10.88	
INTEREST ON OP. CAP.	acre	7.65	1.0000	7.65	
TOTAL DIRECT EXPENSES			·	351.66	
RETURNS ABOVE DIRECT EXI	PENSES			54.48	
TOTAL FIXED EXPENSES				36.81	
TOTAL SPECIFIED EXPENSES	5		-	388.47	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		17.67	

Table 6.C Estimated resource use for field operations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Non-irrigated, Delta Area, Mississippi, 2021

	SIZE/	POWER UNIT		TIMES	MENT	INPUT	TMDI DMDIT	POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								hoi	ırs	
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P205)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Disk Harrow	32 '	MFWD 225	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32 '	MFWD 225	0.046	1.00	Oct		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Valor SX	OZ					2.0000				
Surfactant	pt					0.4000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Apr		0.06	0.06	0.13	0.06
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	OZ					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	ΟZ					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Liberty 280	OZ					29.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	ΟZ					32.0000				
Zidua DF	OZ					1.5000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
Incidental Pest				1.00	Aug					
App by Air (5 gal)	appl					1.0000				
IncidentalPestTrt \$8						1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	OZ					16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	pt					0.2000				
Header -Soybean	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
Haul Soybeans	bu				_	42.0000			0.05	
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Sep		0.02	0.02	0.02	0.01

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Subsoiler	3 shank		0.72	0.39	1.14		0.09	2.34	2.01	4.35
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P2O5)		15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Disk Harrow	32'		1.09	1.50	1.71		0.17	4.47	4.85	9.32
Field Cultivate Fld	32'		0.83	0.85	1.30		0.12	3.10	4.14	7.24
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	ΟZ	4.16					0.11	4.27		4.27
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Select Max	pt	12.74					0.34	13.08		13.08
Valor SX	OZ	9.02					0.24	9.26		9.26
Surfactant	pt	1.32					0.04	1.36		1.36
Plant & Pre-Folding	12R-30		1.20	2.55	2.49		0.12	6.36	6.79	13.15
Soybean Enlist E3	lb	60.00					1.20	61.20		61.20
CruiserMaxx Vibrance	OZ	7.60					0.15	7.75		7.75
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.44	22.58		22.58
Gramoxone SL 2.0	OZ	9.12					0.18	9.30		9.30
Surfactant	pt	1.32					0.03	1.35		1.35
Soybeans Consultant	acre	6.50					0.11	6.61		6.61
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Liberty 280	OZ	12.76					0.21	12.97		12.97
Dual Magnum	pt	13.33					0.22	13.55		13.55
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 31bs a.e	ΟZ	4.16					0.07	4.23		4.23
Zidua DF	ΟZ	13.08					0.22	13.30		13.30
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Acephate 90SP	lb	4.81					0.03	4.84		4.84
Incidental Pest										
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8		8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Gramoxone SL	OZ	3.04					0.02	3.06		3.06
Sodium Chlorate 5L	gal	4.06					0.03	4.09		4.09
Surfactant	pt	0.66					0.00	0.66		0.66
Header -Soybean	30' Flex	0.00	2.18	4.43	2.37		0.03	9.01	14.76	23.77
Haul Soybeans	bu	11.34	2.10	7.75	2.51		0.03	11.38	17.10	11.38
Grain Cart Soybean	700 bu	11.54	0.38	0.40	0.59		0.04	1.37	1.36	2.73
TOTALS		314.31	7.40	10.88	11.42	0.00	7.65	351.66	36.81	388.47

Table 6.E Estimated monthly income and expense flows per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Non-irrigated, Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	406.14
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	30.42	0.00	31.26	43.33	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.81	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.34
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.15	0.00	0.00	0.00	0.00	0.00	2.49	1.82	0.00	0.00	0.00	2.96
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.64	0.00	0.00	0.00	0.00	0.00	1.20	1.00	0.00	0.00	0.00	2.56
REPAIR & MAINTENANCE	2.74	0.00	0.00	0.00	0.00	0.00	2.55	0.76	0.00	0.00	0.00	4.83
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	1.04	0.00	2.15	0.89	0.00	0.00	0.28	0.07
TOTAL DIRECT EXPENSES	83.85	0.00	0.00	0.00	39.78	0.00	110.12	54.30	0.00	0.00	41.85	21.76
NET INCOME	-83.85	0.00	0.00	0.00	-39.78	0.00	-110.12	-54.30	0.00	0.00	-41.85	384.38
NET INCOME TO DATE	-83.85	-83.85	-83.85	-83.85	-123.63	-123.63	-233.75	-288.05	-288.05	-288.05	-329.90	54.48

^{*} Lease costs are based on hourly usage costs.

Table 6.F Estimated returns for various price/yield combinations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30"
Non-irrigated, Delta Area, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95 PR	100	105 CE	110	115	120	125
Soybeans	5		7.25	7.73	8.21			9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT					d	ollars					
50	21.00	bu	-193 -230	-183 -220	-173 -210	-163 -200	-153 -189	-142 -179	-132 -169	-122 -159	-112 -149	-102 -139	-92 -128
60	25.20	bu	-164 -201	-152 -188	-139 -176	-127 -164	-115 -152	-103 -140	-91 -128	-79 -115	-66 -103	-54 -91	-42 -79
70	29.40	bu	-135 -171	-120 -157	-106 -143	-92 -129	-78 -114	-63 -100	-49 -86	-35 -72	-21 -58	-7 -43	7 -29
80	33.60	bu	-105 -142	-89 -126	-73 -110	-56 -93	-40 -77	-24 -61	-8 -45	8 -28	24 -12	40 3	56 19
90	37.80	bu	-76 -113	-58 -94	-39 -76	-21 -58	-3 -40	15 -21	33 -3	51 14	69 33	88 51	106 69
100	42.00	bu	-47 -83	-26 -63	-6 -43	13 -22	34 -2	54 17	74 37	95 58	115 78	135 98	156 119
110	46.20	bu	-17 -54	4 -32	26 -9	49 12	71 34	93 57	116 79	138 101	160 124	183 146	205 168
120	50.40	bu	11 -25	35 -0	60 23	8 4 4 7	109 72	133 96	157 120	182 145	206 169	230 194	255 218
130	54.60	bu	4 0 4	67 30	93 56	120 83	146 109	172 136	199 162	225 188	252 215	278 241	304 268
140	58.80	bu	70 33	98 61	127 90	155 118	183 147	212 175	240 204	269 232	297 260	326 289	354 317
150	63.00	bu	99 62	130 93	160 123	190 154	221 184	251 215	282 245	312 275	343 306	373 336	404 367

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 7.A Estimated costs per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

Furrow Irriga	.eu, 9	ac-III., De	ila Alea,	ытаатаатЫ	01, 2021
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIDECT EVDENCEC		dollars		dollars	
CUSTOM SPRAY	a.a.c. 1	7 00	E 0000	25 00	
App by Air (5 gal) HARVEST AIDS	appl	7.00	5.0000	35.00	
Gramoxone SL Sodium Chlorate 5L	oz gal	0.19 6.77	16.0000	3.04 4.06	
FERTILIZERS Phosphorus (46% P205)	cwt.	17.31	0.8700	15.06	
Potash (60% K20) FUNGICIDES	cwt	22.11	1.3300	29.41	
CruiserMaxx Vibrance		4.75	1.6000	7.60	
Miravis Top HERBICIDES	ΟZ	1.44	13.7000	19.73	
Glyphosate 31bs a.e 2,4-D Amine 4	oz pt	0.13 2.25	64.0000 2.0000	8.32 4.50	
Select Max Valor SX	pt oz	12.74 4.51	1.0000 2.0000	12.74 9.02	
Boundary	pt	11.07	2.0000	22.14	
Gramoxone SL 2.0 Liberty 280	OZ OZ	0.19 0.44	48.0000 29.0000	9.12 12.76	
Dual Māgnum Zidua DF	pt oz	13.33 8.72	1.0000	13.33 13.08	
INSECTICIDES					
Acephate 90SP IncidentalPestTrt \$8	lb acre	6.42 8.00	0.7500 1.0000	4.81 8.00	
IRRIGATION SUPPLIES Roll-Out Pipe	ft	0.24	33.0000	7.92	
SEED/PLANTS Soybean Enlist E3	lb	1.20	50.0000	60.00	
ADJUVANTS Surfactant		3.30	1.1000	3.63	
CUSTOM FERTILIZE	pt				
Custom Apply Fert HAULING	acre	7.50	1.0000	7.50	
Haul Soybeans CUSTOM LIME	bu	0.27	60.0000	16.20	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.3330	15.80	
Soybeans Consultant INOCULANT	acre	6.50	1.0000	6.50	
Inoculant -Soybean	acre	1.55	1.0000	1.55	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.4536	6.65	
Harvesters IRRIGATE LABOR	hour	14.68	0.0851	1.25	
Special Labor	hour	9.06	0.3000	2.73	
Implements HAND LABOR	hour	9.06	0.0625	0.57	
Implements UNALLOCATED LABOR	hour hour	9.06 14.65	0.0959 0.4142	0.87 6.07	
DIESEL FUEL Tractors	gal	1.53	5.0709	7.77	
Harvesters Roll-Out Pipe Irr.	gal	1.53 1.53	1.4243 7.3316	2.18 11.22	
REPAIR & MAINTENANCE	-				
Implements Tractors	acre acre	6.18 3.17	1.0000	6.18 3.17	
Harvesters Roll-Out Pipe Irr.	acre acre	3.50 7.16	1.0000	3.50 7.16	
INTEREST ON OP. CAP.	acre	8.56	1.0000	8.56	
TOTAL DIRECT EXPENSES				422.03	
FIXED EXPENSES Implements	acro	13 55	1.0000	13.55	
Tractors	acre acre	13.55 19.27	1.0000	19.27	
Harvesters Roll-Out Pipe Irr.	acre	13.41 51.84	1.0000	13.41 51.84	
	acre	JI.04	1.0000		
TOTAL FIXED EXPENSES				98.07	
TOTAL SPECIFIED EXPENSES				520.10	

Table 7.B Summary of estimated costs and returns per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	60.0000	580.20	
TOTAL INCOME				580.20	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	35.00	1.0000	35.00	
HARVEST AIDS	acre	7.10	1.0000	7.10	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	27.33	1.0000	27.33	
HERBICIDES	acre	105.01	1.0000	105.01	
INSECTICIDES	acre	12.81	1.0000	12.81	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	60.00	1.0000	60.00	
ADJUVANTS	acre	3.63	1.0000	3.63	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	16.20	1.0000	16.20	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.0959	0.87	
IRRIGATE LABOR	hour	9.06	0.3625	3.30	
OPERATOR LABOR	hour	14.68	0.5388	7.90	
UNALLOCATED LABOR	hour	14.65	0.4142	6.07	
DIESEL FUEL	gal	1.53	13.8269	21.17	
REPAIR & MAINTENANCE	acre	20.01	1.0000	20.01	
INTEREST ON OP. CAP.	acre	8.56	1.0000	8.56	
TOTAL DIRECT EXPENSES				422.03	
RETURNS ABOVE DIRECT EXE	PENSES			158.17	
TOTAL FIXED EXPENSES				98.07	
TOTAL SPECIFIED EXPENSES	3			520.10	
RETURNS ABOVE TOTAL SPEC	CIFIED 1	EXPENSES		60.10	

Table 7.C Estimated resource use for field operations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								no	urs	
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P205)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Disk Harrow	32'	MFWD 225	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 225	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Bed/Lister-Roll-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Valor SX	OZ					2.0000				
Surfactant	pt					0.4000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Apr	0.1000	0.06	0.06	0.13	0.06
Soybean Enlist E3	lb	111 113 220	0.007	1.00	12-	50.0000	0.00	0.00	0.10	0.00
CruiserMaxx Vibrance						1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	OZ					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Liberty 280	OZ				1	29.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60 ¹	MFWD 225	0.028	1.00	Mav		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	OZ				- 4	32.0000				
Zidua DF	OZ					1.5000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	OZ					13.7000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb				- 3	0.7500				
Incidental Pest				1.00	Aug					
App by Air (5 gal)	appl				- 3	1.0000				
IncidentalPestTrt \$8						1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	OZ					16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	pt					0.2000				
Header -Soybean	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
Haul Soybeans	bu	· · ·	-		1	60.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Sep		0.02	0.02	0.02	0.01
Roll-Out Pipe Irr.	acre			_,,,,	Jul	1.0000	0.07	0.07	0.44	2.01
						, , , , ,				
TOTALS							0.53	0.53	0.99	0.41

Table 7.D Estimated costs for field operations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
	3 shank	3.33	0.72	0 20	1 1 1		0.13	2.34	0 01	4.35
Subsoiler		15.80	0.72	0.39	1.14		0.63	16.43	2.01	16.43
Lime (Spread)	ton						0.83	7.80		7.80
Custom Apply Fert	acre	7.50 15.06					0.60	15.66		15.66
Phosphorus (46% P2O5) Potash (60% K2O)	cwt cwt	29.41					1.18	30.59		30.59
Disk Harrow	32'	29.41	1.09	1 50	1 71				4 0 5	
	~ =			1.50	1.71		0.17	4.47	4.85	9.32
Field Cultivate Fld	32'		0.83	0.85	1.30		0.12	3.10	4.14	7.24
Bed/Lister-Roll-Fo	12R-30	7 00	1.43	1.35	2.26		0.20	5.24	5.54	10.78
App by Air (5 gal)	appl	7.00						7.19		7.19
Glyphosate 31bs a.e	OZ	4.16					0.11	4.27		4.27
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Select Max	pt	12.74					0.34	13.08		13.08
Valor SX	OZ	9.02					0.24	9.26		9.26
Surfactant	pt	1.32	4 00				0.04	1.36		1.36
Plant & Pre-Folding	12R-30		1.20	2.55	2.49		0.12	6.36	6.79	13.15
Soybean Enlist E3	lb	60.00					1.20	61.20		61.20
CruiserMaxx Vibrance		7.60					0.15	7.75		7.75
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.44	22.58		22.58
Gramoxone SL 2.0	ΟZ	9.12					0.18	9.30		9.30
Surfactant	pt	1.32					0.03	1.35		1.35
Soybeans Consultant	acre	6.50					0.11	6.61		6.61
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Liberty 280	ΟZ	12.76					0.21	12.97		12.97
Dual Magnum	pt	13.33					0.22	13.55		13.55
Spray (Broadcast)	60'		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 31bs a.e	OZ	4.16					0.07	4.23		4.23
Zidua DF	OZ	13.08					0.22	13.30		13.30
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Miravis Top	ΟZ	19.73					0.20	19.93		19.93
Surfactant	pt	0.33						0.33		0.33
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Acephate 90SP	lb	4.81					0.03	4.84		4.84
Incidental Pest										
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8	acre	8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Gramoxone SL	OZ	3.04					0.02	3.06		3.06
Sodium Chlorate 5L	gal	4.06					0.03	4.09		4.09
Surfactant	pt	0.66						0.66		0.66
Header -Soybean	30' Flex		2.18	4.43	2.37		0.03	9.01	14.76	23.77
Haul Soybeans	bu	16.20					0.05	16.25		16.25
Grain Cart Soybean	700 bu	_0.20	0.38	0.40	0.59		- • • • •	1.37	1.36	2.73
Roll-Out Pipe Irr.	acre	7.92	12.34	7.78	4.46		0.43	32.93	55.72	88.65
TOTALS		354.15	21.17	20.01	18.14	0.00	8.56	422.03	98.07	520.10

Note: Cost of production estimates are based on 2020 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. Fertilization decisions should be based on

soil tests. Soil test cost is prorated for a test every 3^{rd} year. Lime cost prorated for application every 3^{rd} year. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 7.E Estimated monthly income and expense flows per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	580.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	19.73	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	30.42	0.00	31.26	43.33	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.81	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.33	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.20
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.97	0.00	0.00	0.00	0.00	0.00	2.49	2.05	2.82	0.23	0.00	3.58
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	4.64	0.00	0.00	0.00	0.00	0.00	1.20	1.00	7.78	3.74	0.00	2.81
REPAIR & MAINTENANCE	4.39	0.00	0.00	0.00	0.00	0.00	2.55	0.76	5.93	1.40	0.00	4.98
INTEREST ON OP. CAP.	3.48	0.00	0.00	0.00	1.04	0.00	2.15	0.89	0.32	0.32	0.28	0.08
TOTAL DIRECT EXPENSES	90.58	0.00	0.00	0.00	39.78	0.00	110.12	54.53	24.77	32.75	41.85	27.65
NET INCOME	-90.58	0.00	0.00	0.00	-39.78	0.00	-110.12	-54.53	-24.77	-32.75	-41.85	552.55
NET INCOME TO DATE	-90.58	-90.58	-90.58	-90.58	-130.36	-130.36	-240.48	-295.01	-319.78	-352.53	-394.38	158.17

^{*} Lease costs are based on hourly usage costs.

Table 7.F Estimated returns for various price/yield combinations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans	3		7.25	7.73	8.21	8.70	9.18	9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT -					d	ollars					
50	30.00	bu	-196 -294	-181 -279	-167 -265	-152 -250	-138 -236	-123 -221	-109 -207	-94 -192	-80 -178	-65 -163	-51 -149
60	36.00	bu	-154 -252	-137 -235	-119 -217	-102 -200	-84 -182	-67 -165	-50 -148	-32 -130	-15 -113	2 -95	19 -78
70	42.00	bu	-112 -210	-92 -190	-71 -170	-51 -149	-31 -129	-11 -109	9 -88	29 -68	49 -48	70 -27	90 -7
80	48.00	bu	-70 -168	-47 -145	-24 -122	-1 -99	22 - 75	45 -52	68 - 29	91 -6	115 16	138 40	161 63
90	54.00	bu	-28 -126	-2 -100	23 -74	49 -48	75 - 22	101	127 29	153 55	180 82	206 108	232 134
100	60.00	bu	13 -84	42 - 55	71 -26	100	129 31	158 60	187 89	216 118	245 147	274 176	303 205
110	66.00	bu	55 - 43	86 -11	118 20	150 52	182 84	214 116	246 148	278 180	310 212	342 244	374 276
120	72.00	bu	96 -1	131 33	166 68	201 103	236 138	270 172	305 207	340 242	375 277	410 312	445 346
130	78.00	bu	138 40	176 78	214 116	251 153	289 191	327 229	365 266	402 304	440 342	478 380	515 417
140	84.00	bu	180 82	221 123	261 163	302 204	343 245	383 285	424 326	464 366	505 407	546 448	586 488
150	90.00	bu	222 124	266 168	309 211	353 255	396 298	440 342	483 385	527 429	570 472	614 516	657 559

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 8.A Estimated costs per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

riood iirigat.	5a, 13.5		Derta Area,		PP1, 2021
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIDEOM EVDENOS		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) HARVEST AIDS	appl	7.00	4.0000	28.00	
Gramoxone SL	OZ	0.19	16.0000	3.04	
Sodium Chlorate 5L FERTILIZERS	gal	6.77	0.6000	4.06	
Phosphorus (46% P205)		17.31	0.8700	15.06	
Potash (60% K20) FUNGICIDES	cwt	22.11	1.3300	29.41	
CruiserMaxx Vibrance Miravis Top	OZ OZ	4.75 1.44	1.6000 13.7000	7.60 19.73	
HERBICIDES					
Glyphosate 31bs a.e Select Max	oz pt	0.13 12.74	64.0000 1.0000	8.32 12.74	
Valor SX	OZ	4.51	2.0000	9.02	
Boundary Gramoxone SL 2.0	pt oz	11.07 0.19	2.0000 48.0000	22.14 9.12	
Liberty 280	ΟZ	0.44	29.0000	12.76	
Dual Magnum INSECTICIDES	pt	13.33	1.0000	13.33	
Acephate 90SP	lb	6.42	0.7500	4.81	
IncidentalPestTrt \$8 SEED/PLANTS	acre	8.00	1.0000	8.00	
Soybean Enlist E3	lb	1.20	50.0000	60.00	
ADJUVANTS Surfactant	pt	3.30	1.1000	3.63	
CUSTOM FERTILIZE Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING	_				
Haul Soybeans SURVEY & MARK LEVEES	bu	0.27	53.0000	14.31	
Survey & Mark Levees CUSTOM LIME	acre	4.50	0.5000	2.25	
Lime (Spread)	ton	47.45	0.3330	15.80	
CROP CONSULTANT Soybeans Consultant	acre	6.50	1.0000	6.50	
INOCŪLANT Inoculant -Soybean	acre	1.55	1.0000	1.55	
SOIL TEST					·
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters	hour hour	14.68 14.68	0.4377 0.0851	6.37 1.25	
IRRIGATE LABOR	nour				
Special Labor HAND LABOR	hour	9.06	0.3125	2.82	
Implements	hour	9.06	0.1100	1.00	
UNALLOCATED LABOR DIESEL FUEL	hour	14.61	0.2880	4.21	
Tractors	gal	1.53	4.4959	6.90	
Harvesters Contour Flood Irr.	gal gal	1.53 1.53	1.4243 10.9974	2.18 16.83	
REPAIR & MAINTENANCE	-				
Implements Tractors	acre	5.09 2.73	1.0000	5.09 2.73	
Harvesters	acre	3.50	1.0000	3.50	
Contour Flood Irr. INTEREST ON OP. CAP.	acre acre	14.31 8.18	1.0000	14.31 8.18	
			_		
TOTAL DIRECT EXPENSES FIXED EXPENSES				397.38	
Implements	acre	9.53	1.0000	9.53	
Tractors Harvesters	acre acre	16.59 13.41	1.0000 1.0000	16.59 13.41	
Contour Flood Irr.	acre	41.43	1.0000	41.43	
TOTAL FIXED EXPENSES			_	80.96	
TOTAL SPECIFIED EXPENSES			_	478.34	
				1.0.01	

Table 8.B Summary of estimated costs and returns per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	53.0000	512.51	
TOTAL INCOME				512.51	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	
HARVEST AIDS	acre	7.10	1.0000	7.10	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	27.33	1.0000	27.33	
HERBICIDES	acre	87.43	1.0000	87.43	
INSECTICIDES	acre	12.81	1.0000	12.81	
SEED/PLANTS	acre	60.00	1.0000	60.00	
ADJUVANTS	acre	3.63	1.0000	3.63	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	14.31	1.0000	14.31	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1100	1.00	
IRRIGATE LABOR	hour	9.06	0.3125	2.82	
OPERATOR LABOR	hour	14.68	0.5229	7.62	
UNALLOCATED LABOR	hour	14.61	0.2880	4.21	
DIESEL FUEL	gal	1.53	16.9177	25.91	
REPAIR & MAINTENANCE	acre	25.63	1.0000	25.63	
INTEREST ON OP. CAP.	acre	8.18	1.0000	8.18	
TOTAL DIRECT EXPENSES				397.38	
RETURNS ABOVE DIRECT EXP	PENSES			115.13	
TOTAL FIXED EXPENSES				80.96	
TOTAL SPECIFIED EXPENSES	5			478.34	
RETURNS ABOVE TOTAL SPEC	CIFIED E	XPENSES		34.17	

Table 8.C Estimated resource use for field operations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

	SIZE/	POWER UNIT		TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Nov	0.3330				
Disk Harrow	32'	MFWD 225	0.061	1.00	Nov		0.06	0.06	0.06	0.05
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P2O5)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	OZ					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Valor SX	OZ					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	OZ					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	OZ					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Liberty 280	OZ				-	29.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	OZ					32.0000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	OZ					13.7000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb				_	0.7500				
Incidental Pest				1.00	Sep					
App by Air (5 gal)	appl				-	1.0000				
IncidentalPestTrt \$8						1.0000				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Gramoxone SL	OZ				-	16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	pt					0.2000				
Header -Soybean	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
Haul Soybeans	bu	•				53.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
Contour Flood Irr.	acre				Jul	1.0000	0.20	0.20	0.51	
TOTALS							0.52	0.52	0.94	0.28

Table 8.D Estimated costs for field operations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
<u> </u>						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Disk Harrow	32'		1.09	1.50	1.71		0.17	4.47	4.85	9.32
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P2O5)	cwt	15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.05	1.84	1.45	3.29
Glyphosate 31bs a.e	OZ	4.16					0.12	4.28		4.28
Select Max	pt	12.74					0.38	13.12		13.12
Surfactant	pt	1.32					0.04	1.36		1.36
Valor SX	OZ	9.02					0.27	9.29		9.29
Soybeans Consultant	acre	6.50					0.13	6.63		6.63
Plant & Pre-Folding	12R-30		1.20	2.55	2.49		0.12	6.36	6.79	13.15
Sovbean Enlist E3	lb	60.00	1.20	2.00	2.13		1.20	61.20	0.,5	61.20
CruiserMaxx Vibrance		7.60					0.15	7.75		7.75
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.44	22.58		22.58
Gramoxone SL 2.0	OZ.	9.12					0.18	9.30		9.30
Surfactant	pt	1.32					0.03	1.35		1.35
Spray (Broadcast)	60'	1.32	0.50	0.38	0.91		0.03	1.83	1.45	3.28
<u> </u>		10 76	0.50	0.30	0.91		0.04	13.02	1.45	13.02
Liberty 280	OZ	12.76								
Dual Magnum	pt 60'	13.33	0 50	0 20	0 01		0.27	13.60	1 45	13.60
Spray (Broadcast)		4 1 6	0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 3lbs a.e	oz	4.16					0.07	4.23		4.23
App by Air (5 gal)	appl	7.00					0.09	7.09		7.09
Miravis Top	OZ	19.73					0.26	19.99		19.99
Surfactant	pt	0.33						0.33		0.33
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Acephate 90SP	lb	4.81					0.05	4.86		4.86
Incidental Pest										
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8	acre	8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Gramoxone SL	OZ	3.04					0.02	3.06		3.06
Sodium Chlorate 5L	gal	4.06					0.03	4.09		4.09
Surfactant	pt	0.66						0.66		0.66
Header -Soybean	30' Flex		2.18	4.43	2.37		0.03	9.01	14.76	23.77
Haul Soybeans	bu	14.31					0.05	14.36		14.36
Grain Cart Soybean	700 bu		0.38	0.40	0.59			1.37	1.36	2.73
Contour Flood Irr.	acre	2.25	19.56	15.61	5.76		0.61	43.79	48.85	92.64
TOTALS		322.01	25.91	25.63	15.65	0.00	8.18	397.38	80.96	478.34

Table 8.E Estimated monthly income and expense flows per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	512.51
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	7.00	14.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	19.73	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	25.92	0.00	0.00	57.35	4.16	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.81	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	0.00	0.00	1.32	0.00	0.33	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.31
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	1.71	0.00	0.00	0.91	0.00	0.00	3.85	2.78	1.63	1.63	0.18	2.96
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.09	0.00	0.00	0.50	0.00	0.00	1.70	7.11	6.39	6.39	0.17	2.56
REPAIR & MAINTENANCE	1.50	0.00	0.00	0.38	0.00	0.00	2.93	9.57	3.17	3.17	0.08	4.83
INTEREST ON OP. CAP.	3.01	0.00	0.00	0.86	0.00	0.00	2.86	0.43	0.50	0.24	0.20	0.08
TOTAL DIRECT EXPENSES	78.41	0.00	0.00	29.89	0.00	0.00	145.66	26.30	38.75	23.24	30.39	24.74
NET INCOME	-78.41	0.00	0.00	-29.89	0.00	0.00	-145.66	-26.30	-38.75	-23.24	-30.39	487.77
NET INCOME TO DATE	-78.41	-78.41	-78.41	-108.30	-108.30	-108.30	-253.96	-280.26	-319.01	-342.25	-372.64	115.13

^{*} Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre Soybeans, full-season, Enlist E3, stale seedbed, 12R30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95 	100	105 CE	110	115	120	125
Soybeans	5		7.25	7.73	8.21			9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT					d	ollars					
50	26.50	bu	-198 -278	-185 -266	-172 -253	-159 -240	-146 -227	-133 -214	-121 -202	-108 -189	-95 -176	-82 -163	-69 -150
60	31.80	bu	-161 -241	-145 -226	-130 -211	-114 -195	-99 -180	-84 -165	-68 -149	-53 -134	-38 -118	-22 -103	-7 -88
70	37.10	bu	-124 -204	-106 -187	-88 -169	-70 -151	-52 -133	-34 -115	-16 -97	1 -79	19 -61	37 -43	55 -25
80	42.40	bu	-87 -167	-66 -147	-46 -126	-25 -106	-5 -85	15 -65	36 -44	56 -24	77 -3	97 16	118 37
90	47.70	bu	-50 -130	-26 -107	-3 -84	19 -61	42 -38	65 -15	88 7	111 30	134 53	157 76	180 99
100	53.00	bu	-12 -93	12 -68	38 -42	63 -17	8 9 8	115 34	140 59	166 85	192 111	217 136	243 162
110	58.30	bu	24 -56	52 - 28	80 -0	108 27	136 55	164 83	193 112	221 140	249 168	277 196	305 224
120	63.60	bu	61 -19	91 10	122 41	153 72	184 103	214 133	245 164	276 195	307 226	337 256	368 287
130	68.90	bu	98 17	131 50	164 83	197 116	231 150	264 183	297 216	331 250	364 283	397 316	431 350
140	74.20	bu	135 54	170 89	206 125	242 161	278 197	314 233	350 269	386 305	422 341	457 376	493 412
150	79.50	bu	172 91	210 129	248 167	287 206	325 244	364 283	402 321	441 360	479 398	517 436	556 475

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 9.A Estimated costs per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

TIVOC TITIGAC	ca, 7.0	ac 111., A	111 111 000,	TITOUTUUTPE	,1, 2021
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY	_				
App by Air (5 gal) FERTILIZERS	appl	7.00	4.0000	28.00	
Phosphorus(46% P205) Potash (60% K20)	cwt cwt	17.31 22.11	0.8700 1.3300	15.06 29.41	
FUNGICIDES CruiserMaxx Vibrance	07	4.75	1.6000	7.60	
Miravis Top HERBICIDES	oz	1.44	13.7000	19.73	
Boundary	pt	11.07	2.0000	22.14	
Gramoxone SL 2.0	ΟZ	0.19	48.0000	9.12	
Liberty 280 Dual Magnum	oz pt	0.44 13.33	29.0000 1.0000	12.76 13.33	
INSECTICIDES	PC	13.33	1.0000	13.33	
Acephate 90SP	lb	6.42	0.7500	4.81	
Prevathon	OZ	1.05	14.0000	14.70	
Bifenthrin IncidentalPestTrt \$8	oz acre	0.94 8.00	6.4000 1.0000	6.02 8.00	
SEED/PLANTS	acic	0.00	1.0000	0.00	
Soybean Enlist E3 ADJUVANTS	lb	1.20	50.0000	60.00	
Surfactant CUSTOM FERTILIZE	pt	3.30	0.6000	1.98	
Custom Apply Fert HAULING	acre	7.50	1.0000	7.50	
Haul Soybeans CUSTOM LIME	bu	0.27	50.0000	13.50	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.3330	15.80	
Soybeans Consultant INOCULANT	acre	6.50	1.0000	6.50	
Inoculant -Soybean	acre	1.55	1.0000	1.55	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.1171	1.71	
Harvesters IRRIGATE LABOR	hour	14.68	0.1021	1.50	
Special Labor HAND LABOR	hour	9.06	0.0518	0.47	
Implements	hour	9.06	0.0817	0.74	
UNALLOCATED LABOR DIESEL FUEL	hour	14.68	0.1886	2.77	
Tractors	gal	1.53	1.3567	2.08	
Harvesters 1/2-mi Pivot Irr.	gal gal	1.53 1.53	1.3935 16.4057	2.13 25.10	
REPAIR & MAINTENANCE	yaı	1.33	10.4037	23.10	
Implements	acre	3.40	1.0000	3.40	
Tractors	acre	0.85	1.0000	0.85	
Harvesters 1/2-mi Pivot Irr.	acre	4.16 12.00	1.0000	4.16 12.00	
INTEREST ON OP. CAP.	acre	6.53	1.0000	6.53	
TOTAL DIRECT EXPENSES FIXED EXPENSES				364.28	
Implements	acre	5.75	1.0000	5.75	
Tractors	acre	5.19	1.0000	5.19	
Harvesters 1/2-mi Pivot Irr.	acre	15.93 40.89	1.0000	15.93 40.89	
1/2-mi Fivor itt.	acre	40.03	1.0000	40.09	
TOTAL FIXED EXPENSES				67.76	
TOTAL SPECIFIED EXPENSES				432.04	

Table 9.B Summary of estimated costs and returns per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME				= .	
Soybeans	bu	9.67	50.0000	483.50	
TOTAL INCOME				483.50	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	27.33	1.0000	27.33	
HERBICIDES	acre	57.35	1.0000		
INSECTICIDES	acre	33.53	1.0000	33.53	
SEED/PLANTS	acre	60.00		60.00	
ADJUVANTS	acre	1.98	1.0000	1.98	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	13.50	1.0000	13.50	
CUSTOM LIME	acre	15.80	1.0000		
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.0817	0.74	
IRRIGATE LABOR	hour	9.06	0.0518	0.47	
OPERATOR LABOR	hour	14.68	0.2193	3.21	
UNALLOCATED LABOR	hour	14.68	0.1886	2.77	
DIESEL FUEL	gal	1.53	19.1560	29.31	
REPAIR & MAINTENANCE	acre	20.41	1.0000	20.41	
INTEREST ON OP. CAP.	acre	6.53	1.0000	6.53	
TOTAL DIRECT EXPENSES				364.28	
RETURNS ABOVE DIRECT EXE	PENSES			119.22	
TOTAL FIXED EXPENSES				67.76	
TOTAL SPECIFIED EXPENSES	3			432.04	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		51.46	

Table 9.C Estimated resource use for field operations, per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

	SIZE/	POWER UNIT	I DIVI	TIMES		INPUT		POWER	ALLOC	UNALI
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								hou	ırs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P2O5)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Jun		0.06	0.06	0.13	0.05
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	ΟZ					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	OZ					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul	0.1000	0.02	0.02	0.04	0.02
Liberty 280	OZ	111 112 220	0.020	1.00	0 4 1	29.0000	0.02	0.02	0.01	0.02
Dual Magnum	pt					1.0000				
App by Air (5 gal)	appl			1.00	Αιια	1.0000				
Miravis Top	OZ			1.00	1149	13.7000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb			1.00	1149	0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Prevathon	OZ			1.00	1149	14.0000				
Surfactant	pt					0.1000				
Bifenthrin	oz					6.4000				
Incidental Pest	02			1.00	con	0.4000				
App by Air (5 gal)	annl			1.00	sep	1.0000				
IncidentalPestTrt \$8	appl					1.0000				
	acre 25' Flex	265 hm	0 102	1 00	0.0+	1.0000	0 10	0 10	0 10	0 00
Header -Soybean		265 hp	0.102	1.00	UCL	E0 0000	0.10	0.10	0.10	0.08
Haul Soybeans	bu	MEDID OOF	0 001	1 00	0	50.0000	0 00	0 00	0 00	0 01
2	700 bu	MFWD 225	0.021	1.00	Oct	1 0000	0.02	0.02	0.02	0.01
1/2-mi Pivot Irr.	acre				Jul	1.0000			0.05	
TOTALS							0.21	0.21	0.35	0.18

Table 9.D Estimated costs for field operations, per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					(dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P205)	cwt	15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Soybeans Consultant	acre	6.50					0.13	6.63		6.63
Plant & Pre-Folding	12R-30		1.20	2.55	2.45		0.10	6.30	6.79	13.09
Soybean Enlist E3	lb	60.00					1.00	61.00		61.00
CruiserMaxx Vibrance	OZ	7.60					0.13	7.73		7.73
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.37	22.51		22.51
Gramoxone SL 2.0	OZ	9.12					0.15	9.27		9.27
Surfactant	pt	1.32					0.02	1.34		1.34
Spray (Broadcast)	60 '		0.50	0.38	0.90		0.02	1.80	1.45	3.25
Liberty 280	OZ	12.76					0.17	12.93		12.93
Dual Magnum	pt	13.33					0.18	13.51		13.51
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Miravis Top	OZ	19.73					0.20	19.93		19.93
Surfactant	pt	0.33						0.33		0.33
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Acephate 90SP	lb	4.81					0.05	4.86		4.86
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Prevathon	OZ	14.70					0.15	14.85		14.85
Surfactant	pt	0.33						0.33		0.33
Bifenthrin	OZ	6.02					0.06	6.08		6.08
Incidental Pest										
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8		8.00					0.05	8.05		8.05
Header -Soybean	25' Flex		2.13	5.08	2.79		0.03	10.03	17.27	27.30
Haul Soybeans	bu	13.50					0.05	13.55		13.55
Grain Cart Soybean	700 bu		0.38	0.40	0.58			1.36	1.36	2.72
1/2-mi Pivot Irr.	acre		25.10	12.00	0.47		0.54	38.11	40.89	79.00
TOTALS		300.84	29.31	20.41	7.19	0.00	6.53	364.28	67.76	432.04

Table 9.E Estimated monthly income and expense flows per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	483.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	7.00	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	19.73	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.26	26.09	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.53	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.66	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.50
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.49	0.95	0.04	0.00	3.37
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.73	10.54	7.53	0.00	2.51
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.96	1.29	0.68	0.00	5.48
INTEREST ON OP. CAP.	2.84	0.00	0.00	0.00	0.00	0.00	0.14	2.10	0.52	0.75	0.10	0.08
TOTAL DIRECT EXPENSES	73.94	0.00	0.00	0.00	0.00	0.00	6.98	128.01	39.39	75.92	15.10	24.94
NET INCOME	-73.94	0.00	0.00	0.00	0.00	0.00	-6.98	-128.01	-39.39	-75.92	-15.10	458.56
NET INCOME TO DATE	-73.94	-73.94	-73.94	-73.94	-73.94	-73.94	-80.92	-208.93	-248.32	-324.24	-339.34	119.22

Table 9.F Estimated returns for various price/yield combinations, per acre Soybeans, double crop after wheat, Enlist E3, 12R30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105 CE	110	115	120	125
Soybeans	3		7.25	7.73	8.21	8.70		9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT -					d	ollars					
50	25.00	bu	-176 -243	-164 -231	-152 -219	-139 -207	-127 -195	-115 -183	-103 -171	-91 -159	-79 -147	-67 -135	-55 -123
60	30.00	bu	-141 -209	-126 -194	-112 -180	-97 -165	-83 -151	-68 -136	-54 -122	-39 -107	-25 -93	-10 -78	3 -63
70	35.00	bu	-106 -174	-89 -157	-72 -140	-55 -123	-38 -106	-21 -89	-4 -72	12 -55	29 -38	45 -21	62 -4
80	40.00	bu	-71 -139	-52 -119	-32 -100	-13 -81	5 -61	25 -42	44 -23	63 -3	83 15	102 34	121 54
90	45.00	bu	-36 -104	-14 -82	6 -60	28 -39	50 -17	72 4	93 26	115 47	137 69	159 91	181 113
100	50.00	bu	-1 -69	22 -45	46 -21	70 3	95 27	119 51	143 75	167 99	191 123	215 148	240 172
110	55.00	bu	33 -34	59 -7	86 18	113 45	139 71	166 98	192 125	219 151	245 178	272 204	299 231
120	60.00	bu	68 0	97 29	126 58	155 87	184 116	213 145	242 174	271 203	300 232	329 261	358 290
130	65.00	bu	103 35	134 66	165 98	197 129	228 161	260 192	291 223	323 255	354 286	385 318	417 349
140	70.00	bu	137 70	171 104	205 137	239 171	273 205	307 239	341 273	374 307	408 340	442 374	476 408
150	75.00	bu	172 105	209 141	245 177	281 213	317 250	354 286	390 322	426 358	462 395	499 431	535 467

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 10.A Estimated costs per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Non-irrigated, All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	3.0000	21.00	
FERTILIZERS		17 01	0 0700	1 F 0 C	
Phosphorus (46% P205) Potash (60% K20)	cwt	17.31 22.11	0.8700 1.3300	15.06 29.41	
FUNGICIDES					
CruiserMaxx Vibrance HERBICIDES	ΟZ	4.75	1.6000	7.60	
Boundary	pt	11.07	2.0000	22.14	
Gramoxone SL 2.0	ΟZ	0.19	48.0000	9.12	
Liberty 280 Dual Magnum	OZ nt	0.44 13.33	29.0000	12.76 13.33	
INSECTICIDES	pt	13.33	1.0000	13.33	
Acephate 90SP	lb	6.42	0.7500	4.81	
Prevathon Bifenthrin	OZ OZ	1.05 0.94	14.0000 6.4000	14.70 6.02	
IncidentalPestTrt \$8		8.00	1.0000	8.00	
SEED/PLANTS Soybean Enlist E3	lb	1.20	50.0000	60.00	
ADJUVANTS	ID				
Surfactant CUSTOM FERTILIZE	pt	3.30	0.5000	1.65	
Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING Haul Soybeans	bu	0.27	25.0000	6.75	
CUSTOM LIME					
Lime (Spread) CROP CONSULTANT	ton	47.45	0.3330	15.80	
Soybeans Consultant	acre	6.50	1.0000	6.50	
INOCULANT Inoculant -Soybean	acre	1.55	1.0000	1.55	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR	acre				
Tractors Harvesters	hour hour	14.68 14.68	0.1171 0.1021	1.71 1.50	
HAND LABOR	nour	11.00	0.1021	1.50	
Implements	hour	9.06	0.0817	0.74	
UNALĪOCATED LABOR DIESEL FUEL	hour	14.68	0.1886	2.77	
Tractors	gal	1.53	1.3567	2.08	
Harvesters REPAIR & MAINTENANCE	gal	1.53	1.3935	2.13	
Implements	acre	3.40	1.0000	3.40	
Tractors	acre	0.85	1.0000	0.85	
Harvesters INTEREST ON OP. CAP.	acre acre	4.16 5.69	1.0000	4.16 5.69	
TOTAL DIRECT EXPENSES FIXED EXPENSES				292.06	
Implements	acre	5.75	1.0000	5.75	
Tractors	acre	5.19	1.0000	5.19	
Harvesters	acre	15.93	1.0000	15.93	
TOTAL FIXED EXPENSES				26.87	
TOTAL SPECIFIED EXPENSES				318.93	

Table 10.B Summary of estimated costs and returns per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Non-irrigated, All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	25.0000	241.75	
TOTAL INCOME				241.75	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	21.00	1.0000	21.00	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	7.60	1.0000	7.60	
HERBICIDES	acre	57.35	1.0000	57.35	
INSECTICIDES	acre	33.53	1.0000	33.53	
SEED/PLANTS	acre	60.00	1.0000	60.00	
ADJUVANTS	acre	1.65	1.0000	1.65	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	6.75	1.0000	6.75	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.0817	0.74	
OPERATOR LABOR	hour	14.68	0.2193	3.21	
UNALLOCATED LABOR	hour	14.68	0.1886	2.77	
DIESEL FUEL	gal	1.53	2.7503	4.21	
REPAIR & MAINTENANCE	acre	8.41	1.0000	8.41	
INTEREST ON OP. CAP.	acre	5.69	1.0000	5.69	
TOTAL DIRECT EXPENSES			-	292.06	
RETURNS ABOVE DIRECT EXP	ENSES			-50.31	
TOTAL FIXED EXPENSES				26.87	
TOTAL SPECIFIED EXPENSES			•	318.93	
RETURNS ABOVE TOTAL SPEC	IFIED E	XPENSES		-77.18	

Table 10.C Estimated resource use for field operations, per acre Soybeans, double crop after wheat, Enlist E3, 12R30"
Non-irrigated, All Areas, Mississippi, 2021

	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								hoi	ırs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P205)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Jun		0.06	0.06	0.13	0.05
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	OZ					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	OZ					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Liberty 280	OZ					29.0000				
Dual Magnum	pt					1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Prevathon	OZ					14.0000				
Surfactant	pt					0.1000				
Bifenthrin	OZ					6.4000				
Incidental Pest				1.00	Sep					
App by Air (5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu					25.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.21	0.21	0.30	0.18

Table 10.D Estimated costs for field operations, per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Non-irrigated, All Areas, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P2O5)	cwt	15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Soybeans Consultant	acre	6.50					0.13	6.63		6.63
Plant & Pre-Folding	12R-30		1.20	2.55	2.45		0.10	6.30	6.79	13.09
Soybean Enlist E3	lb	60.00					1.00	61.00		61.00
CruiserMaxx Vibrance	e oz	7.60					0.13	7.73		7.73
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.37	22.51		22.51
Gramoxone SL 2.0	OZ	9.12					0.15	9.27		9.27
Surfactant	pt	1.32					0.02	1.34		1.34
Spray (Broadcast)	60'		0.50	0.38	0.90		0.02	1.80	1.45	3.25
Liberty 280	ΟZ	12.76					0.17	12.93		12.93
Dual Magnum	pt	13.33					0.18	13.51		13.51
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Acephate 90SP	lb	4.81					0.05	4.86		4.86
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Prevathon	OZ	14.70					0.15	14.85		14.85
Surfactant	pt	0.33						0.33		0.33
Bifenthrin	ΟZ	6.02					0.06	6.08		6.08
Incidental Pest										
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8	acre	8.00					0.05	8.05		8.05
Header -Soybean	25' Flex		2.13	5.08	2.79		0.03	10.03	17.27	27.30
Haul Soybeans	bu	6.75					0.02	6.77		6.77
Grain Cart Soybean	700 bu		0.38	0.40	0.58			1.36	1.36	2.72
TOTALS		267.03	4.21	8.41	6.72	0.00	5.69	292.06	26.87	318.93

Table 10.E Estimated monthly income and expense flows per acre Soybeans, double crop after wheat, Enlist E3, 12R30" Non-irrigated, All Areas, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
-						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	241.75
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	7.00	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.26	26.09	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.53	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.33	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.75
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	0.90	0.00	0.00	3.37
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.50	0.00	0.00	2.51
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	0.38	0.00	0.00	5.48
INTEREST ON OP. CAP.	2.84	0.00	0.00	0.00	0.00	0.00	0.13	1.80	0.37	0.40	0.10	0.05
TOTAL DIRECT EXPENSES	73.94	0.00	0.00	0.00	0.00	0.00	6.63	109.73	28.24	40.26	15.10	18.16
NET INCOME	-73.94	0.00	0.00	0.00	0.00	0.00	-6.63	-109.73	-28.24	-40.26	-15.10	223.59
NET INCOME TO DATE	-73.94	-73.94	-73.94	-73.94	-73.94	-73.94	-80.57	-190.30	-218.54	-258.80	-273.90	-50.31

Table 10.F Estimated returns for various price/yield combinations, per acre Soybeans, double crop after wheat, Enlist E3, 12R30"
Non-irrigated, All Areas, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105 CE	110	115	120	125
Soybeans	3		7.25	7.73	8.21	8.70		9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT -					d	ollars					
50	12.50	bu	-198	-191	-185	-179	-173	-167	-161	-155	-149	-143	-137
			-224	-218	-212	-206	-200	-194	-188	-182	-176	-170	-164
60	15.00	bu	-180	-173	-166	-158	-151	-144	-137	-129	-122	-115	-108
			-207	-200	-192	-185	-178	-171	-163	-156	-149	-142	-134
70	17.50	bu	-163	-154	-146	-137	-129	-120	-112	-103	-95	-86	-78
			-189	-181	-173	-164	-156	-147	-139	-130	-122	-113	-105
80	20.00	bu	-145	-135	-126	-116	-106	-97	-87	-77	-68	-58	-48
			-172	-162	-153	-143	-133	-124	-114	-104	-95	-85	- 75
90	22.50	bu	-128	-117	-106	- 95	-84	- 73	-62	-52	-41	-30	-19
			-155	-144	-133	-122	-111	-100	-89	-78	-68	-57	-46
100	25.00	bu	-110	-98	-86	-74	-62	- 50	-38	-26	-14	-1	10
			-137	-125	-113	-101	-89	-77	-65	-53	-40	-28	-16
110	27.50	bu	-93	-79	-66	-53	-40	-26	-13	-0	13	26	39
			-120	-106	-93	-80	-66	-53	-40	-27	-13	-0	12
120	30.00	bu	- 75	-61	-46	-32	-17	-3	11	25	40	54	69
			-102	-88	-73	-59	-44	-30	-15	-1	13	27	42
130	32.50	bu	-58	-42	-26	-11	4	20	35	51	67	83	98
			-85	-69	-53	-38	-22	-6	9	24	40	56	71
140	35.00	bu	-40	-24	-7	9	26	43	60	77	94	111	128
			-67	-50	-33	-17	-0	16	33	50	67	84	101
150	37.50	bu	-23	-5	12	30	49	67	85	103	121	139	157
			-50	-32	-14	4	22	40	58	76	94	112	130

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 11.A Estimated costs per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Non-irrigated, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY	_				
App by Air (5 gal) HARVEST AIDS	appl	7.00	4.0000	28.00	
Gramoxone SL Sodium Chlorate 5L	oz gal	0.19 6.77	16.0000 0.6000	3.04 4.06	
FERTILIZERS Phosphorus(46% P205) Potash (60% K20)	cwt cwt	17.31 22.11	0.8700 1.3300	15.06 29.41	
FUNGICIDES CruiserMaxx Vibrance		4.75	1.6000	7.60	
HERBICIDES Glyphosate 31bs a.e	OZ	0.13	96.0000	12.48	
2,4-D Amine 4 Select Max	pt pt	2.25 12.74	2.0000	4.50 12.74	
Valor SX	OZ	4.51	2.0000	9.02	
Boundary	pt	11.07	2.0000	22.14	
Gramoxone SL 2.0 Prefix	oz pt	0.19 6.64	48.0000 2.0000	9.12 13.28	
Zidua DF INSECTICIDES	OZ	8.72	1.5000	13.08	
Acephate 90SP IncidentalPestTrt \$8	lb acre	6.42 8.00	0.7500 1.0000	4.81 8.00	
SEED/PLANTS Soybean Seed RR2X	lb	1.34	50.0000	67.00	
ADJUVANTS Surfactant CUSTOM FERTILIZE	pt	3.30	1.0000	3.30	
Custom Apply Fert HAULING	acre	7.50	1.0000	7.50	
Haul Soybeans CUSTOM LIME	bu	0.27	42.0000	11.34	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.3330	15.80	
Soybeans Consultant INOCULANT	acre	6.50	1.0000	6.50	
Inoculant -Soybean SOIL TEST	acre	1.55	1.0000	1.55	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters	hour hour	14.68 14.68	0.2942 0.0851	4.30 1.25	
HAND LABOR Implements	hour	9.06	0.0959	0.87	
UNALLOCATED LABOR DIESEL FUEL	hour	14.64	0.3414	5.00	
Tractors Harvesters	gal gal	1.53 1.53	3.4079 1.4243	5.22 2.18	
REPAIR & MAINTENANCE Implements	acre	5.23	1.0000	5.23	
Tractors	acre	2.15	1.0000	2.15	
Harvesters INTEREST ON OP. CAP.	acre acre	3.50 7.65	1.0000	3.50 7.65	
TOTAL DIRECT EXPENSES FIXED EXPENSES				350.01	
Implements	acre	10.36	1.0000	10.36	
Tractors	acre	13.04	1.0000	13.04	
Harvesters	acre	13.41	1.0000	13.41	
TOTAL FIXED EXPENSES				36.81	
TOTAL SPECIFIED EXPENSES				386.82	

Table 11.B Summary of estimated costs and returns per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Non-irrigated, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR	FARM
		dollars		dollars		
INCOME						
Soybeans	bu	9.67	42.0000	406.14		
TOTAL INCOME				406.14		
DIRECT EXPENSES						
CUSTOM SPRAY	acre	28.00	1.0000	28.00		
HARVEST AIDS	acre	7.10	1.0000	7.10		
FERTILIZERS	acre	44.47	1.0000	44.47		
FUNGICIDES	acre	7.60	1.0000	7.60		
HERBICIDES	acre	96.36	1.0000	96.36		
INSECTICIDES	acre	12.81	1.0000	12.81		
SEED/PLANTS	acre	67.00	1.0000	67.00		
ADJUVANTS	acre	3.30	1.0000	3.30		
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50		
HAULING	acre	11.34	1.0000	11.34		
CUSTOM LIME	acre	15.80	1.0000	15.80		
CROP CONSULTANT	acre	6.50	1.0000	6.50		
INOCULANT	acre	1.55	1.0000	1.55		
SOIL TEST	acre	3.33	1.0000	3.33		
HAND LABOR	hour	9.06	0.0959	0.87		
OPERATOR LABOR	hour	14.68	0.3794	5.55		
UNALLOCATED LABOR	hour	14.64	0.3414	5.00		
DIESEL FUEL	gal	1.53	4.8323	7.40		
REPAIR & MAINTENANCE	acre	10.88	1.0000	10.88		
INTEREST ON OP. CAP.	acre	7.65	1.0000	7.65		
TOTAL DIRECT EXPENSES			-	350.01		
RETURNS ABOVE DIRECT EX	PENSES			56.13		
TOTAL FIXED EXPENSES				36.81		
TOTAL SPECIFIED EXPENSES	3		-	386.82		
RETURNS ABOVE TOTAL SPEC	CIFIED E	XPENSES		19.32		

Table 11.C Estimated resource use for field operations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2021

	SIZE/	POWER UNIT		TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	ırs	
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton	111.12 220	0.201	0.33	Oct	0.3330	0.01	0.01	0.01	0.00
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P205)						0.8700				
Potash (60% K20)	cwt					1.3300				
Disk Harrow	32'	MFWD 225	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 225	0.046	1.00	Oct		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Valor SX	OZ					2.0000				
Surfactant	pt					0.4000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Anr	0.1000	0.06	0.06	0.13	0.06
Soybean Seed RR2X	lb	111.112 220	0.007	1.00	110-	50.0000	0.00	0.00	0.10	0.00
CruiserMaxx Vibrance						1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	OZ					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	Mav	1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Mav	1.0000	0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	OZ	111.12 220	0.020	1.00	1101	32.0000	0.02	0.02	0.01	0.02
Prefix	pt					2.0000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	Mav	2.0000	0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	OZ	111.12 220	0.020	1.00	1101	32.0000	0.02	0.02	0.01	0.02
Zidua DF	OZ					1.5000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb			1.00	1149	0.7500				
Incidental Pest	120			1.00	Aug	0.7500				
App by Air (5 gal)	appl			1.00	1149	1.0000				
IncidentalPestTrt \$8						1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	OZ			1.00	1149	16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	pt					0.2000				
Header -Soybean	30' Flex	325 hp	0.085	1.00	Sep	0.2000	0.08	0.08	0.08	0.07
Haul Soybeans	bu	323 11P	0.000	1.00	SCP	42.0000	0.00	0.00	0.00	0.07
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Sep	42.0000	0.02	0.02	0.02	0.01
TOTALS							0.37	0.37	0.47	0.34

Table 11.D Estimated costs for field operations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Non-irrigated, Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Subsoiler	3 shank		0.72	0.39	1.14		0.09	2.34	2.01	4.35
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P205)		15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Disk Harrow	32'		1.09	1.50	1.71		0.17	4.47	4.85	9.32
Field Cultivate Fld	32'		0.83	0.85	1.30		0.12	3.10	4.14	7.24
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	ΟZ	4.16					0.11	4.27		4.27
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Select Max	pt	12.74					0.34	13.08		13.08
Valor SX	OZ	9.02					0.24	9.26		9.26
Surfactant	pt	1.32					0.04	1.36		1.36
Plant & Pre-Folding	12R-30		1.20	2.55	2.49		0.12	6.36	6.79	13.15
Soybean Seed RR2X	lb	67.00					1.34	68.34		68.34
CruiserMaxx Vibrance	e oz	7.60					0.15	7.75		7.75
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.44	22.58		22.58
Gramoxone SL 2.0	οz	9.12					0.18	9.30		9.30
Surfactant	pt	1.32					0.03	1.35		1.35
Soybeans Consultant	acre	6.50					0.11	6.61		6.61
Spray (Broadcast)	60'		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 31bs a.e	ΟZ	4.16					0.07	4.23		4.23
Prefix	pt	13.28					0.22	13.50		13.50
Spray (Broadcast)	60'		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 3lbs a.e	OZ	4.16					0.07	4.23		4.23
Zidua DF	OZ	13.08					0.22	13.30		13.30
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Acephate 90SP	lb	4.81					0.03	4.84		4.84
Incidental Pest	ID	4.01					0.05	1.01		1.01
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8		8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Gramoxone SL	appi OZ	3.04					0.03	3.06		3.06
Sodium Chlorate 5L		4.06					0.02	4.09		4.09
Surfactant	gal n+						0.03			
	pt	0.66	2 10	1 12	2 27		0 02	0.66	1170	0.66
Header -Soybean	30' Flex	11 24	2.18	4.43	2.37		0.03	9.01	14.76	23.77
Haul Soybeans	bu	11.34	0 20	0 40	0 50		0.04	11.38	1 20	11.38
Grain Cart Soybean	700 bu		0.38	0.40	0.59			1.37	1.36	2.73
TOTALS		312.66	7.40	10.88	11.42	0.00	7.65	350.01	36.81	386.82

Table 11.E Estimated monthly income and expense flows per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	406.14
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	30.42	0.00	31.26	34.68	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.81	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.34
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.15	0.00	0.00	0.00	0.00	0.00	2.49	1.82	0.00	0.00	0.00	2.96
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.64	0.00	0.00	0.00	0.00	0.00	1.20	1.00	0.00	0.00	0.00	2.56
REPAIR & MAINTENANCE	2.74	0.00	0.00	0.00	0.00	0.00	2.55	0.76	0.00	0.00	0.00	4.83
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	1.04	0.00	2.29	0.75	0.00	0.00	0.28	0.07
TOTAL DIRECT EXPENSES	83.85	0.00	0.00	0.00	39.78	0.00	117.26	45.51	0.00	0.00	41.85	21.76
NET INCOME	-83.85	0.00	0.00	0.00	-39.78	0.00	-117.26	-45.51	0.00	0.00	-41.85	384.38
NET INCOME TO DATE	-83.85	-83.85	-83.85	-83.85	-123.63	-123.63	-240.89	-286.40	-286.40	-286.40	-328.25	56.13

Table 11.F Estimated returns for various price/yield combinations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Non-irrigated, Delta Area, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95 PR	100	105 CE	110	115	120	125
Soybeans	5		7.25	7.73	8.21			9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT					d	ollars					
50	21.00	bu	-192 -228	-181 -218	-171 -208	-161 -198	-151 -188	-141 -178	-131 -167	-120 -157	-110 -147	-100 -137	-90 -127
60	25.20	bu	-162 -199	-150 -187	-138 -175	-126 -162	-113 -150	-101 -138	-89 -126	-77 -114	-65 -102	-53 -89	-40 -77
70	29.40	bu	-133 -170	-119 -155	-104 -141	-90 -127	-76 -113	-62 -99	-48 -84	-33 -70	-19 -56	-5 -42	8 -28
80	33.60	bu	-104 -140	-87 -124	-71 -108	-55 -92	-39 -75	-22 -59	-6 -43	9 -27	25 -10	42 5	58 21
90	37.80	bu	-74 -111	-56 -93	-38 -74	-19 -56	-1 -38	16 -20	34 -1	53 16	71 34	89 52	108 71
100	42.00	bu	-45 -82	-25 -61	-4 -41	15 -21	35 -0	56 19	76 39	96 59	117 80	137 100	157 120
110	46.20	bu	-16 -52	6 -30	28 -8	50 14	73 36	95 58	117 81	140 103	162 125	184 148	207 170
120	50.40	bu	13 -23	37 0	61 25	86 49	110 73	135 98	159 122	183 147	208 171	232 195	256 220
130	54.60	bu	42 5	68 32	95 58	121 84	148 111	174 137	200 164	227 190	253 216	280 243	306 269
140	58.80	bu	71 35	100 63	128 91	157 120	185 148	214 177	242 205	270 234	299 262	327 290	356 319
150	63.00	bu	101 64	131 94	162 125	192 155	223 186	253 216	283 247	314 277	344 308	375 338	405 369

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 12.A Estimated costs per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) HARVEST AIDS	appl	7.00	5.0000	35.00	
Gramoxone SL	OZ	0.19	16.0000	3.04	
Sodium Chlorate 5L FERTILIZERS	gal	6.77	0.6000	4.06	
Phosphorus (46% P2O5) Potash (60% K2O)	cwt cwt	17.31 22.11	0.8700 1.3300	15.06 29.41	
FUNGICIDES CruiserMaxx Vibrance		4.75	1.6000	7.60	
Miravis Top	OZ OZ	1.44	13.7000	19.73	
HERBICIDES Glyphosate 31bs a.e	ΟZ	0.13	96.0000	12.48	
$2,\overline{4}-D$ Amine 4	pt	2.25	2.0000	4.50	
Select Max Valor SX	pt oz	12.74 4.51	1.0000 2.0000	12.74 9.02	
Boundary	pt	11.07	2.0000	22.14	
Gramoxone SL 2.0 Prefix	OZ nt	0.19 6.64	48.0000 2.0000	9.12 13.28	
Zidua DF	pt oz	8.72	1.5000	13.28	
INSECTICIDES	11-	6.42	0.7500	4 01	
Acephate 90SP IncidentalPestTrt \$8	lb acre	8.00	0.7500 1.0000	4.81 8.00	
IRRIGATION SUPPLIES Roll-Out Pipe	ft	0.24	33.0000	7.92	
SEED/PLANTS -					
Soybean Seed RR2X ADJUVANTS	lb	1.34	50.0000	67.00	
Surfactant CUSTOM FERTILIZE	pt	3.30	1.1000	3.63	
Custom Apply Fert HAULING	acre	7.50	1.0000	7.50	
Haul Soybeans	bu	0.27	60.0000	16.20	
CUSTOM LIME Lime (Spread)	ton	47.45	0.3330	15.80	
CROP CONSULTANT Soybeans Consultant	acre	6.50	1.0000	6.50	
INOCULANT Inoculant -Soybean	acre	1.55	1.0000	1.55	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.4536	6.65	
Harvesters	hour	14.68	0.0851	1.25	
IRRIGATE LABOR Special Labor	hour	9.06	0.3000	2.73	
Implements HAND LABOR	hour	9.06	0.0625	0.57	
Implements UNALLOCATED LABOR	hour hour	9.06 14.65	0.0959 0.4142	0.87 6.07	
DIESEL FUEL					
Tractors Harvesters	gal gal	1.53 1.53	4.9868 1.4243	7.64 2.18	
Roll-Out Pipe Irr.	gal	1.53	7.3316	11.22	
REPAIR & MAINTENANCE Implements	acre	6.18	1.0000	6.18	
Tractors	acre	3.11	1.0000	3.11	
Harvesters	acre	3.50	1.0000	3.50	
Roll-Out Pipe Irr. INTEREST ON OP. CAP.	acre acre	7.16 8.55	1.0000	7.16 8.55	
TOTAL DIRECT EXPENSES				420.18	
FIXED EXPENSES		40	4 0		
Implements	acre	13.55 18.92	1.0000	13.55 18.92	
Tractors Harvesters	acre acre	13.41	1.0000	13.41	
Roll-Out Pipe Irr.	acre	51.84	1.0000	51.84	
TOTAL FIXED EXPENSES				97.72	
TOTAL SPECIFIED EXPENSES				517.90	

Table 12.B Summary of estimated costs and returns per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	60.0000	580.20	
TOTAL INCOME				580.20	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	35.00	1.0000	35.00	
HARVEST AIDS	acre	7.10	1.0000	7.10	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	27.33	1.0000	27.33	
HERBICIDES	acre	96.36	1.0000	96.36	
INSECTICIDES	acre	12.81	1.0000	12.81	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	67.00	1.0000	67.00	
ADJUVANTS	acre	3.63	1.0000	3.63	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	16.20	1.0000	16.20	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.0959	0.87	
IRRIGATE LABOR	hour	9.06	0.3625	3.30	
OPERATOR LABOR	hour	14.68	0.5388	7.90	
UNALLOCATED LABOR	hour	14.65	0.4142	6.07	
DIESEL FUEL	gal	1.53	13.7429	21.04	
REPAIR & MAINTENANCE	acre	19.95	1.0000	19.95	
INTEREST ON OP. CAP.	acre	8.55	1.0000	8.55	
TOTAL DIRECT EXPENSES				420.18	
RETURNS ABOVE DIRECT EXE	PENSES			160.02	
TOTAL FIXED EXPENSES				97.72	
TOTAL SPECIFIED EXPENSES	5			517.90	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		62.30	

Table 12.C Estimated resource use for field operations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P2O5)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Disk Harrow	32'	MFWD 225	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 190	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Bed/Lister-Roll-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Valor SX	OZ					2.0000				
Surfactant	pt					0.4000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Apr		0.06	0.06	0.13	0.06
Soybean Seed RR2X	lb				-	50.0000				
CruiserMaxx Vibrance	e oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	OZ					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	OZ				-	32.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	ΟZ				-	32.0000				
Zidua DF	ΟZ					1.5000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	OZ					13.7000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
Incidental Pest				1.00	Aug					
App by Air (5 gal)	appl					1.0000				
IncidentalPestTrt \$8						1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	OZ				5	16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	pt					0.2000				
Header -Soybean	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
Haul Soybeans	bu				T	60.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Sep		0.02	0.02	0.02	0.01
Roll-Out Pipe Irr.	acre	-11.12 220	3.021	00	Jul	1.0000	0.07	0.07	0.44	0.01
						, , , , , ,				
TOTALS							0.53	0.53	0.99	0.41

Table 12.D Estimated costs for field operations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Subsoiler	3 shank		0.72	0.39	1.14		0.09	2.34	2.01	4.35
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P205)		15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Disk Harrow	32'		1.09	1.50	1.71		0.17	4.47	4.85	9.32
Field Cultivate Fld	32 '		0.70	0.79	1.30		0.11	2.90	3.79	6.69
Bed/Lister-Roll-Fo	12R-30		1.43	1.35	2.26		0.20	5.24	5.54	10.78
App by Air (5 gal)	appl	7.00	1.15	1.00	2.20		0.19	7.19	3.31	7.19
Glyphosate 3lbs a.e	OZ	4.16					0.11	4.27		4.27
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Select Max	pt	12.74					0.34	13.08		13.08
Valor SX	OZ	9.02					0.24	9.26		9.26
Surfactant		1.32					0.24	1.36		1.36
	pt 12B_30	1.32	1.20	2.55	2.49		0.12	6.36	6.79	13.15
Plant & Pre-Folding	12R-30	67.00	1.20	2.33	2.49		1.34	68.34	0.79	68.34
Soybean Seed RR2X	lb									7.75
CruiserMaxx Vibrance		7.60					0.15	7.75		
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.44	22.58		22.58
Gramoxone SL 2.0	OZ	9.12					0.18	9.30		9.30
Surfactant	pt	1.32					0.03	1.35		1.35
Soybeans Consultant	acre	6.50					0.11	6.61		6.61
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 31bs a.e	OZ	4.16					0.07	4.23		4.23
Prefix	pt	13.28					0.22	13.50		13.50
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 31bs a.e	OZ	4.16					0.07	4.23		4.23
Zidua DF	OZ	13.08					0.22	13.30		13.30
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Miravis Top	OZ	19.73					0.20	19.93		19.93
Surfactant	pt	0.33						0.33		0.33
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Acephate 90SP Incidental Pest	lb	4.81					0.03	4.84		4.84
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8		8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Gramoxone SL	OZ	3.04					0.02	3.06		3.06
Sodium Chlorate 5L	gal	4.06					0.03	4.09		4.09
Surfactant	pt	0.66	0 10	4 42	0 25		0 00	0.66	14 76	0.66
Header -Soybean	30' Flex	1.5.05	2.18	4.43	2.37		0.03	9.01	14.76	23.77
Haul Soybeans	bu	16.20					0.05	16.25		16.25
Grain Cart Soybean	700 bu		0.38	0.40	0.59			1.37	1.36	2.73
Roll-Out Pipe Irr.	acre	7.92	12.34	7.78	4.46		0.43	32.93	55.72	88.65
TOTALS		352.50	21.04	19.95	18.14	0.00	8.55	420.18	97.72	517.90

Table 12.E Estimated monthly income and expense flows per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
·						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	580.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	19.73	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	30.42	0.00	31.26	34.68	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.81	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.33	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.20
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.97	0.00	0.00	0.00	0.00	0.00	2.49	2.05	2.82	0.23	0.00	3.58
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	4.51	0.00	0.00	0.00	0.00	0.00	1.20	1.00	7.78	3.74	0.00	2.81
REPAIR & MAINTENANCE	4.33	0.00	0.00	0.00	0.00	0.00	2.55	0.76	5.93	1.40	0.00	4.98
INTEREST ON OP. CAP.	3.47	0.00	0.00	0.00	1.04	0.00	2.29	0.75	0.32	0.32	0.28	0.08
TOTAL DIRECT EXPENSES	90.38	0.00	0.00	0.00	39.78	0.00	117.26	45.74	24.77	32.75	41.85	27.65
NET INCOME	-90.38	0.00	0.00	0.00	-39.78	0.00	-117.26	-45.74	-24.77	-32.75	-41.85	552.55
NET INCOME TO DATE	-90.38	-90.38	-90.38	-90.38	-130.16	-130.16	-247.42	-293.16	-317.93	-350.68	-392.53	160.02

^{*} Lease costs are based on hourly usage costs.

Table 12.F Estimated returns for various price/yield combinations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30"

Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95 PR	100	105	110	115	120	125
Soybeans	3		7.25	7.73	8.21	8.70	9.18	9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT					d	ollars					
50	30.00	bu	-194 -292	-179 -277	-165 -263	-150 -248	-136 -234	-121 -219	-107 -205	-92 -190	-78 -176	-63 -161	-49 -147
60	36.00	bu	-152 -250	-135 -232	-117 -215	-100 -198	-82 -180	-65 -163	-48 -145	-30 -128	-13 -111	4 -93	21 -76
70	42.00	bu	-110 -208	-90 -188	-70 -167	-49 -147	-29 -127	-9 -106	11 -86	31 -66	51 -45	72 -25	92 -5
80	48.00	bu	-68 -166	-45 -143	-22 -120	0 -96	24 -73	47 -50	70 -27	93 -4	116 19	140 42	163 65
90	54.00	bu	-26 -124	-0 -98	25 - 72	51 -46	77 -20	103 5	129 32	155 58	181 84	208 110	234 136
100	60.00	bu	14 -82	43 -53	72 -24	102 4	131 33	160 62	189 91	218 120	247 149	276 178	305 207
110	66.00	bu	56 -40	88 -8	120 22	152 54	184 86	216 118	248 150	280 182	312 214	344 246	375 278
120	72.00	bu	98 1	133 35	168 70	203 105	237 140	272 175	307 209	342 244	377 279	412 314	446 349
130	78.00	bu	140 42	178 80	216 118	253 156	291 193	329 231	366 269	404 306	442 344	480 382	517 420
140	84.00	bu	182 84	223 125	263 166	304 206	344 247	385 287	426 328	466 369	507 409	548 450	588 490
150	90.00	bu	224 126	267 170	311 213	354 257	398 300	441 344	485 387	529 431	572 474	616 518	659 561

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 13.A Estimated costs per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

FIOOD IIIIga		.5 ac in.,			
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES CUSTOM SPRAY		dollars		dollars	
App by Air (5 gal) HARVEST AIDS	appl	7.00	4.0000	28.00	
Gramoxone SL Sodium Chlorate 5L	oz gal	0.19 6.77	16.0000 0.6000	3.04 4.06	
FERTILIZERS Phosphorus(46% P205) Potash (60% K20)	cwt cwt	17.31 22.11	0.8700 1.3300	15.06 29.41	
FUNGICIDES CruiserMaxx Vibrance		4.75	1.6000	7.60	
Miravis Top HERBICIDES	OZ	1.44	13.7000	19.73	
Glyphosate 3lbs a.e Select Max Valor SX	oz pt oz	0.13 12.74 4.51	96.0000 1.0000 2.0000	12.48 12.74 9.02	
Boundary	pt	11.07	2.0000	22.14	
Gramoxone SL 2.0 Prefix	oz pt	0.19 6.64	48.0000 2.0000	9.12 13.28	
INSECTICIDES Acephate 90SP IncidentalPestTrt \$8	lb acre	6.42 8.00	0.7500	4.81 8.00	
SEED/PLANTS Soybean Seed RR2X	lb	1.34	50.0000	67.00	
ADJUVANTS Surfactant CUSTOM FERTILIZE	pt	3.30	1.1000	3.63	
Custom Apply Fert HAULING	acre	7.50	1.0000	7.50	
Haul Soybeans SURVEY & MARK LEVEES	bu	0.27	53.0000	14.31	
Survey & Mark Levees CUSTOM LIME		4.50	0.5000	2.25	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.3330	15.80	
Soybeans Consultant INOCULANT Inoculant -Soybean	acre	6.50 1.55	1.0000	6.50 1.55	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.4377	6.37	
Harvesters IRRIGATE LABOR	hour	14.68	0.0851	1.25	
Special Labor HAND LABOR	hour	9.06	0.3125	2.82	
Implements UNALLOCATED LABOR DIESEL FUEL	hour	9.06 14.61	0.1100	1.00 4.21	
Tractors Harvesters Contour Flood Irr. REPAIR & MAINTENANCE	gal gal gal	1.53 1.53 1.53	4.4959 1.4243 10.9974	6.90 2.18 16.83	
Implements Tractors Harvesters	acre acre acre	5.09 2.73 3.50	1.0000 1.0000 1.0000	5.09 2.73 3.50	
Contour Flood Irr. INTEREST ON OP. CAP.	acre	14.31 8.14	1.0000	14.31	
TOTAL DIRECT EXPENSES FIXED EXPENSES				395.69	
Implements Tractors	acre acre	9.53 16.59	1.0000	9.53 16.59	
Harvesters Contour Flood Irr.	acre	13.41 41.43	1.0000	13.41	
TOTAL FIXED EXPENSES				80.96	
TOTAL SPECIFIED EXPENSES				476.65	

Table 13.B Summary of estimated costs and returns per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	53.0000	512.51	
TOTAL INCOME				512.51	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	
HARVEST AIDS	acre	7.10	1.0000	7.10	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	27.33	1.0000	27.33	
HERBICIDES	acre	78.78	1.0000	78.78	
INSECTICIDES	acre	12.81	1.0000	12.81	
SEED/PLANTS	acre	67.00	1.0000	67.00	
ADJUVANTS	acre	3.63	1.0000	3.63	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	14.31	1.0000	14.31	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1100	1.00	
IRRIGATE LABOR	hour	9.06	0.3125	2.82	
OPERATOR LABOR	hour	14.68	0.5229	7.62	
UNALLOCATED LABOR	hour	14.61	0.2880	4.21	
DIESEL FUEL	gal	1.53	16.9177	25.91	
REPAIR & MAINTENANCE	acre	25.63	1.0000	25.63	
INTEREST ON OP. CAP.	acre	8.14	1.0000	8.14	
TOTAL DIRECT EXPENSES				395.69	
RETURNS ABOVE DIRECT EXE	PENSES			116.82	
TOTAL FIXED EXPENSES				80.96	
TOTAL SPECIFIED EXPENSES	3			476.65	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		35.86	

Table 13.C Estimated resource use for field operations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT		TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								hoi	ırs	
Soil Test	acre			0.33	Nov	0.3330				
Disk Harrow	32'	MFWD 225	0.061	1.00	Nov		0.06	0.06	0.06	0.05
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P2O5)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	ΟZ					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Valor SX	ΟZ					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed RR2X	lb				-	50.0000				
CruiserMaxx Vibrance	e oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	OZ					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	OZ				1	32.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	OZ					32.0000	***=			
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	OZ			1.00	041	13.7000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb			1.00	mug	0.7500				
Incidental Pest	120			1.00	Sep	0.7500				
App by Air (5 gal)	appl			1.00	seb	1.0000				
IncidentalPestTrt \$8						1.0000				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Gramoxone SL	appi OZ			1.00	sep	16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	-					0.2000				
Header -Soybean	pt 30' Flex	325 hp	0.085	1.00	Oct	0.2000	0.08	0.08	0.08	0.07
-		323 IIP	0.005	1.00	UCL	E2 0000	0.00	0.00	0.08	0.07
Haul Soybeans	bu 700 bu	MEMD 225	0 021	1 00	Oat	53.0000	0.02	0.02	0.02	0.01
Grain Cart Soybean Contour Flood Irr.	700 bu	MFWD 225	0.021	1.00	Oct Jul	1.0000		0.02		0.01
Contour Flood Irr.	acre				JUI	1.0000	0.20	U.ZU	0.51	
TOTALS							0.52	0.52	0.94	0.28

rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 13.D Estimated costs for field operations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Disk Harrow	32'		1.09	1.50	1.71		0.17	4.47	4.85	9.32
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P205)	cwt	15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Spray (Broadcast)	60'		0.50	0.38	0.91		0.05	1.84	1.45	3.29
Glyphosate 31bs a.e	OZ	4.16					0.12	4.28		4.28
Select Max	pt	12.74					0.38	13.12		13.12
Surfactant	pt	1.32					0.04	1.36		1.36
Valor SX	οz	9.02					0.27	9.29		9.29
Soybeans Consultant	acre	6.50					0.13	6.63		6.63
Plant & Pre-Folding	12R-30		1.20	2.55	2.49		0.12	6.36	6.79	13.15
Soybean Seed RR2X	lb	67.00					1.34	68.34		68.34
CruiserMaxx Vibrance	e oz	7.60					0.15	7.75		7.75
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.44	22.58		22.58
Gramoxone SL 2.0	OZ	9.12					0.18	9.30		9.30
Surfactant	pt	1.32					0.03	1.35		1.35
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.04	1.83	1.45	3.28
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Prefix	pt	13.28					0.27	13.55		13.55
Spray (Broadcast)	60 '		0.50	0.38	0.91		0.03	1.82	1.45	3.27
Glyphosate 31bs a.e	OZ	4.16					0.07	4.23		4.23
App by Air (5 gal)	appl	7.00					0.09	7.09		7.09
Miravis Top	OZ	19.73					0.26	19.99		19.99
Surfactant	pt	0.33					0.20	0.33		0.33
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Acephate 90SP	lb	4.81					0.05	4.86		4.86
Incidental Pest	10	4.01					0.05	4.00		4.00
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8		8.00					0.05	8.05		8.05
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
Gramoxone SL	appi oz	3.04					0.03	3.06		3.06
Sodium Chlorate 5L	gal	4.06					0.02	4.09		4.09
	_						0.03	0.66		0.66
Surfactant	pt	0.66	2 10	1 12	2 27		0 02		1170	
Header -Soybean	30' Flex	1/1 21	2.18	4.43	2.37		0.03	9.01	14.76	23.77
Haul Soybeans	bu 700 bu	14.31	0 20	0.40	0 50		0.05	14.36	1 20	14.36
Grain Cart Soybean	700 bu	0.05	0.38	0.40	0.59		0 (1	1.37	1.36	2.73
Contour Flood Irr.	acre	2.25	19.56 	15.61 	5.76		0.61	43.79	48.85	92.64
TOTALS		320.36	25.91	25.63	15.65	0.00	8.14	395.69	80.96	476.65

Table 13.E Estimated monthly income and expense flows per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30" Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	512.51
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	7.00	14.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	19.73	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	25.92	0.00	0.00	48.70	4.16	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.81	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	0.00	0.00	1.32	0.00	0.33	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.31
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	1.71	0.00	0.00	0.91	0.00	0.00	3.85	2.78	1.63	1.63	0.18	2.96
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.09	0.00	0.00	0.50	0.00	0.00	1.70	7.11	6.39	6.39	0.17	2.56
REPAIR & MAINTENANCE	1.50	0.00	0.00	0.38	0.00	0.00	2.93	9.57	3.17	3.17	0.08	4.83
INTEREST ON OP. CAP.	3.01	0.00	0.00	0.86	0.00	0.00	2.82	0.43	0.50	0.24	0.20	0.08
TOTAL DIRECT EXPENSES	78.41	0.00	0.00	29.89	0.00	0.00	143.97	26.30	38.75	23.24	30.39	24.74
NET INCOME	-78.41	0.00	0.00	-29.89	0.00	0.00	-143.97	-26.30	-38.75	-23.24	-30.39	487.77
NET INCOME TO DATE	-78.41	-78.41	-78.41	-108.30	-108.30	-108.30	-252.27	-278.57	-317.32	-340.56	-370.95	116.82

^{*} Lease costs are based on hourly usage costs.

Table 13.F Estimated returns for various price/yield combinations, per acre Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95	100	105 CE	110	115	120	125
Soybeans	3		7.25	7.73	8.21	8.70	9.18	9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT					d	ollars					
50	26.50	bu	-196 -277	-183 -264	-170 -251	-157 -238	-145 -226	-132 -213	-119 -200	-106 -187	-93 -174	-81 -161	-68 -149
60	31.80	bu	-159 -240	-143 -224	-128 -209	-113 -194	-97 -178	-82 -163	-67 -148	-51 -132	-36 -117	-20 -101	-5 -86
70	37.10	bu	-122 -203	-104 -185	-86 -167	-68 -149	-50 -131	-32 -113	-14 -95	3 -77	21 -59	39 -41	57 -23
80	42.40	bu	-85 -166	-64 -145	-44 -125	-23 -104	-3 -84	17 -63	37 -43	58 -22	78 -2	99 18	119 38
90	47.70	bu	-48 -129	-25 -106	-2 -83	20 -60	43 -37	67 - 13	90 9	113 32	136 55	159 78	182 101
100	53.00	bu	-11 -92	14 -66	39 - 41	65 - 15	91 10	116 35	142 61	168 87	193 112	219 138	244 163
110	58.30	bu	25 -55	53 -27	82 1	110 29	138 57	166 85	194 113	223 142	251 170	279 198	307 226
120	63.60	bu	62 -18	93 12	124 43	154 73	185 104	216 135	247 166	277 196	308 227	339 258	370 289
130	68.90	bu	99 18	133 52	166 85	199 118	232 151	266 185	299 218	332 251	366 285	399 318	432 351
140	74.20	bu	136 55	172 91	208 127	244 163	280 199	316 235	351 270	387 306	423 342	459 378	495 414
150	79.50	bu	173 92	212 131	250 169	289 208	327 246	365 284	404 323	442 361	481 400	519 438	558 477

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 14.A Estimated costs per acre Soybeans, double crop after wheat, RR2X, 12R 30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars			
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY App by Air (5 gal)	appl	7.00	4.0000	28.00	
FERTILIZERS Phosphorus (46% P205)	cwt	17.31	0.8700	15.06	
Potash (60% K20) FUNGICIDES	cwt	22.11	1.3300	29.41	
CruiserMaxx Vibrance Miravis Top	OZ OZ	4.75 1.44	1.6000 13.7000	7.60 19.73	
HERBICIDES					
Boundary Gramoxone SL 2.0	pt oz	11.07 0.19	2.0000 48.0000	22.14 9.12	
Glyphosate 31bs a.e	ΟZ	0.13	32.0000	4.16	
Prefix INSECTICIDES	pt	6.64	2.0000	13.28	
Acephate 90SP Prevathon	lb oz	6.42 1.05	0.7500 14.0000	4.81 14.70	
Bifenthrin	ΟZ	0.94	6.4000	6.02	
IncidentalPestTrt \$8 SEED/PLANTS	acre	8.00	1.0000	8.00	
Soybean Seed RR2X ADJUVANTS	lb	1.34	50.0000	67.00	
Surfactant	pt	3.30	0.6000	1.98	
CUSTOM FERTILIZE Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING Haul Soybeans	bu	0.27	50.0000	13.50	
CUSTOM LIME Lime (Spread)	ton	47.45	0.3330	15.80	
CROP CONSULTANT Soybeans Consultant	acre	6.50	1.0000	6.50	
INOCULANT Inoculant -Soybean	acre	1.55	1.0000	1.55	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR					
Tractors Harvesters	hour hour	14.68 14.68	0.1171 0.1021	1.71 1.50	
IRRIGATE LABOR Special Labor	hour	9.06	0.0518	0.47	
HAND LABOR Implements	hour	9.06	0.0817	0.74	
UNALLOCATED LABOR	hour	14.68	0.1886	2.77	
DIESEL FUEL Tractors	gal	1.53	1.3567	2.08	
Harvesters 1/2-mi Pivot Irr.	gal	1.53 1.53	1.3935	2.13 25.10	
REPAIR & MAINTENANCE	gal	1.55	16.4057	23.10	
Implements Tractors	acre acre	3.40 0.85	1.0000	3.40 0.85	
Harvesters	acre	4.16	1.0000	4.16	
1/2-mi Pivot Irr. INTEREST ON OP. CAP.	acre acre	12.00 6.54	1.0000	12.00 6.54	
TOTAL DIRECT EXPENSES				362.64	
FIXED EXPENSES	2000	5.75	1.0000	5.75	
Implements Tractors	acre acre	5.19	1.0000	5.19	
Harvesters 1/2-mi Pivot Irr.	acre acre	15.93 40.89	1.0000	15.93 40.89	
TOTAL FIXED EXPENSES	2010	10.05	1.0000	67.76	
TOTAL SPECIFIED EXPENSES				430.40	

Table 14.B Summary of estimated costs and returns per acre Soybeans, double crop after wheat, RR2X, 12R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	50.0000	483.50	
TOTAL INCOME				483.50	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	27.33	1.0000	27.33	
HERBICIDES	acre	48.70	1.0000	48.70	
INSECTICIDES	acre	33.53	1.0000	33.53	
SEED/PLANTS	acre	67.00	1.0000	67.00	
ADJUVANTS	acre	1.98	1.0000	1.98	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	13.50	1.0000	13.50	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.0817	0.74	
IRRIGATE LABOR	hour	9.06	0.0518	0.47	
OPERATOR LABOR	hour	14.68	0.2193	3.21	
UNALLOCATED LABOR	hour	14.68	0.1886	2.77	
DIESEL FUEL	gal	1.53	19.1560	29.31	
REPAIR & MAINTENANCE	acre	20.41	1.0000	20.41	
INTEREST ON OP. CAP.	acre	6.54	1.0000	6.54	
TOTAL DIRECT EXPENSES			·	362.64	
RETURNS ABOVE DIRECT EXE	PENSES			120.86	
TOTAL FIXED EXPENSES				67.76	
TOTAL SPECIFIED EXPENSES			-	430.40	
RETURNS ABOVE TOTAL SPEC	CIFIED E	XPENSES		53.10	

Table 14.C Estimated resource use for field operations, per acre Soybeans, double crop after wheat, RR2X, 12R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P205)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Jun		0.06	0.06	0.13	0.05
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	OZ					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	ΟZ					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	ΟZ					32.0000				
Prefix	pt					2.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Miravis Top	ΟZ					13.7000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Prevathon	ΟZ					14.0000				
Surfactant	pt					0.1000				
Bifenthrin	ΟZ					6.4000				
Incidental Pest				1.00	Sep					
App by Air (5 gal)	appl				_	1.0000				
IncidentalPestTrt \$8	acre					1.0000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu	-				50.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
1/2-mi Pivot Irr.	acre				Jul	1.0000			0.05	
TOTALS							0.21	0.21	0.35	0.18

rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 14.D Estimated costs for field operations, per acre Soybeans, double crop after wheat, RR2X, 12R 30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

OPERATION/	SIZE/]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P205)		15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Soybeans Consultant	acre	6.50					0.13	6.63		6.63
Plant & Pre-Folding	12R-30	0.00	1.20	2.55	2.45		0.10	6.30	6.79	13.09
Sovbean Seed RR2X	lb	67.00	1.20	2.00	2.10		1.12	68.12	0.,5	68.12
CruiserMaxx Vibrance		7.60					0.13	7.73		7.73
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.37	22.51		22.51
Gramoxone SL 2.0	OZ	9.12					0.15	9.27		9.27
Surfactant	pt	1.32					0.02	1.34		1.34
Spray (Broadcast)	60'	1.02	0.50	0.38	0.90		0.02	1.80	1.45	3.25
Glyphosate 31bs a.e	OZ	4.16	0.00	0.00	0.30		0.06	4.22	1.10	4.22
Prefix	pt	13.28					0.18	13.46		13.46
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Miravis Top	OZ	19.73					0.20	19.93		19.93
Surfactant	pt	0.33						0.33		0.33
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Acephate 90SP	lb	4.81					0.05	4.86		4.86
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Prevathon	OZ	14.70					0.15	14.85		14.85
Surfactant	pt	0.33						0.33		0.33
Bifenthrin	OZ	6.02					0.06	6.08		6.08
Incidental Pest										
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
IncidentalPestTrt \$8		8.00					0.05	8.05		8.05
Header -Soybean	25' Flex		2.13	5.08	2.79		0.03	10.03	17.27	27.30
Haul Soybeans	bu	13.50					0.05	13.55		13.55
Grain Cart Soybean	700 bu		0.38	0.40	0.58			1.36	1.36	2.72
1/2-mi Pivot Irr.	acre		25.10	12.00	0.47		0.54	38.11	40.89	79.00
TOTALS		299.19	29.31	20.41	7.19	0.00	6.54	362.64	67.76	430.40

Table 14.E Estimated monthly income and expense flows per acre Soybeans, double crop after wheat, RR2X, 12R 30" Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	483.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	7.00	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	19.73	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.26	17.44	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.53	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.66	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.50
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.49	0.95	0.04	0.00	3.37
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.73	10.54	7.53	0.00	2.51
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.96	1.29	0.68	0.00	5.48
INTEREST ON OP. CAP.	2.84	0.00	0.00	0.00	0.00	0.00	0.14	2.22	0.41	0.75	0.10	0.08
TOTAL DIRECT EXPENSES	73.94	0.00	0.00	0.00	0.00	0.00	6.98	135.13	30.63	75.92	15.10	24.94
NET INCOME	-73.94	0.00	0.00	0.00	0.00	0.00	-6.98	-135.13	-30.63	-75.92	-15.10	458.56
NET INCOME TO DATE	-73.94	-73.94	-73.94	-73.94	-73.94	-73.94	-80.92	-216.05	-246.68	-322.60	-337.70	120.86

^{*} Lease costs are based on hourly usage costs.

Table 14.F Estimated returns for various price/yield combinations, per acre Soybeans, double crop after wheat, RR2X, 12R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95 BB	100	105 CE	110	115	120	125
Soybeans	3		7.25	7.73	8.21	8.70	9.18	9.67	10.15	10.63	11.12	11.60	12.08
PERCENT	YIELD	UNIT					d	ollars					
50	25.00	bu	-174 -242	-162 -230	-150 -218	-138 -206	-126 -193	-114 -181	-102 -169	-89 -157	-77 -145	-65 -133	-53 -121
60	30.00	bu	-139 -207	-125 -192	-110 -178	-96 -163	-81 -149	-67 -134	-52 -120	-38 -105	-23 -91	-9 -76	5 -62
70	35.00	bu	-104 -172	-87 -155	-70 -138	-53 -121	-37 -104	-20 -87	-3 -70	13 -54	30 -37	47 -20	64 -3
80	40.00	bu	-69 -137	-50 -118	-31 -98	-11 -79	7 -60	26 -40	46 -21	65 -2	84 17	104 36	123 55
90	45.00	bu	-34 -102	-13 -80	8 -59	30 -37	52 - 15	73 6	95 27	117 49	139 71	160 93	182 114
100	50.00	bu	-0 -67	24 -43	48 -19	72 4	96 28	120 53	145 77	169 101	193 125	217 149	241 173
110	55.00	bu	34 -32	61 -6	88 20	114 46	141 73	167 100	194 126	221 153	247 179	274 206	300 233
120	60.00	bu	69 2	98 31	127 60	156 89	185 118	214 147	243 176	272 205	301 234	330 263	359 292
130	65.00	bu	104 36	136 68	167 99	198 131	230 162	261 194	293 225	324 256	356 288	387 319	418 351
140	70.00	bu	139 71	173 105	207 139	241 173	274 207	308 241	342 274	376 308	410 342	444 376	478 410
150	75.00	bu	174 106	210 143	247 179	283 215	319 251	355 288	392 324	428 360	464 396	500 433	537 469

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 15.A Estimated costs per acre
Soybeans, double crop after wheat, RR2X, 12R 30"
Non-irrigated, All Areas, Mississippi, 2021

Non-irrigate	u, All	ALCAS, MIS	этээтЬЬт,	2021	
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY					
App by Air (5 gal) FERTILIZERS	appl	7.00	3.0000	21.00	
Phosphorus (46% P205) Potash (60% K20)	cwt cwt	17.31 22.11	0.8700 1.3300	15.06 29.41	
FUNGICIDES CruiserMaxx Vibrance	ΟZ	4.75	1.6000	7.60	
HERBICIDES		11 07	0 0000	00 14	
Boundary	pt oz	11.07 0.19	2.0000 48.0000	22.14 9.12	
Gramoxone SL 2.0 Glyphosate 31bs a.e		0.13	32.0000	4.16	
Prefix	pt	6.64	2.0000	13.28	
INSECTICIDES	РС	0.01	2.0000	13.20	
Acephate 90SP	lb	6.42	0.7500	4.81	
Prevathon	OZ	1.05	14.0000	14.70	
Bifenthrin	ΟZ	0.94	6.4000	6.02	
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	
SEED/PLANTS					
Soybean Seed RR2X	lb	1.34	50.0000	67.00	
ADJUVANTS					
Surfactant	pt	3.30	0.5000	1.65	
CUSTOM FERTILIZE		E	1 0000	·	
Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING Haul Soybeans	bu	0.27	25.0000	6.75	
CUSTOM LIME	νu	0.27	20.0000	0.70	
Lime (Spread)	ton	47.45	0.3330	15.80	
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	
INOCULANT		1 55	1 0000	1 [[
Inoculant -Soybean SOIL TEST	acre	1.55	1.0000	1.55	
Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR	acic	10.00	0.5550	3.33	
Tractors	hour	14.68	0.1171	1.71	
Harvesters	hour	14.68	0.1021	1.50	
HAND LABOR	110 41	11.00	0.1021	2.00	
Implements	hour	9.06	0.0817	0.74	
UNALLOCATED LABOR	hour	14.68	0.1886	2.77	
DIESEL FUEL					
Tractors	gal	1.53	1.3567	2.08	
Harvesters	gal	1.53	1.3935	2.13	
REPAIR & MAINTENANCE					
Implements	acre	3.40	1.0000	3.40	
Tractors	acre	0.85	1.0000	0.85	
Harvesters	acre	4.16	1.0000	4.16	
INTEREST ON OP. CAP.	acre	5.70	1.0000	5.70	
momat biblion bubblions					
TOTAL DIRECT EXPENSES				290.42	
FIXED EXPENSES	2022	5.75	1.0000	5.75	
Implements	acre				
Tractors	acre	5.19	1.0000	5.19	
Harvesters	acre	15.93	1.0000	15.93	
TOTAL FIXED EXPENSES				26.87	
TOTAL ETVED EVERINGES					
TOTAL SPECIFIED EXPENSES				317.29	

Table 15.B Summary of estimated costs and returns per acre Soybeans, double crop after wheat, RR2X, 12R 30" Non-irrigated, All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.67	25.0000	241.75	
TOTAL INCOME				241.75	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	21.00	1.0000	21.00	
FERTILIZERS	acre	44.47	1.0000	44.47	
FUNGICIDES	acre	7.60	1.0000	7.60	
HERBICIDES	acre	48.70	1.0000	48.70	
INSECTICIDES	acre	33.53	1.0000	33.53	
SEED/PLANTS	acre	67.00	1.0000	67.00	
ADJUVANTS	acre	1.65	1.0000	1.65	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	6.75	1.0000	6.75	
CUSTOM LIME	acre	15.80	1.0000	15.80	
CROP CONSULTANT	acre	6.50	1.0000	6.50	
INOCULANT	acre	1.55	1.0000	1.55	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.0817	0.74	
OPERATOR LABOR	hour	14.68	0.2193	3.21	
UNALLOCATED LABOR	hour	14.68	0.1886	2.77	
DIESEL FUEL	gal	1.53	2.7503	4.21	
REPAIR & MAINTENANCE	acre	8.41	1.0000	8.41	
INTEREST ON OP. CAP.	acre	5.70	1.0000	5.70	
TOTAL DIRECT EXPENSES			•	290.42	
RETURNS ABOVE DIRECT EXF	ENSES			-48.67	
TOTAL FIXED EXPENSES				26.87	
TOTAL SPECIFIED EXPENSES	3		-	317.29	
RETURNS ABOVE TOTAL SPEC	CIFIED E	XPENSES		-75.54	

Table 15.C Estimated resource use for field operations, per acre Soybeans, double crop after wheat, RR2X, 12R 30"
Non-irrigated, All Areas, Mississippi, 2021

OPERATION/ S	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								hoi	ırs	
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P205)	cwt					0.8700				
Potash (60% K20)	cwt					1.3300				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Jun		0.06	0.06	0.13	0.05
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	OZ					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	ΟZ					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 31bs a.e	OZ					32.0000				
Prefix	pt					2.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Prevathon	OZ					14.0000				
Surfactant	pt					0.1000				
Bifenthrin	ΟZ					6.4000				
Incidental Pest				1.00	Sep					
App by Air (5 gal)	appl					1.0000				
<pre>IncidentalPestTrt \$8</pre>	acre					1.0000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu	_				25.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.21	0.21	0.30	0.18

Table 15.D Estimated costs for field operations, per acre Soybeans, double crop after wheat, RR2X, 12R 30" Non-irrigated, All Areas, Mississippi, 2021

OPERATION/	SIZE/]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	15.80					0.63	16.43		16.43
Custom Apply Fert	acre	7.50					0.30	7.80		7.80
Phosphorus (46% P205)	cwt	15.06					0.60	15.66		15.66
Potash (60% K20)	cwt	29.41					1.18	30.59		30.59
Soybeans Consultant	acre	6.50					0.13	6.63		6.63
Plant & Pre-Folding	12R-30		1.20	2.55	2.45		0.10	6.30	6.79	13.09
Soybean Seed RR2X	lb	67.00					1.12	68.12		68.12
CruiserMaxx Vibrance	ΟZ	7.60					0.13	7.73		7.73
Inoculant -Soybean	acre	1.55					0.03	1.58		1.58
Boundary	pt	22.14					0.37	22.51		22.51
Gramoxone SL 2.0	ΟZ	9.12					0.15	9.27		9.27
Surfactant	pt	1.32					0.02	1.34		1.34
Spray (Broadcast)	60'		0.50	0.38	0.90		0.02	1.80	1.45	3.25
Glyphosate 31bs a.e	OZ	4.16					0.06	4.22		4.22
Prefix	pt	13.28					0.18	13.46		13.46
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Acephate 90SP	lb	4.81					0.05	4.86		4.86
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Prevathon	OZ	14.70					0.15	14.85		14.85
Surfactant	pt	0.33						0.33		0.33
Bifenthrin	OZ	6.02					0.06	6.08		6.08
Incidental Pest										
App by Air (5 gal)	appl	7.00					0.05	7.05		7.05
<pre>IncidentalPestTrt \$8</pre>	acre	8.00					0.05	8.05		8.05
Header -Soybean	25' Flex		2.13	5.08	2.79		0.03	10.03	17.27	27.30
Haul Soybeans	bu	6.75					0.02	6.77		6.77
Grain Cart Soybean	700 bu		0.38	0.40	0.58			1.36	1.36	2.72
TOTALS		265.38	4.21	8.41	6.72	0.00	5.70	290.42	26.87	317.29

Table 15.E Estimated monthly income and expense flows per acre Soybeans, double crop after wheat, RR2X, 12R 30"

Non-irrigated, All Areas, Mississippi, 2021

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	241.75
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	7.00	0.00
FERTILIZERS	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.26	17.44	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.53	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.33	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.75
CUSTOM LIME	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	0.90	0.00	0.00	3.37
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.50	0.00	0.00	2.51
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	0.38	0.00	0.00	5.48
INTEREST ON OP. CAP.	2.84	0.00	0.00	0.00	0.00	0.00	0.13	1.92	0.26	0.40	0.10	0.05
TOTAL DIRECT EXPENSES	73.94	0.00	0.00	0.00	0.00	0.00	6.63	116.85	19.48	40.26	15.10	18.16
NET INCOME	-73.94	0.00	0.00	0.00	0.00	0.00	-6.63	-116.85	-19.48	-40.26	-15.10	223.59
NET INCOME TO DATE	-73.94	-73.94	-73.94	-73.94	-73.94	-73.94	-80.57	-197.42	-216.90	-257.16	-272.26	-48.67

Table 15.F Estimated returns for various price/yield combinations, per acre Soybeans, double crop after wheat, RR2X, 12R 30"
Non-irrigated, All Areas, Mississippi, 2021

PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Sovbeans			7 25	7 73	8 21	8.70	PR 9 18	9.67		10.63		11.60	12.08
boybeans	,		7.25	7.75							11.12	11.00	12.00
PERCENT	YIELD	UNIT					d	ollars					
50	12.50	bu	-196	-190	-184	-178	-172	-166	-160	-154	-148	-141	-135
			-223	-217	-211	-205	-199	-193	-186	-180	-174	-168	-162
60	15.00	bu	-178	-171	-164	-157	-149	-142	-135	-128	-120	-113	-106
			-205	-198	-191	-184	-176	-169	-162	-155	-147	-140	-133
70	17.50	bu	-161	-153	-144	-136	-127	-119	-110	-102	-93	-85	-76
			-188	-179	-171	-162	-154	-146	-137	-129	-120	-112	-103
80	20.00	bu	-144	-134	-124	-115	-105	-95	-85	-76	-66	-56	-47
			-170	-161	-151	-141	-132	-122	-112	-103	-93	-83	-74
90	22.50	bu	-126	-115	-104	-93	-83	- 72	-61	-50	-39	-28	-17
			-153	-142	-131	-120	-109	-99	-88	-77	-66	-55	-44
100	25.00	bu	-109	-97	-84	-72	-60	-48	-36	-24	-12	-0	11
			-135	-123	-111	-99	-87	-75	-63	-51	-39	-27	-15
110	27.50	bu	-91	-78	-65	-51	-38	-25	-11	1	14	28	41
			-118	-105	-91	-78	-65	-52	-38	-25	-12	1	14
120	30.00	bu	-74	-59	-45	-30	-16	-1	12	27	41	56	70
			-101	-86	-72	-57	-43	-28	-14	0	14	29	43
130	32.50	bu	-56	-41	-25	-9	6	21	37	53	68	84	100
			-83	-67	-52	-36	-20	-5	10	26	42	57	73
140	35.00	bu	-39	-22	-5	11	28	45	62	79	96	113	129
			-66	-49	-32	-15	1	18	35	52	69	86	103
150	37.50	bu	-21	-3	14	32	50	68	86	105	123	141	159
			-48	-30	-12	5	23	41	60	78	96	114	132

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 16.A Estimated costs per acre Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goa Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	1.0000	7.00	
App by Air (3 gal) FERTILIZERS	appl	5.50	0.2000	1.10	
Phosphorus (46% P205)	cwt	17.31	1.9570	33.88	
Potash (60% K20)	cwt	22.11	1.5000	33.17	
Fert 10-34-0 Zinc Plus	gal pt	2.80 2.99	4.0000 2.0000	11.20 5.98	
UAN + Sulfur (28%)	gal	1.61	32.1712	51.80	
UAN (32%) HERBICIDES	gal	1.34	39.5570	53.01	
Glyphosate 31bs a.e	OZ	0.13	32.0000	4.16	
Clarity	pt	10.73	0.5000	5.37	
Select Max Atrazine 4L	pt pt	12.74 1.91	1.0000 4.0000	12.74 7.64	
Halex GT	pt	7.13	3.6000	25.67	
INSECTICIDES		0 04	1 2000		
Bifenthrin IRRIGATION SUPPLIES	ΟZ	0.94	1.2800	1.20	
Roll-Out Pipe	ft	0.24	33.0000	7.92	
SEED/PLANTS Corn Seed BtRR	thous	3.99	34.0000	135.66	
CUSTOM FERTILIZE Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING	la	0 22	220 0000	E0 C0	
Haul Corn CUSTOM LIME	bu	0.23	220.0000	50.60	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.6660	31.60	
Corn Consultant SOIL TEST	acre	6.00	1.0000	6.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors	hour	14.68	0.4242	6.23	
Harvesters	hour	14.68	0.1009	1.48	
IRRIGATE LABOR Special Labor	hour	9.06	0.3250	2.96	
Implements	hour	9.06	0.0625	0.57	
HAND LABOR Implements	hour	9.06	0.1354	1.22	
UNALLOCATED LABOR	hour	14.67	0.4020	5.90	
DIESEL FUEL	~ 1	1 52	4 7202	7 26	
Tractors Harvesters	gal gal	1.53 1.53	4.7302 1.6890	7.26 2.58	
Roll-Out Pipe Irr.	gal	1.53	10.5901	16.20	
REPAIR & MAINTENANCE Implements	acre	8.36	1.0000	8.36	
Tractors	acre	2.96	1.0000	2.96	
Harvesters Roll-Out Pipe Irr.	acre	4.15 7.16	1.0000	4.15	
INTEREST ON OP. CAP.	acre acre	12.55	1.0000 1.0000	7.16 12.55	
TOTAL DIRECT EXPENSES FIXED EXPENSES				576.11	
Implements	acre	12.52	1.0000	12.52	
Tractors Harvesters	acre acre	17.97 15.90	1.0000	17.97 15.90	
Roll-Out Pipe Irr.	acre	51.84	1.0000	51.84	
TOTAL FIXED EXPENSES			-	98.23	
TOTAL SPECIFIED EXPENSES			-	674.34	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 16.B Summary of estimated costs and returns per acre Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goa Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.73	220.0000	820.60	
TOTAL INCOME				820.60	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	8.10	1.0000	8.10	
FERTILIZERS	acre	189.04		189.04	
HERBICIDES	acre	55.58	1.0000	55.58	
INSECTICIDES	acre	1.20		1.20	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	135.66	1.0000	135.66	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	50.60	1.0000	50.60	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	6.00	1.0000	6.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06		1.22	
IRRIGATE LABOR	hour	9.06		3.53	
OPERATOR LABOR	hour	14.68	0.5252	7.71	
UNALLOCATED LABOR	hour	14.67	0.4020	5.90	
DIESEL FUEL	gal	1.53	17.0094	26.04	
REPAIR & MAINTENANCE	acre		1.0000	22.63	
INTEREST ON OP. CAP.	acre		1.0000	12.55	
TOTAL DIRECT EXPENSES				576.11	
RETURNS ABOVE DIRECT EXP	ENSES			244.49	
TOTAL FIXED EXPENSES				98.23	
TOTAL SPECIFIED EXPENSES				674.34	
RETURNS ABOVE TOTAL SPEC	IFIED	EXPENSES		146.26	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

Table 16.C Estimated resource use for field operations, per acre Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goa Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader Phosphorus (46% P205) Potash (60% K20)	5 ton) cwt cwt	MFWD 225	0.042	1.00	Oct	1.9570 1.5000	0.04	0.04	0.08	0.03
Bed/Disk w/roller	12R-30/40	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant & Pre-Folding	12R-38	MFWD 225	0.053	1.00	Mar		0.05	0.05	0.10	0.04
Corn Seed BtRR	thous					34.0000				
Fert 10-34-0	gal					4.0000				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal				-	32.1712				
Spray (Broadcast)	60 ·	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Atrazine 4L	pt				-	4.0000				
Halex GT	pt					3.6000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	OZ				-	1.2800				
Corn Consultant	acre			1.00	May	1.0000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					39.5570				
Header - Corn	8R-38	325 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu				-	220.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
Roll-Out Pipe Irr.	acre				Jul	1.0000	0.07	0.07	0.46	
TOTALS							0.52	0.52	1.04	0.40

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

Table 16.D Estimated costs for field operations, per acre Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goa Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	31.60					1.26	32.86		32.86
Spin Spreader	5 ton		0.75	0.58	1.56		0.12	3.01	2.40	5.41
Phosphorus (46% P2O5)	cwt	33.88					1.36	35.24		35.24
Potash (60% K20)	cwt	33.17					1.33	34.50		34.50
Bed/Disk w/roller	12R-30/40		1.11	1.26	1.75		0.16	4.28	4.80	9.08
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	4.16					0.11	4.27		4.27
Clarity	pt	5.37					0.14	5.51		5.51
Select Max	pt	12.74					0.34	13.08		13.08
Plant & Pre-Folding	12R-38		0.95	2.25	1.97		0.12	5.29	5.79	11.08
Corn Seed BtRR	thous	135.66					3.17	138.83		138.83
Fert 10-34-0	gal	11.20					0.26	11.46		11.46
Zinc Plus	pt	5.98					0.14	6.12		6.12
Custom Apply Fert	acre	7.50					0.15	7.65		7.65
UAN + Sulfur (28%)	gal	51.80					1.04	52.84		52.84
Spray (Broadcast)	60 ·		0.50	0.38	0.91		0.04	1.83	1.45	3.28
Atrazine 4L	pt	7.64					0.15	7.79		7.79
Halex GT	pt	25.67					0.51	26.18		26.18
App by Air (3 gal)	appl	1.10					0.02	1.12		1.12
Bifenthrin	OZ	1.20					0.02	1.22		1.22
Corn Consultant	acre	6.00					0.10	6.10		6.10
Fert Appl (Liquid)	12R-38		0.92	1.05	1.67		0.06	3.70	3.01	6.71
UAN (32%)	gal	53.01					0.88	53.89		53.89
Header - Corn	8R-38		2.58	5.86	2.81		0.04	11.29	18.39	29.68
Grain Cart Corn	700 bu		0.45	0.48	0.70		0.01	1.64	1.62	3.26
Haul Corn	bu	50.60					0.17	50.77		50.77
Stalk Shredder Flex	20'		1.46	2.99	2.30		0.02	6.77	5.05	11.82
Roll-Out Pipe Irr.	acre	7.92	17.32	7.78	4.69		0.51	38.22	55.72	93.94
TOTALS		496.53	26.04	22.63	18.36	0.00		576.11	98.23	674.34

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 16.E Estimated monthly income and expense flows per acre Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goa Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	820.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
FERTILIZERS	67.05	0.00	0.00	0.00	0.00	17.18	51.80	53.01	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	33.31	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	135.66	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.60
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.87	0.00	0.00	0.00	0.00	1.97	0.91	1.90	3.05	0.23	0.62	5.81
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.43	0.00	0.00	0.00	0.00	0.95	0.50	0.92	12.45	4.05	0.25	4.49
REPAIR & MAINTENANCE	2.14	0.00	0.00	0.00	0.00	2.25	0.38	1.05	6.28	1.05	0.15	9.33
INTEREST ON OP. CAP.	4.42	0.00	0.00	0.00	0.78	3.69	1.89	1.08	0.39	0.05	0.01	0.24
TOTAL DIRECT EXPENSES	114.84	0.00	0.00	0.00	30.05	161.70	96.29	66.26	30.09	5.38	1.03	70.47
NET INCOME	-114.84	0.00	0.00	0.00	-30.05	-161.70	-96.29	-66.26	-30.09	-5.38	-1.03	750.13
NET INCOME TO DATE	-114.84	-114.84	-114.84	-114.84	-144.89	-306.59	-402.88	-469.14	-499.23	-504.61	-505.64	244.49

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

^{*} Lease costs are based on hourly usage costs.

Table 16.F Estimated returns for various price/yield combinations, per acre Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Corn			2.79	2.98	3.17		3.54	ODUCT PRI	3.91		4.28	4.47	4.66
PERCENT	YIELD	UNIT -					d	ollars					
50	110.00	bu	-243 -341	-222 -320	-201 -300	-181 -279	-160 -259	-140 -238	-119 -218	-99 -197	-78 -177	-58 -156	-37 -136
60	132.00	bu	-186 -284	-161 -260	-137 -235	-112 -210	-88 -186	-63 -161	-38 -137	-14 -112	10 -87	35 -63	59 -38
70	154.00	bu	-130 -228	-101 -199	-72 -170	-43 -142	-15 -113	13 -84	42 -55	70 -27	99 1	128 30	157 58
80	176.00	bu	-73 -171	-40 -139	-7 -106	24 -73	57 -40	90 -7	123 25	156 57	188 90	221 123	254 156
90	198.00	bu	-17 -115	19 -78	56 -41	93 -4	130 32	167 69	204 106	241 143	278 180	315 216	352 253
100	220.00	bu	39 - 58	80 -17	121 23	162 64	203 105	244 146	285 187	326 228	367 269	408 310	449 351
110	242.00	bu	95 -2	140 42	186 87	231 132	276 178	321 223	366 268	411 313	456 358	502 403	547 448
120	264.00	bu	152 54	201 103	250 152	299 201	349 250	398 300	447 349	496 398	546 447	595 497	644 546
130	286.00	bu	208 110	262 163	315 217	368 270	422 323	475 377	528 430	582 483	635 537	688 590	742 643
140	308.00	bu	265 166	322 224	380 281	437 339	494 396	552 454	609 511	667 569	724 626	782 683	839 741
150	330.00	bu	321 223	383 284	444 346	506 408	567 469	629 531	690 592	752 654	814 715	875 777	937 838

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 17.A Estimated costs per acre
Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
170 bu yield goal, Delta Area, Mississippi, 2021

_					
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY	,	7 00	1 0000	7 00	
App by Air (5 gal)	appl	7.00	1.0000	7.00	
App by Air (3 gal)	appl	5.50	0.2000	1.10	
FERTILIZERS (460 DOOS)		17 01	1 6200	00.00	
Phosphorus (46% P205)		17.31	1.6300	28.22	
Potash (60% K20)	cwt	22.11	1.2500	27.64	
Fert 10-34-0	gal	2.80	4.0000	11.20	
Zinc Plus	pt	2.99	2.0000	5.98	
UAN + Sulfur (28%)	gal	1.61	19.3063	31.08	
UAN (32%)	gal	1.34	36.7200	49.20	
HERBICIDES		0 10	20 202	4 1 6	
Glyphosate 3lbs a.e	OZ	0.13	32.0000	4.16	
Clarity	pt	10.73	0.5000	5.37	
Select Max	pt	12.74	1.0000	12.74	
Atrazine 4L	pt	1.91	4.0000	7.64	
Halex GT	pt	7.13	3.6000	25.67	
INSECTICIDES					
Bifenthrin	ΟZ	0.94	1.2800	1.20	
SEED/PLANTS					
Corn Seed BtRR	thous	3.99	28.0000	111.72	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	
SOIL TEST	4010	0.00	1.0000	0.00	
Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR	acre	10.00	0.0000	3.33	
Tractors	hour	14.68	0.3457	5.07	
Harvesters	hour	14.68	0.1009	1.48	
HAND LABOR	HOUL	14.00	0.1009	1.40	
	hour	9.06	0.1354	1.22	
Implements				5.90	
UNALLOCATED LABOR	hour	14.67	0.4020	3.90	
DIESEL FUEL	1	1 [2	4 0040	C 14	
Tractors	gal	1.53	4.0040	6.14	
Harvesters	gal	1.53	1.3770	2.11	
REPAIR & MAINTENANCE		0 15	1 0000	2 4 =	
Implements	acre			8.17	
Tractors	acre	2.53	1.0000		
Harvesters	acre	4.11	1.0000		
INTEREST ON OP. CAP.	acre	10.51	1.0000		
TOTAL DIRECT EXPENSES				464.69	
FIXED EXPENSES					
Implements	acre	11.28	1.0000	11.28	
Tractors	acre	15.33	1.0000	15.33	
Harvesters	acre	15.74		15.74	
TOTAL FIXED EXPENSES				42.35	
TOTAL SPECIFIED EXPENSES				507.04	

Table 17.B Summary of estimated costs and returns per acre Corn, stale seedbed, BtRR, non-irrigated, 12row 38" 170 bu yield goal, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.73	170.0000	634.10	
TOTAL INCOME				634.10	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	8.10	1.0000	8.10	
FERTILIZERS	acre	153.32	1.0000	153.32	
HERBICIDES	acre	55.58	1.0000	55.58	
INSECTICIDES	acre	1.20	1.0000	1.20	
SEED/PLANTS	acre	111.72	1.0000	111.72	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	39.10	1.0000	39.10	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	6.00	1.0000	6.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1354		
OPERATOR LABOR	hour	14.68	0.4466		
UNALLOCATED LABOR	hour	14.67		5.90	
DIESEL FUEL	gal	1.53	5.3810	8.25	
REPAIR & MAINTENANCE		14.81		14.81	
INTEREST ON OP. CAP.	acre	10.51	1.0000	10.51	
TOTAL DIRECT EXPENSES				464.69	
RETURNS ABOVE DIRECT EXE	PENSES			169.41	
TOTAL FIXED EXPENSES				42.35	
TOTAL SPECIFIED EXPENSES	5			507.04	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		127.06	

Table 17.C Estimated resource use for field operations, per acre Corn, stale seedbed, BtRR, non-irrigated, 12row 38" 170 bu yield goal, Delta Area, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P205) cwt					1.6300				
Potash (60% K20)	cwt					1.2500				
Bed/Disk w/roller	12R-30/40	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant & Pre-Folding	12R-38	MFWD 225	0.053	1.00	Mar		0.05	0.05	0.10	0.04
Corn Seed BtRR	thous					28.0000				
Fert 10-34-0	gal					4.0000				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					19.3063				
Spray (Broadcast)	60 '	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	OZ					1.2800				
Corn Consultant	acre			1.00	May	1.0000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					36.7200				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.44	0.44	0.58	0.40

Table 17.D Estimated costs for field operations, per acre
Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
170 bu yield goal, Delta Area, Mississippi, 2021

OPERATION/	SIZE/]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	31.60					1.26	32.86		32.86
Spin Spreader	5 ton		0.75	0.58	1.56		0.12	3.01	2.40	5.41
Phosphorus (46% P2O5)	cwt	28.22					1.13	29.35		29.35
Potash (60% K20)	cwt	27.64					1.11	28.75		28.75
Bed/Disk w/roller	12R-30/40		1.11	1.26	1.75		0.16	4.28	4.80	9.08
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	4.16					0.11	4.27		4.27
Clarity	pt	5.37					0.14	5.51		5.51
Select Max	pt	12.74					0.34	13.08		13.08
Plant & Pre-Folding	12R-38		0.95	2.25	1.97		0.12	5.29	5.79	11.08
Corn Seed BtRR	thous	111.72					2.61	114.33		114.33
Fert 10-34-0	gal	11.20					0.26	11.46		11.46
Zinc Plus	pt	5.98					0.14	6.12		6.12
Custom Apply Fert	acre	7.50					0.15	7.65		7.65
UAN + Sulfur (28%)	gal	31.08					0.62	31.70		31.70
Spray (Broadcast)	60 ⁻		0.50	0.38	0.91		0.04	1.83	1.45	3.28
Atrazine 4L	pt	7.64					0.15	7.79		7.79
Halex GT	pt	25.67					0.51	26.18		26.18
App by Air (3 gal)	appl	1.10					0.02	1.12		1.12
Bifenthrin	OZ	1.20					0.02	1.22		1.22
Corn Consultant	acre	6.00					0.10	6.10		6.10
Fert Appl (Liquid)	12R-38		0.92	1.05	1.67		0.06	3.70	3.01	6.71
UAN (32%)	gal	49.20					0.82	50.02		50.02
Header - Corn	8R-38		2.11	5.82	2.81		0.04	10.78	18.23	29.01
Grain Cart Corn	700 bu		0.45	0.48	0.70		0.01	1.64	1.62	3.26
Haul Corn	bu	39.10					0.13	39.23		39.23
Stalk Shredder Flex	20'		1.46	2.99	2.30		0.02	6.77	5.05	11.82
TOTALS		417.45	8.25	14.81	13.67	0.00	10.51	464.69	42.35	507.04

Table 17.E Estimated monthly income and expense flows per acre Corn, stale seedbed, BtRR, non-irrigated, 12row 38" 170 bu yield goal, Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	634.10
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
FERTILIZERS	55.86	0.00	0.00	0.00	0.00	17.18	31.08	49.20	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	33.31	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	111.72	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.10
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.31	0.00	0.00	0.00	0.00	1.97	0.91	1.67	0.00	0.00	0.00	5.81
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.86	0.00	0.00	0.00	0.00	0.95	0.50	0.92	0.00	0.00	0.00	4.02
REPAIR & MAINTENANCE	1.84	0.00	0.00	0.00	0.00	2.25	0.38	1.05	0.00	0.00	0.00	9.29
INTEREST ON OP. CAP.	3.91	0.00	0.00	0.00	0.78	3.13	1.47	1.02	0.00	0.00	0.00	0.20
TOTAL DIRECT EXPENSES	101.71	0.00	0.00	0.00	30.05	137.20	75.15	62.16	0.00	0.00	0.00	58.42
NET INCOME	-101.71	0.00	0.00	0.00	-30.05	-137.20	-75.15	-62.16	0.00	0.00	0.00	575.68
NET INCOME TO DATE	-101.71	-101.71	-101.71	-101.71	-131.76	-268.96	-344.11	-406.27	-406.27	-406.27	-406.27	169.41

^{*} Lease costs are based on hourly usage costs.

Table 17.F Estimated returns for various price/yield combinations, per acre Corn, stale seedbed, BtRR, non-irrigated, 12row 38" 170 bu yield goal, Delta Area, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Corn			2.79	2.98	3.17		PRG	ODUCT PRIC 3.73	3.91	4.10	4.28	4.47	4.66
COLII			2.73	2.50	3.17	3.33	3.34	3.73	3.71	4.10	4.20	7.7/	4.00
PERCENT	YIELD	UNIT					d	ollars					
50	85.00	bu	-207	-191	-175	-159	-143	-128	-112	-96	-80	-64	-48
			-249	-233	-217	-202	-186	-170	-154	-138	-122	-106	-91
60	102.00	bu	-163	-144	- 125	-106	-87	-68	-49	-30	-11	7	26
			-206	-186	-167	-148	-129	-110	-91	-72	-53	-34	-15
70	119.00	bu	-120	-97	- 75	-53	-31	-9	13	35	57	79	101
			-162	-140	-117	-95	-73	-51	-29	-7	15	37	59
80	136.00	bu	-76	-51	- 25	-0	25	50	75	101	126	151	177
			-118	-93	-68	-42	-17	8	33	58	84	109	134
90	153.00	bu	-32	-4	24	52	81	109	138	166	195	224	252
			-75	-46	-18	10	39	67	96	124	153	181	210
100	170.00	bu	10	42	74	106	137	169	201	232	264	296	327
			-31	0	31	63	95	127	158	190	222	253	285
110	187.00	bu	54	89	124	159	194	228	263	298	333	368	403
			12	47	81	116	151	186	221	256	291	326	360
120	204.00	bu	98	136	174	212	250	288	326	364	402	440	478
			55	93	131	169	207	246	284	322	360	398	436
130	221.00	bu	141	183	224	265	306	347	389	430	471	512	553
			99	140	181	223	264	305	346	387	429	470	511
140	238.00	bu	185	229	274	318	362	407	451	496	540	584	629
			143	187	231	276	320	365	409	453	498	542	586
150	255.00	bu	229	276	324	371	419	466	514	561	609	657	704
			186	234	281	329	376	424	472	519	567	614	662

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 18.A Estimated costs per acre
Corn, conventional tillage, RR2 seed, 12-row 38",
220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi,2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES CUSTOM SPRAY		dollars		dollars	
App by Air (5 gal) App by Air (3 gal) FERTILIZERS	appl appl	7.00 5.50	1.0000 1.2000	7.00 6.60	
Phosphorus(46% P205) Potash (60% K20)	cwt	17.31 22.11	1.9570 1.5000	33.88 33.17	
UAN + Sulfur (28%) UAN (32%) HERBICIDES	gal gal	1.61 1.34	32.1712 39.5570	51.80 53.01	
Glyphosate 3lbs a.e Clarity Select Max Atrazine 4L	oz pt pt pt	0.13 10.73 12.74 1.91	32.0000 0.5000 1.0000 4.0000	4.16 5.37 12.74 7.64	
Halex GT INSECTICIDES Bifenthrin	pt oz	7.13 0.94	3.6000 1.2800	25.67 1.20	
Intrepid 2F IRRIGATION SUPPLIES	OZ	1.94	4.0000	7.76	
Roll-Out Pipe SEED/PLANTS Corn Seed RR2	ft	0.24 3.03	33.0000	7.92 103.02	
CUSTOM FERTILIZE Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING Haul Corn CUSTOM LIME	bu	0.23	220.0000	50.60	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.6660	31.60	
Corn Consultant SOIL TEST Soil Test	acre	6.00 10.00	1.0000	6.00 3.33	
OPERATOR LABOR Tractors	hour hour	14.68 14.68	0.6423 0.1009	9.45 1.48	
Harvesters Self-Propelled IRRIGATE LABOR	hour	14.68	0.0176	0.26	
Special Labor Implements HAND LABOR	hour hour	9.06 9.06	0.3250 0.0625	2.96 0.57	
Implements Self-Propelled UNALLOCATED LABOR DIESEL FUEL	hour hour hour	9.06 9.06 14.68	0.1175 0.0088 0.6141	1.06 0.08 9.02	
Tractors Harvesters Self-Propelled Roll-Out Pipe Irr.	gal gal gal gal	1.53 1.53 1.53 1.53	7.2557 1.3770 0.1586 10.5901	11.12 2.11 0.24 16.20	
REPAIR & MAINTENANCE Implements Tractors Harvesters	acre acre acre	10.52 4.54 4.11	1.0000 1.0000 1.0000	10.52 4.54 4.11	
Self-Propelled Roll-Out Pipe Irr. INTEREST ON OP. CAP.	acre acre acre	0.20 7.16 12.02	1.0000 1.0000 1.0000	0.20 7.16 12.02	
TOTAL DIRECT EXPENSES FIXED EXPENSES				553.07	
Implements Tractors Harvesters Self-Propelled Roll-Out Pipe Irr.	acre acre acre acre	17.74 27.65 15.74 1.30 51.84	1.0000 1.0000 1.0000 1.0000 1.0000	17.74 27.65 15.74 1.30 51.84	
TOTAL FIXED EXPENSES				114.27	
TOTAL SPECIFIED EXPENSES				667.34	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

Table 18.B Summary of estimated costs and returns per acre
Corn, conventional tillage, RR2 seed, 12-row 38",
220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.73	220.0000	820.60	
TOTAL INCOME				820.60	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.60	1.0000	13.60	
FERTILIZERS	acre	171.86	1.0000	171.86	
HERBICIDES	acre	55.58	1.0000		
INSECTICIDES	acre	8.96	1.0000	8.96	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	103.02	1.0000	103.02	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	50.60	1.0000	50.60	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	6.00	1.0000	6.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1263	1.14	
IRRIGATE LABOR	hour	9.06	0.3875	3.53	
OPERATOR LABOR	hour	14.68	0.7609	11.19	
UNALLOCATED LABOR					
		1.53			
REPAIR & MAINTENANCE			1.0000	26.53	
INTEREST ON OP. CAP.	acre	12.02	1.0000	12.02	
TOTAL DIRECT EXPENSES				553.07	
RETURNS ABOVE DIRECT EXE	ENSES			267.53	
TOTAL FIXED EXPENSES				114.27	
TOTAL SPECIFIED EXPENSES	}			667.34	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		153.26	

Table 18.C Estimated resource use for field operations, per acre
Corn, conventional tillage, RR2 seed, 12-row 38",
220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT		TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Subsoiler	3 shank	MFWD 225	0.204	0.50	Oct		0.10	0.10	0.10	0.09
Disk Harrow	42'	MFWD 225	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P205) cwt					1.9570				
Potash (60% K20)	cwt					1.5000				
Bed/Disk w/roller	12R-30/40	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Row Cond./Roll-Fold.	40'	MFWD 225	0.046	1.00	Mar		0.04	0.04	0.04	0.04
Plant - Folding	12R-38	MFWD 225	0.049	1.00	Mar		0.04	0.04	0.09	0.04
Corn Seed RR2	thous					34.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal				_	32.1712				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Atrazine 4L	pt				-	4.0000				
Halex GT	pt					3.6000				
Corn Consultant	acre			1.00	Mav	1.0000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	OZ				1	1.2800				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Mav		0.05	0.05	0.07	0.04
UAN (32%)	gal	111.112 220	0.001	1.00	1101	39.5570	0.00	0.00	0.07	0.01
Cultivate	12R-38	MFWD 225	0.054	1.00	May	03.0070	0.05	0.05	0.05	0.04
App by Air (3 gal)	appl	111110 220	0.001	1.00	Jun	1.0000	0.00	0.00	0.00	0.01
Intrepid 2F	OZ			1.00	oun	4.0000				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep	4.0000	0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.10	0.02
Haul Corn	bu	TIE WU ZZJ	0.023	1.00	seb	220.0000	0.02	0.02	0.02	0.02
Stalk Shredder Flex	20 '	MFWD 225	0.082	1.00	Sep	220.0000	0.08	0.08	0.08	0.07
Roll-Out Pipe Irr.	acre	TIE WD 22J	0.002	1.00	Jul	1.0000	0.03	0.03	0.46	0.07
MOII Out Tipe III.	acre				Jul	1.0000				
TOTALS							0.76	0.74	1.27	0.61

Table 18.D Estimated costs for field operations, per acre
Corn, conventional tillage, RR2 seed, 12-row 38",
220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Subsoiler	3 shank		1.81	0.96	2.85		0.22	5.84	5.04	10.88
Disk Harrow	42'		0.83	1.73	1.31		0.15	4.02	4.91	8.93
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	31.60					1.26	32.86		32.86
Spin Spreader	5 ton		0.75	0.58	1.56		0.12	3.01	2.40	5.41
Phosphorus (46% P2O5)	cwt	33.88					1.36	35.24		35.24
Potash (60% K20)	cwt	33.17					1.33	34.50		34.50
Bed/Disk w/roller	12R-30/40		1.11	1.26	1.75		0.16	4.28	4.80	9.08
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	ΟZ	4.16					0.11	4.27		4.27
Clarity	pt	5.37					0.14	5.51		5.51
Select Max	pt	12.74					0.34	13.08		13.08
Row Cond./Roll-Fold.	40'		0.83	0.74	1.31		0.07	2.95	3.10	6.05
Plant - Folding	12R-38		0.88	1.91	1.84		0.11	4.74	5.06	9.80
Corn Seed RR2	thous	103.02					2.40	105.42		105.42
Custom Apply Fert	acre	7.50					0.15	7.65		7.65
UAN + Sulfur (28%)	gal	51.80					1.04	52.84		52.84
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.57		0.02	1.03	1.30	2.33
Atrazine 4L	pt	7.64					0.15	7.79		7.79
Halex GT	pt	25.67					0.51	26.18		26.18
Corn Consultant	acre	6.00					0.10	6.10		6.10
App by Air (3 gal)	appl	1.10					0.02	1.12		1.12
Bifenthrin	OZ	1.20					0.02	1.22		1.22
Fert Appl (Liquid)	12R-38		0.92	1.05	1.67		0.06	3.70	3.01	6.71
UAN (32%)	gal	53.01					0.88	53.89		53.89
Cultivate	12R-38		0.96	1.03	1.52		0.06	3.57	4.03	7.60
App by Air (3 gal)	appl	5.50	0.30	1.00	1.02		0.07	5.57	1.00	5.57
Intrepid 2F	OZ	7.76					0.10	7.86		7.86
Header - Corn	8R-38	, , , ,	2.11	5.82	2.81		0.04	10.78	18.23	29.01
Grain Cart Corn	700 bu		0.45	0.48	0.70		0.01	1.64	1.62	3.26
Haul Corn	bu	50.60	0.10	0.10	0.70		0.17	50.77	1.02	50.77
Stalk Shredder Flex	20'	30.00	1.46	2.99	2.30		0.02	6.77	5.05	11.82
Roll-Out Pipe Irr.	acre	7.92	17.32	7.78	4.69		0.51	38.22	55.72	93.94
000 11p0 111.										
TOTALS		459.97	29.67	26.53	24.88	0.00	12.02	553.07	114.27	667.34

Table 18.E Estimated monthly income and expense flows per acre
Corn, conventional tillage, RR2 seed, 12-row 38",
220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	820.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	1.10	5.50	0.00	0.00	0.00
FERTILIZERS	67.05	0.00	0.00	0.00	0.00	0.00	51.80	53.01	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	33.31	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	7.76	0.00	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	103.02	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.60
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	8.03	0.00	0.00	0.00	0.00	3.15	0.57	3.42	3.05	0.23	0.62	5.81
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	5.07	0.00	0.00	0.00	0.00	1.71	0.24	1.88	12.45	4.05	0.25	4.02
REPAIR & MAINTENANCE	4.83	0.00	0.00	0.00	0.00	2.65	0.20	2.08	6.28	1.05	0.15	9.29
INTEREST ON OP. CAP.	4.79	0.00	0.00	0.00	0.78	2.58	1.87	1.14	0.56	0.05	0.01	0.24
TOTAL DIRECT EXPENSES	124.70	0.00	0.00	0.00	30.05	113.11	95.49	69.83	43.52	5.38	1.03	69.96
NET INCOME	-124.70	0.00	0.00	0.00	-30.05	-113.11	-95.49	-69.83	-43.52	-5.38	-1.03	750.64
NET INCOME TO DATE	-124.70	-124.70	-124.70	-124.70	-154.75	-267.86	-363.35	-433.18	-476.70	-482.08	-483.11	267.53

^{*} Lease costs are based on hourly usage costs.

Table 18.F Estimated returns for various price/yield combinations, per acre Corn, conventional tillage, RR2 seed, 12-row 38", 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Corn			2.79	2.98	3.17		3.54	3.73	3.91	4.10	4.28	4.47	4.66
PERCENT	YIELD	UNIT -					d	ollars					
50	110.00	bu	-219 -334	-199 -313	-178 -293	-158 -272	-137 -252	-117 -231	-96 -211	-76 -190	-55 -170	-35 -149	-14 -129
60	132.00	bu	-163 -277	-138 -253	-114 -228	-89 -203	-65 -179	-40 -154	-15 -130	8 -105	33 -80	58 -56	82 -31
70	154.00	bu	-107 -221	-78 -192	-49 -163	-20 -135	7 -106	36 -77	65 -48	94 -20	122 8	151 37	180 65
80	176.00	bu	-50 -164	-17 -132	15 -99	47 -66	80 -33	113 -0	146 32	179 64	212 97	244 130	277 163
90	198.00	bu	5 -108	42 -71	79 -34	116 2	153 39	190 76	227 113	264 150	301 187	338 223	375 260
100	220.00	bu	62 -51	103 -10	144 30	185 71	226 112	267 153	308 194	349 235	390 276	431 317	472 358
110	242.00	bu	118 4	163 49	209 94	254 139	299 185	344 230	389 275	434 320	479 365	525 410	570 455
120	264.00	bu	175 61	224 110	273 159	323 208	372 257	421 307	470 356	519 405	569 454	618 504	667 553
130	286.00	bu	231 117	285 170	338 224	391 277	445 330	498 384	551 437	605 490	658 544	711 597	765 650
140	308.00	bu	288 173	345 231	403 288	460 346	518 403	575 461	632 518	690 576	747 633	805 690	862 748
150	330.00	bu	344 230	406 291	467 353	529 415	590 476	652 538	713 599	775 661	837 722	898 784	960 845

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 19.A Estimated costs per acre
Corn, conventional tillage, RR2 seed, 12-row 38"
170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY	,	7 00	1 0000	7 00	
App by Air (5 gal)	appl	7.00	1.0000	7.00	
App by Air (3 gal)	appl	5.50	1.2000	6.60	
FERTILIZERS	a+	17 21	1 6200	28.22	
Phosphorus (46% P205) Potash (60% K20)	cwt	17.31 22.11	1.6300 1.2500	27.64	
UAN + Sulfur (28%)	gal	1.61	19.3063	31.08	
UAN (32%)	gal	1.34	36.7200	49.20	
HERBICIDES	gai	1.54	30.7200	47.20	
Glyphosate 31bs a.e	ΟZ	0.13	32.0000	4.16	
Clarity	pt	10.73	0.5000	5.37	
Select Max	pt	12.74	1.0000	12.74	
Atrazine 4L	pt	1.91	4.0000	7.64	
Halex GT	pt	7.13	3.6000	25.67	
INSECTICIDES	-				
Bifenthrin	ΟZ	0.94	1.2804	1.20	
Intrepid 2F	ΟZ	1.94	4.0000	7.76	
SEED/PLANTS					
Corn Seed RR2	thous	3.03	28.0000	84.84	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR	,	1.4.60	0 4000		
Tractors	hour	14.68	0.4903	7.20	
Harvesters	hour	14.68	0.1009	1.48	
Self-Propelled	hour	14.68	0.0176	0.26	
HAND LABOR	house	0.06	0 1175	1 06	
Implements Self-Propelled	hour hour	9.06 9.06	0.1175 0.0088	1.06 0.08	
UNALLOCATED LABOR	hour	14.67	0.5480	8.04	
DIESEL FUEL	HOUL	14.07	0.3400	0.04	
Tractors	gal	1.53	5.6788	8.69	
Harvesters	gal	1.53	1.3770	2.11	
Self-Propelled	gal	1.53	0.1586	0.24	
REPAIR & MAINTENANCE	gui	1.00	0.1000	0.21	
Implements	acre	9.41	1.0000	9.41	
Tractors	acre	3.57	1.0000	3.57	
Harvesters	acre	4.11	1.0000	4.11	
Self-Propelled	acre	0.20	1.0000		
INTEREST ON OP. CAP.	acre		1.0000	10.02	
TOTAL DIRECT EXPENSES				443.12	
FIXED EXPENSES					
Implements	acre	14.61	1.0000	14.61	
Tractors	acre	21.75	1.0000	21.75	
Harvesters	acre	15.74	1.0000	15.74	
Self-Propelled	acre	1.30	1.0000	1.30	
TOTAL FIXED EXPENSES				53.40	
				406.50	
TOTAL SPECIFIED EXPENSES				496.52	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Table 19.B Summary of estimated costs and returns per acre
Corn, conventional tillage, RR2 seed, 12-row 38"
170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.73	170.0000	634.10	
TOTAL INCOME				634.10	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.60	1.0000	13.60	
FERTILIZERS	acre	136.14	1.0000	136.14	
HERBICIDES	acre	55.58	1.0000	55.58	
INSECTICIDES	acre	8.96	1.0000	8.96	
SEED/PLANTS	acre	84.84	1.0000	84.84	
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	
HAULING	acre	39.10	1.0000	39.10	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	6.00	1.0000	6.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1263	1.14	
OPERATOR LABOR	hour	14.68	0.6089	8.94	
UNALLOCATED LABOR	hour	14.67	0.5480	8.04	
DIESEL FUEL	gal	1.53	7.2145	11.04	
REPAIR & MAINTENANCE	acre	17.29	1.0000	17.29	
INTEREST ON OP. CAP.	acre	10.02	1.0000	10.02	
TOTAL DIRECT EXPENSES			•	443.12	
RETURNS ABOVE DIRECT EXE	PENSES			190.98	
TOTAL FIXED EXPENSES				53.40	
TOTAL SPECIFIED EXPENSES	5		•	496.52	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		137.58	

Table 19.C Estimated resource use for field operations, per acre
Corn, conventional tillage, RR2 seed, 12-row 38"
170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Subsoiler	3 shank	MFWD 225	0.204	0.50	Oct		0.10	0.10	0.10	0.09
Disk Harrow	42'	MFWD 225	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P205)	cwt					1.6300				
Potash (60% K20)	cwt					1.2500				
Bed/Disk (Hipper)	12R-38	MFWD 225	0.049	1.00	Oct		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Row Cond Folding	38'	MFWD 225	0.040	1.00	Mar		0.04	0.04	0.04	0.03
Plant - Folding	12R-38	MFWD 225	0.049	1.00	Mar		0.04	0.04	0.09	0.04
Corn Seed RR2	thous					28.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal				-	19.3063				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Atrazine 4L	pt				-	4.0000				
Halex GT	pt					3.6000				
Corn Consultant	acre			1.00	Mav	1.0000				
App by Air (3 gal)	appl			0.20	Mav	0.2000				
Bifenthrin	OZ				_	1.2804				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	Mav		0.05	0.05	0.07	0.04
UAN (32%)	gal				_	36.7200				
App by Air (3 gal)	appl			1.00	Jun	1.0000				
Intrepid 2F	OZ					4.0000				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu				1	170.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.60	0.59	0.73	0.54

Table 19.D Estimated costs for field operations, per acre
Corn, conventional tillage, RR2 seed, 12-row 38"
170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					(dollars-				
Subsoiler	3 shank		1.81	0.96	2.85		0.22	5.84	5.04	10.88
Disk Harrow	42'		0.83	1.73	1.31		0.15	4.02	4.91	8.93
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	31.60					1.26	32.86		32.86
Spin Spreader	5 ton		0.75	0.58	1.56		0.12	3.01	2.40	5.41
Phosphorus (46% P2O5)	cwt	28.22					1.13	29.35		29.35
Potash (60% K20)	cwt	27.64					1.11	28.75		28.75
Bed/Disk (Hipper)	12R-38		0.87	0.99	1.37		0.13	3.36	3.81	7.17
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	4.16					0.11	4.27		4.27
Clarity	pt	5.37					0.14	5.51		5.51
Select Max	pt	12.74					0.34	13.08		13.08
Row Cond Folding	38 '		0.72	0.58	1.14		0.06	2.50	2.97	5.47
Plant - Folding	12R-38		0.88	1.91	1.84		0.11	4.74	5.06	9.80
Corn Seed RR2	thous	84.84					1.98	86.82		86.82
Custom Apply Fert	acre	7.50					0.15	7.65		7.65
UAN + Sulfur (28%)	gal	31.08					0.62	31.70		31.70
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.57		0.02	1.03	1.30	2.33
Atrazine 4L	pt	7.64					0.15	7.79		7.79
Halex GT	pt	25.67					0.51	26.18		26.18
Corn Consultant	acre	6.00					0.10	6.10		6.10
App by Air (3 gal)	appl	1.10					0.02	1.12		1.12
Bifenthrin	OZ	1.20					0.02	1.22		1.22
Fert Appl (Liquid)	12R-38		0.92	1.05	1.67		0.06	3.70	3.01	6.71
UAN (32%)	gal	49.20					0.82	50.02		50.02
App by Air (3 gal)	appl	5.50					0.07	5.57		5.57
Intrepid 2F	OZ	7.76					0.10	7.86		7.86
Header - Corn	8R-38		2.11	5.82	2.81		0.04	10.78	18.23	29.01
Grain Cart Corn	700 bu		0.45	0.48	0.70		0.01	1.64	1.62	3.26
Haul Corn	bu	39.10					0.13	39.23		39.23
Stalk Shredder Flex	20'	03.10	1.46	2.99	2.30		0.02	6.77	5.05	11.82
TOTALS		386.65	11.04	17.29	18.12	0.00	10.02	443.12	53.40	496.52

Table 19.E Estimated monthly income and expense flows per acre Corn, conventional tillage, RR2 seed, 12-row 38" 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	634.10
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	1.10	5.50	0.00	0.00	0.00
FERTILIZERS	55.86	0.00	0.00	0.00	0.00	0.00	31.08	49.20	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.27	0.00	33.31	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	7.76	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	84.84	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.10
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	7.09	0.00	0.00	0.00	0.00	2.98	0.57	1.67	0.00	0.00	0.00	5.81
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	4.26	0.00	0.00	0.00	0.00	1.60	0.24	0.92	0.00	0.00	0.00	4.02
REPAIR & MAINTENANCE	4.26	0.00	0.00	0.00	0.00	2.49	0.20	1.05	0.00	0.00	0.00	9.29
INTEREST ON OP. CAP.	4.25	0.00	0.00	0.00	0.78	2.15	1.45	1.02	0.17	0.00	0.00	0.20
TOTAL DIRECT EXPENSES	110.65	0.00	0.00	0.00	30.05	94.06	74.35	62.16	13.43	0.00	0.00	58.42
NET INCOME	-110.65	0.00	0.00	0.00	-30.05	-94.06	-74.35	-62.16	-13.43	0.00	0.00	575.68
NET INCOME TO DATE	-110.65	-110.65	-110.65	-110.65	-140.70	-234.76	-309.11	-371.27	-384.70	-384.70	-384.70	190.98

^{*} Lease costs are based on hourly usage costs.

Table 19.F Estimated returns for various price/yield combinations, per acre Corn, conventional tillage, RR2 seed, 12-row 38"
170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Corn			2.79	2.98	3.17		3.54	ODUCT PRI	3.91		4.28	4.47	4.66
PERCENT	YIELD	UNIT -					d	ollars					
50	85.00	bu	-185 -239	-169 -223	-154 -207	-138 -191	-122 -175	-106 -159	-90 -144	-74 -128	-58 -112	-43 -96	-27 -80
60	102.00	bu	-142 -195	-123 -176	-104 -157	-85 -138	-65 -119	-46 -100	-27 -81	-8 -62	10 -43	29 -24	48 -5
70	119.00	bu	-98 -151	-76 -129	-54 -107	-31 -85	-9 -63	12 -40	34 -18	56 3	79 25	101 47	123 70
80	136.00	bu	-54 -108	-29 -82	-4 -57	21 -32	46 -6	72 18	97 43	122 69	148 94	173 120	198 145
90	153.00	bu	-11 -64	17 -36	45 -7	74 21	102 49	131 78	160 106	188 135	217 163	245 192	274 220
100	170.00	bu	32 -20	64 10	95 42	127 74	159 105	190 137	222 169	254 200	286 232	317 264	349 296
110	187.00	bu	76 22	110 57	145 92	180 127	215 162	250 197	285 231	320 266	355 301	389 336	424 371
120	204.00	bu	119 66	157 104	195 142	233 180	271 218	309 256	348 294	386 332	424 370	462 408	500 446
130	221.00	bu	163 109	204 151	245 192	287 233	328 274	369 316	410 357	451 398	493 439	534 480	575 522
140	238.00	bu	206 153	251 197	295 242	340 286	384 331	428 375	473 419	517 464	562 508	606 553	650 597
150	255.00	bu	250 197	298 244	345 292	393 339	440 387	488 435	535 482	583 530	631 577	678 625	726 672

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 20.A Estimated costs per acre Grain sorghum, 12-row 30", 100 bu yield goal All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) FERTILIZERS	appl	7.00	1.0000	7.00	
DAP	cwt	20.99	1.3000	27.29	
Potash (60% K20)	cwt	22.11	1.0000	22.11	
UAN + Sulfur (28%)	gal	1.61	38.2883	61.64	
HERBICIDES Glyphosate 31bs a.e	OZ	0.13	32.0000	4.16	
2,4-D Amine 4	pt	2.25	2.0000	4.50	
Select Max	pt	12.74	1.0000	12.74	
Lexar	pt	7.55	6.0000	45.30	
INSECTICIDES					
Sivanto Prime	ΟZ	2.67	8.0000	21.36	
Karate Z Prevathon	OZ	2.52	1.5000	3.78 14.70	
SEED/PLANTS	ΟZ	1.05	14.0000	14.70	
Sorghum Concept+ Po ADJUVANTS	lb	3.82	4.5000	17.19	
Surfactant HAULING	pt	3.30	0.3000	0.99	
Haul Sorghum CUSTOM LIME	bu	0.25	100.0000	25.00	
Lime (Spread) CROP CONSULTANT	ton	47.45	0.6660	31.60	
Sorghum Consultant	acre	6.00	1.0000	6.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors	hour	14.68	0.2915	4.27	
Harvesters	hour	14.68	0.1021	1.50	
Self-Propelled HAND LABOR	hour	14.68	0.0661	0.95	
Implements	hour	9.06	0.1442	1.31	
Self-Propelled	hour	9.06	0.0330	0.30	
UNALLOCATED LABOR DIESEL FUEL	hour	14.64	0.4138	6.06	
Tractors	gal	1.53 1.53	3.3766	5.17	
Harvesters Self-Propelled	gal gal	1.53	1.3935 0.8505	2.13 1.30	
REPAIR & MAINTENANCE	gai	1.00	0.0303	1.50	
Implements	acre	5.46	1.0000	5.46	
Tractors	acre	2.13	1.0000	2.13	
Harvesters	acre	4.16	1.0000	4.16	
Self-Propelled	acre	1.05	1.0000	1.05	
INTEREST ON OP. CAP.	acre	6.65	1.0000	6.65	
TOTAL DIRECT EXPENSES FIXED EXPENSES				351.13	
Implements	acre	10.19	1.0000	10.19	
Tractors	acre	12.94	1.0000	12.94	
Harvesters	acre	15.93	1.0000	15.93	
Self-Propelled	acre	6.60	1.0000	6.60	
TOTAL FIXED EXPENSES				45.66	
TOTAL SPECIFIED EXPENSES				396.79	

Table 20.B Summary of estimated costs and returns per acre Grain sorghum, 12-row 30", 100 bu yield goal All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Grain Sorghum	bu	3.55	100.0000	355.00	
TOTAL INCOME				355.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.00	1.0000	7.00	
FERTILIZERS		111.04		111.04	
HERBICIDES	acre	66.70	1.0000	66.70	
INSECTICIDES	acre	39.84	1.0000	39.84	
SEED/PLANTS	acre	17.19	1.0000	17.19	
ADJUVANTS	acre	0.99	1.0000	0.99	
HAULING		25.00	1.0000	25.00	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT				6.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1772	1.61	
OPERATOR LABOR	hour	14.68		6.72	
UNALLOCATED LABOR	hour	14.64	0.4138	6.06	
DIESEL FUEL	gal	1.53	5.6208	8.60	
REPAIR & MAINTENANCE	acre	12.80	1.0000	12.80	
INTEREST ON OP. CAP.	acre	6.65	1.0000	6.65	
TOTAL DIRECT EXPENSES				351.13	
RETURNS ABOVE DIRECT EXF	ENSES			3.87	
TOTAL FIXED EXPENSES				45.66	
TOTAL SPECIFIED EXPENSES	}			396.79	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		-41.79	

Table 20.C Estimated resource use for field operations, per acre Grain sorghum, 12-row 30", 100 bu yield goal All Areas, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Disk Harrow	32'	MFWD 225	0.061	1.00	Nov		0.06	0.06	0.06	0.05
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.3000				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Apr		0.04	0.04	0.08	0.03
DAP	cwt					1.3000				
Potash (60% K20)	cwt					1.0000				
Field Cultivate Fld	32'	MFWD 225	0.046	1.00	Apr		0.04	0.04	0.04	0.04
Plant - Folding Sorghum Concept+ Po	12R-30 lb	MFWD 225	0.062	1.00	Apr	4.5000	0.06	0.06	0.12	0.05
Sprayer 800gal	80' 250hp		0.013	1.00	Apr			0.01	0.01	0.01
Lexar	pt				_	6.0000				
Sorghum Consultant	acre			1.00	Mav	1.0000				
Fert Appl (Liquid)	12R-30	MFWD 225	0.078	1.00	May		0.07	0.07	0.11	0.07
UAN + Sulfur (28%)	gal				-	38.2883				
Sprayer 800gal	80° 250hp		0.013	1.00	Jun			0.01	0.01	0.01
Sivanto Prime	OZ					4.0000				
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01
Karate Z	OZ					1.5000				
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01
Prevathon	OZ					14.0000				
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01
Sivanto Prime	OZ					4.0000				
Header Wheat/Sorghum	25' Rigid	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09
Haul Sorghum	bu	-			-	100.0000				
TOTALS							0.45	0.39	0.63	0.41

Table 20.D Estimated costs for field operations, per acre Grain sorghum, 12-row 30", 100 bu yield goal All Areas, Mississippi, 2021

OPERATION/	SIZE/]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE			COST	COST
					(dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Lime (Spread)	ton	31.60					1.26	32.86		32.86
Disk Harrow	32'		1.09	1.50	1.71		0.16	4.46	4.85	9.31
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	4.16					0.11	4.27		4.27
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Select Max	pt	12.74					0.34	13.08		13.08
Surfactant	pt	0.99					0.03	1.02		1.02
Spin Spreader	5 ton		0.75	0.58	1.56		0.06	2.95	2.40	5.35
DAP	cwt	27.29					0.55	27.84		27.84
Potash (60% K20)	cwt	22.11					0.44	22.55		22.55
Field Cultivate Fld	32'		0.83	0.85	1.30		0.06	3.04	4.14	7.18
Plant - Folding	12R-30		1.11	2.15	2.32		0.11	5.69	5.90	11.59
Sorghum Concept+ Po	lb	17.19					0.34	17.53		17.53
Sprayer 800gal	80' 250hp		0.26	0.21	0.42		0.02	0.91	1.32	2.23
Lexar	pt	45.30					0.91	46.21		46.21
Sorghum Consultant	acre	6.00					0.10	6.10		6.10
Fert Appl (Liquid)	12R-30		1.39	1.86	2.55		0.10	5.90	4.90	10.80
UAN + Sulfur (28%)	gal	61.64					1.03	62.67		62.67
Sprayer 800gal	80' 250hp		0.26	0.21	0.42		0.01	0.90	1.32	2.22
Sivanto Prime	OZ	10.68					0.14	10.82		10.82
Sprayer 800gal	80' 250hp		0.26	0.21	0.42		0.01	0.90	1.32	2.22
Karate Z	OZ	3.78					0.04	3.82		3.82
Sprayer 800gal	80' 250hp		0.26	0.21	0.42		0.01	0.90	1.32	2.22
Prevathon	OZ	14.70					0.15	14.85		14.85
Sprayer 800gal	80' 250hp		0.26	0.21	0.42		0.01	0.90	1.32	2.22
Sivanto Prime	oz	10.68					0.11	10.79		10.79
Header Wheat/Sorghum	25' Rigid		2.13	4.81	2.85		0.03	9.82	16.87	26.69
Haul Sorghum	bu	25.00					0.08	25.08		25.08
TOTALS		308.69	8.60	12.80	14.39	0.00	6.65	351.13	45.66	396.79

Table 20.E Estimated monthly income and expense flows per acre Grain sorghum, 12-row 30", 100 bu yield goal All Areas, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<u></u>						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	355.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	49.40	61.64	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	21.40	0.00	45.30	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.68	29.16	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	17.19	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00
CUSTOM LIME	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	1.71	0.00	0.00	0.00	0.00	5.60	2.55	0.42	1.26	0.00	2.85
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	1.09	0.00	0.00	0.00	0.00	2.95	1.39	0.26	0.78	0.00	2.13
REPAIR & MAINTENANCE	0.00	1.50	0.00	0.00	0.00	0.00	3.79	1.86	0.21	0.63	0.00	4.81
INTEREST ON OP. CAP.	1.39	0.16	0.00	0.00	0.79	0.00	2.49	1.23	0.15	0.33	0.00	0.11
TOTAL DIRECT EXPENSES	36.32	4.46	0.00	0.00	30.18	0.00	126.72	74.67	11.72	32.16	0.00	34.90
NET INCOME	-36.32	-4.46	0.00	0.00	-30.18	0.00	-126.72	-74.67	-11.72	-32.16	0.00	320.10
NET INCOME TO DATE	-36.32	-40.78	-40.78	-40.78	-70.96	-70.96	-197.68	-272.35	-284.07	-316.23	-316.23	3.87

^{*} Lease costs are based on hourly usage costs.

Table 20.F Estimated returns for various price/yield combinations, per acre Grain sorghum, 12-row 30", 100 bu yield goal All Areas, Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95 PR	100	105	110	115	120	125
Grain S	orghum		2.66	2.84	3.01		3.37	3.55	3.72		4.08	4.26	4.43
PERCENT	YIELD	UNIT					d	ollars					
50	50.00	bu	-205 -251	-196 -242	-187 -233	-178 -224	-169 -215	-161 -206	-152 -197	-143 -189	-134 -180	-125 -171	-116 -162
60	60.00	bu	-181 -227	-170 -216	-160 -205	-149 -195	-138 -184	-128 -173	-117 -163	-106 -152	-96 -141	-85 -131	-74 -120
70	70.00	bu	-157 -202	-144 -190	-132 -178	-119 -165	-107 -153	-95 -140	-82 -128	-70 -115	-57 -103	-45 -91	-32 -78
80	80.00	bu	-133 -178	-118 -164	-104 -150	-90 -136	-76 -121	-62 -107	-47 -93	-33 -79	-19 -65	-5 -50	8 -36
90	90.00	bu	-108 -154	-93 -138	-77 -122	-61 -106	-45 -90	-29 -74	-13 -58	2 -42	18 -26	34 -10	50 5
100	100.00	bu	-84 -130	-67 -112	-49 -95	-31 -77	-13 -59	3 -41	21 -24	39 -6	57 11	74 29	92 46
110	110.00	bu	-60 -106	-41 -86	-21 -67	-2 -47	17 -28	36 -8	56 10	75 30	95 49	114 69	134 88
120	120.00	bu	-36 -82	-15 -61	5 -39	27 -18	48	69 24	91 45	112 66	133 88	155 109	176 130
130	130.00	bu	-12 -58	10 -35	33 -12	56 11	79 34	102 57	125 80	148 103	172 126	195 149	218 172
140	140.00	bu	11 -34	36 -9	61 15	86 40	110 65	135 90	160 115	185 139	210 164	235 189	260 214
150	150.00	bu	35 - 9	62 16	88 43	115 69	142 96	168 123	195 149	222 176	248 203	275 229	301 256

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 21.A Estimated costs per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	2.0000	14.00	
App by Air (3 gal)	appl	5.50	1.0000	5.50	
FERTILIZERS					
DAP	cwt	20.99	1.0000	20.99	
Potash (60% K20)	cwt	22.11	0.7500	16.58	
Fert 41-0-0-4	cwt	18.22	3.0480	55.53	
FUNGICIDES					
CruiserMaxx Vibrance	OZ	4.75	4.5000	21.38	
Prosaro	OZ	2.42	8.0000	19.36	
HERBICIDES					
Axiom	OZ	1.94	10.0000	19.40	
Harmony Extra SG	OZ	11.06	0.7500	8.30	
Axial XL	OZ	1.15	16.4000	18.86	
INSECTICIDES					
Karate Z	ΟZ	2.52	1.5000	3.78	
SEED/PLANTS					
Wheat Seed Private	lb	0.28	90.0000	25.20	
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.50	3.0480	22.86	
HAULING					
Haul Wheat	bu	0.26	70.0000	18.20	
CUSTOM LIME	Du	0.20	70.0000	10.20	
Lime (Spread)	ton	47.45	0.6660	31.60	
CROP CONSULTANT	COII	47.45	0.0000	31.00	
	2 2 2 2	5 E O	1 0000	E E O	
Wheat Consultant	acre	5.50	1.0000	5.50	
SOIL TEST		10 00	0 2220	2 22	
Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR	1	14 60	0 0100	2 10	
Tractors	hour	14.68	0.2129	3.12	
Harvesters	hour	14.68	0.1021	1.50	
HAND LABOR					
Implements	hour	9.06	0.1049	0.95	
UNALLOCATED LABOR	hour	14.67	0.2521	3.70	
DIESEL FUEL					
Tractors	gal	1.53	2.4667	3.78	
Harvesters	gal	1.53	1.3935	2.13	
REPAIR & MAINTENANCE					
Implements	acre	4.09	1.0000	4.09	
Tractors	acre	1.56	1.0000	1.56	
Harvesters	acre	4.16	1.0000	4.16	
INTEREST ON OP. CAP.	acre	7.30	1.0000	7.30	
TOTAL DIRECT EXPENSES				342.67	
FIXED EXPENSES					
Implements	acre	8.64	1.0000	8.64	
Tractors	acre	9.45	1.0000		
Harvesters	acre	15.93		15.93	
1101 000 0010	2010	10.00	1.0000		
TOTAL FIXED EXPENSES				34.02	
TOTAL LIVED EVERNOES				34.02	
TOTAL SPECIFIED EXPENSES				376.69	
TOTAL STECTLED ENTENSES				5,0.09	

Table 21.B Summary of estimated costs and returns per acre Wheat followed by soybeans, 70 bu yield goal All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Wheat	bu	5.75	70.0000	402.50	
TOTAL INCOME			•	402.50	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	
FERTILIZERS	acre	93.11	1.0000	93.11	
FUNGICIDES	acre	40.74	1.0000	40.74	
HERBICIDES	acre	46.56	1.0000	46.56	
INSECTICIDES	acre	3.78	1.0000	3.78	
SEED/PLANTS	acre	25.20	1.0000	25.20	
CUSTOM FERTILIZE	acre	22.86	1.0000	22.86	
HAULING	acre	18.20	1.0000	18.20	
CUSTOM LIME	acre	31.60	1.0000	31.60	
CROP CONSULTANT	acre	5.50	1.0000	5.50	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1049	0.95	
OPERATOR LABOR	hour	14.68	0.3151	4.62	
UNALLOCATED LABOR	hour	14.67	0.2521	3.70	
DIESEL FUEL	gal	1.53	3.8602	5.91	
REPAIR & MAINTENANCE	acre	9.81	1.0000	9.81	
INTEREST ON OP. CAP.	acre	7.30	1.0000	7.30	
TOTAL DIRECT EXPENSES			•	342.67	
RETURNS ABOVE DIRECT EX	PENSES			59.83	
TOTAL FIXED EXPENSES				34.02	
TOTAL SPECIFIED EXPENSE:	S		•	376.69	
RETURNS ABOVE TOTAL SPEC	CIFIED E	XPENSES		25.81	

Table 21.C Estimated resource use for field operations, per acre Wheat followed by soybeans, 70 bu yield goal All Areas, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								hoi	urs	
Soil Test	acre			0.33	Sep	0.3330				
Lime (Spread)	ton			0.33	Sep	0.6660				
Disk Harrow	32'	MFWD 225	0.061	1.00	Sep		0.06	0.06	0.06	0.04
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Sep		0.04	0.04	0.08	0.03
DAP	cwt				_	1.0000				
Potash (60% K20)	cwt					0.7500				
Field Cultivate Fld	32'	MFWD 225	0.046	1.00	Sep		0.04	0.04	0.04	0.03
Grain Drill	30'	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.12	0.05
Wheat Seed Private	lb					90.0000				
CruiserMaxx Vibranc	e oz					4.5000				
Wheat Consultant	acre			1.00	Oct	1.0000				
App by Air (5 gal)	appl			1.00	Nov	1.0000				
Axiom	OZ					10.0000				
App by Air (3 gal)	appl			1.00	Feb	1.0000				
Karate Z	OZ					1.5000				
Harmony Extra SG	OZ					0.7500				
Axial XL	ΟZ					16.4000				
App Fert by Air	cwt			1.00	Feb	1.5240				
Fert 41-0-0-4	cwt					1.5240				
App Fert by Air	cwt			1.00	Mar	1.5240				
Fert 41-0-0-4	cwt					1.5240				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Prosaro	OZ					8.0000				
Header Wheat/Sorghum	25' Rigid	265 hp	0.102	1.00	Jun		0.10	0.10	0.10	0.08
Haul Wheat	bu					70.0000				
TOTALS							0.31	0.31	0.42	0.25

Table 21.D Estimated costs for field operations, per acre Wheat followed by soybeans, 70 bu yield goal All Areas, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					(dollars-				
Soil Test	acre	3.33					0.11	3.44		3.44
Lime (Spread)	ton	31.60					1.05	32.65		32.65
Disk Harrow	32'		1.09	1.50	1.62		0.14	4.35	4.85	9.20
Spin Spreader	5 ton		0.75	0.58	1.49		0.09	2.91	2.40	5.31
DAP	cwt	20.99					0.70	21.69		21.69
Potash (60% K20)	cwt	16.58					0.55	17.13		17.13
Field Cultivate Fld	32'		0.83	0.85	1.23		0.10	3.01	4.14	7.15
Grain Drill	30'		1.11	2.07	2.23		0.16	5.57	5.76	11.33
Wheat Seed Private	lb	25.20					0.76	25.96		25.96
CruiserMaxx Vibrance	e oz	21.38					0.64	22.02		22.02
Wheat Consultant	acre	5.50					0.17	5.67		5.67
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Axiom	OZ	19.40					0.52	19.92		19.92
App by Air (3 gal)	appl	5.50					0.09	5.59		5.59
Karate Z	OZ	3.78					0.06	3.84		3.84
Harmony Extra SG	OZ	8.30					0.14	8.44		8.44
Axial XL	OZ	18.86					0.31	19.17		19.17
App Fert by Air	cwt	11.43					0.19	11.62		11.62
Fert 41-0-0-4	cwt	27.77					0.46	28.23		28.23
App Fert by Air	cwt	11.43					0.15	11.58		11.58
Fert 41-0-0-4	cwt	27.77					0.37	28.14		28.14
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Prosaro	OZ	19.36					0.19	19.55		19.55
Header Wheat/Sorghum	25' Rigid		2.13	4.81	2.70		0.03	9.67	16.87	26.54
Haul Wheat	bu	18.20					0.06	18.26		18.26
TOTALS		310.38	5.91	9.81	9.27	0.00	7.30	342.67	34.02	376.69

Table 21.E Estimated monthly income and expense flows per acre Wheat followed by soybeans, 70 bu yield goal All Areas, Mississippi, 2021

ITEM	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
						dol1	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	402.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	5.50	0.00	7.00	0.00	0.00
FERTILIZERS	0.00	0.00	37.57	0.00	0.00	0.00	0.00	27.77	27.77	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	21.38	0.00	0.00	0.00	0.00	0.00	19.36	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	19.40	0.00	0.00	27.16	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.78	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	25.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.43	11.43	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.20
CUSTOM LIME	0.00	0.00	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	4.34	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.70
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	2.67	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.13
REPAIR & MAINTENANCE	0.00	0.00	2.93	2.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.81
INTEREST ON OP. CAP.	0.00	0.00	2.74	1.73	0.71	0.00	0.00	1.25	0.52	0.26	0.00	0.09
TOTAL DIRECT EXPENSES	0.00	0.00	85.18	59.22	27.11	0.00	0.00	76.89	39.72	26.62	0.00	27.93
NET INCOME	0.00	0.00	-85.18	-59.22	-27.11	0.00	0.00	-76.89	-39.72	-26.62	0.00	374.57
NET INCOME TO DATE	0.00	0.00	-85.18	-144.40	-171.51	-171.51	-171.51	-248.40	-288.12	-314.74	-314.74	59.83

^{*} Lease costs are based on hourly usage costs.

Table 21.F Estimated returns for various price/yield combinations, per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100 ODUCT PRIC	105	110	115	120	125
Wheat			4.31	4.60	4.88		5.46	5.75	6.03		6.61	6.90	7.18
PERCENT	YIELD	UNIT -					d	ollars					
50	35.00	bu	-182 -216	-172 -206	-162 -196	-152 -186	-142 -176	-132 -166	-122 -156	-112 -146	-102 -136	-92 -126	-81 -115
60	42.00	bu	-154 -188	-142 -176	-130 -164	-118 -152	-105 -139	-93 -127	-81 -115	-69 -103	-57 -91	-45 -79	-33 -67
70	49.00	bu	-125 -159	-111 -145	-97 -131	-83 -117	-69 -103	-55 -89	-41 -75	-27 -61	-13 -47	0 -33	14 -19
80	56.00	bu	-97 -131	-81 -115	-65 -99	-49 -83	-33 -67	-17 -51	-0 -34	15 -18	31 -2	47 13	63 29
90	63.00	bu	-69 -103	-51 -85	-32 -66	-14 -48	3 -30	21 -12	39 5	57 23	75 41	93 59	111 77
100	70.00	bu	-40 -74	-20 -54	-0 -34	19 -14	39 5	59 25	79 45	100 66	120 86	140 106	160 126
110	77.00	bu	-12 -46	9 -24	31 -2	53 19	76 42	98 64	120 86	142 108	164 130	186 152	208 174
120	84.00	bu	15 -18	40 6	64 30	88 54	112 78	136 102	160 126	184 150	209 175	233 199	257 223
130	91.00	bu	44 10	70 36	96 62	122 88	148 114	175 141	201 167	227 193	253 219	279 245	305 271
140	98.00	bu	72 38	100 66	129 94	157 123	185 151	213 179	241 207	269 235	298 264	326 292	354 320
150	105.00	bu	101 66	131 97	161 127	191 157	221 187	251 217	282 248	312 278	342 308	372 338	402 368

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 22.A Estimated costs per acre
Contour levee rice
Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY App by Air (5 gal)	appl	7.00	5.5000	38.50	
App by Air (3 gal) FERTILIZERS	appl	5.50	1.5000	8.25	
Amm Sulfate (21% N) DAP	cwt cwt	18.66 20.99	0.5000	9.33 10.50	
Urea, Solid (46% N) NBPT	cwt	19.74 11.06	4.0000	78.96 8.30	
FUNGICIDES Flint Extra	OZ	8.88	4.7000	41.74	
Tilt 3.6 EC HERBICIDES	OZ	0.76	10.0000	7.60	
Glyphosate 3lbs a.e 2,4-D Amine 4	oz pt	0.13 2.25	80.0000 2.0000	10.40 4.50	
Command 3ME Sharpen	pt oz	18.17	1.0000	18.17 12.08	
Regiment	OZ	43.56	0.5000	21.78	
Facet L Permit	pt oz	14.57 21.99	2.6900 0.7500	39.19 16.49	
Clincher SF INSECTICIDES	OZ	2.26	7.5000	16.95	
Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Seed Conv. Rice Seed Trt/Insect	lb	0.32	75.0000 88.6000	24.00 25.69	
Rice Seed Tit/Insect Rice Seed Cv(Levees) ADJUVANTS	lb	0.32	13.6000	4.35	
Class Act NG	pt	1.75	0.5000	0.88	
MSO Dyne-A-Pak	pt pt	2.40 5.16	1.5000 0.5000	3.60 2.58	
Crop Oil Conc.(Pet.) Surfactant	pt pt	2.86 3.30	0.4000 0.1000	1.14 0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	160.0000	56.00	
DRYING Dry Rice	bu	0.40	160.0000	64.00	
SURVĒY & MARK LEVEES		4.50	1.0000	4.50	
Survey & Mark Levees CROP CONSULTANT					
Rice Consultant SOIL TEST	acre	8.00	1.0000	8.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters	hour hour	14.68 14.68	0.5475 0.2030	8.03 2.98	
IRRIGATE LABOR Special Labor	hour	9.06	3.5250	31.96	
HAND LABOR Special Labor	hour	9.06	0.2500	2.27	
Implements RICE MGT. LABOR	hour	9.06	0.0785	0.71	
Special Labor UNALLOCATED LABOR	hour hour	9.06 14.68	1.5000 0.5633	13.59 8.27	
DIESEL FUEL Tractors	gal	1.53	5.9886	9.16	
Harvesters Flood Irr.	gal	1.53 1.53	3.3975	5.20 41.14	
REPAIR & MAINTENANCE	,		26.8827		
Implements Tractors	acre acre	8.97 3.69	1.0000 1.0000	8.97 3.69	
Harvesters Flood Irr.	acre acre	8.36 14.31	1.0000 1.0000	8.36 14.31	
INTEREST ON OP. CAP.	acre	10.63	1.0000	10.63	
TOTAL DIRECT EXPENSES FIXED EXPENSES				755.20	
Implements	acre	18.64	1.0000	18.64	
Tractors Harvesters	acre acre	22.58 31.99	1.0000	22.58 31.99	
Flood Irr.	acre	42.08	1.0000	42.08	
TOTAL FIXED EXPENSES				115.29	
TOTAL SPECIFIED EXPENSES				870.49	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 22.B Summary of estimated costs and returns per acre Contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME				816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	46.75	1.0000	46.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	139.56	1.0000	139.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	54.04	1.0000	54.04	
ADJUVANTS	acre	8.53	1.0000	8.53	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000	64.00	
SURVEY & MARK LEVEES	acre	4.50	1.0000	4.50	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	3.5250	31.96	
OPERATOR LABOR	hour	14.68	0.7506	11.01	
RICE MGT. LABOR	hour	9.06	1.5000	13.59	
UNALLOCATED LABOR	hour	14.68	0.5633	8.27	
DIESEL FUEL	gal	1.53	36.2688	55.50	
REPAIR & MAINTENANCE	acre	35.33	1.0000	35.33	
INTEREST ON OP. CAP.	acre	10.63	1.0000	10.63	
TOTAL DIRECT EXPENSES			•	755.20	
RETURNS ABOVE DIRECT EXI	PENSES			60.80	
TOTAL FIXED EXPENSES				115.29	
TOTAL SPECIFIED EXPENSES	3		-	870.49	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-54.49	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year.

Table 22.C Estimated resource use for field operations, per acre Contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	МТН	INPUT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALI LABOR
								hoi	urs	
Soil Test	acre			0.33	Sep	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	ΟZ					48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr		0.07	0.07	0.15	0.07
Rice Seed Conv.	lb					75.0000				
Rice Seed Trt/Insect						75.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
Class Act NG	pt					0.5000				
MSO	pt			1 00	3	0.5000				
Seed Levees	11.			1.00	Apr	12 6000				
Rice Seed Cv(Levees)	lb					13.6000				
Rice Seed Trt/Insect				1 00	M	13.6000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	мау	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt			1 00	Morr	0.5000				
App by Air (5 gal)	appl oz			1.00	мау	1.0000				
Regiment Dyne-A-Pak	pt					0.5000				
App Fert by Air	cwt			1.00	Mass	2.5000				
Urea, Solid (46% N)	cwt			1.00	riay	2.5000				
NBPT	pt					0.7500				
Rice Management	рc			1.00	May	0.7500				
RICE MGT. LABOR	hour			1.00	riay				0.30	
App by Air (5 gal)	appl			1.00	Mav	1.0000			0.00	
Facet L	pt			1.00	1101	2.6900				
Permit	OZ					0.7500				
Crop Oil Conc.(Pet.)						0.4000				
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management				1.00	Jun					
RICE MGT. LABOR	hour								0.50	
App Fert by Air	cwt			1.00	Jun	1.5000				
Urea, Solid (46% N)	cwt					1.5000				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.50	
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Flint Extra	OZ					4.7000				
Tilt 3.6 EC	OZ					10.0000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	ΟZ					3.0000				
Rice Management				1.00	Aug					
RICE MGT. LABOR	hour								0.20	
Header - Draper (CL)	25' Rigid	325 hp	0.203	1.00	Aug		0.20	0.20	0.20	0.18
Grain Cart Rice	700 bu	MFWD 225	0.055		Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	160.0000				
Dry Rice	bu			1.00	Aug	160.0000	_			
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	
moma i c							0.75		·	
TOTALS							0.75	0.75	6.10	0.56

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year.

Table 22.D Estimated costs for field operations, per acre Contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.01	3.34		3.34
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Conv.	lb	24.00					0.48	24.48		24.48
Rice Seed Trt/Insect	lbseed	21.75					0.44	22.19		22.19
Roller/Cultipacker	30 '		0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
Class Act NG	pt	0.88					0.02	0.90		0.90
MSO	pt	1.20					0.02	1.22		1.22
Seed Levees	1.									
Rice Seed Cv(Levees)	lb	4.35					0.09	4.44		4.44
Rice Seed Trt/Insect		3.94					0.08	4.02		4.02
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Regiment (3 gai)	OZ	21.78					0.36	22.14		22.14
Dyne-A-Pak	pt	2.58					0.04	2.62		2.62
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT		8.30					0.02	8.44		8.44
	pt	0.30					0.14	0.44		0.44
Rice Management RICE MGT. LABOR	hour				2.72		0.05	2.77		2.77
		7.00			2.12		0.03	7.12		7.12
App by Air (5 gal) Facet L	appl	39.19					0.12	39.84		39.84
Permit	pt						0.83	16.76		16.76
	oz pt	16.49 1.14					0.02	1.16		1.16
Crop Oil Conc. (Pet.)	_	3.50					0.02	3.55		3.55
App by Air (5 gal) Clincher SF	appl oz	16.95					0.03	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management RICE MGT. LABOR	hour				4.53		0.06	4 50		4 50
	hour	11.25			4.33		0.06	4.59 11.40		4.59 11.40
App Fert by Air	cwt	29.61					0.13	30.00		30.00
Urea, Solid (46% N)	cwt	29.01					0.39	30.00		30.00
Rice Management	hour				4.53		0 05	4 50		4.58
RICE MGT. LABOR	hour	7 00			4.33		0.05			
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42			42.16
Tilt 3.6 EC	OZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (CL)	25' Rigid		5.20		5.66		0.15	22.23	36.30	58.53
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage	_									
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	56.00					0.37			56.37
Dry Rice	bu	64.00					0.43	64.43		64.43
Disk Heavy	28'		2.68	3.45	4.22		0.03			21.90
Flood Irr.	acre	4.50	42.82	15.12	33.79		1.47	97.70	46.79	144.49
TOTALS		585.93	55.50	35.33	67.81	0.00	10.63	755.20	115.29	870.49

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 22.E Estimated monthly income and expense flows per acre Contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	54.04	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	3.72	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	16.10	9.52	11.33	11.33	11.63	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.81	11.22	11.22	11.22	6.01	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.10	8.20	2.29	2.29	11.74	3.45
INTEREST ON OP. CAP.	0.33	0.00	0.00	0.00	0.48	0.00	2.68	3.94	1.18	0.98	1.00	0.04
TOTAL DIRECT EXPENSES	8.61	0.00	0.00	0.00	18.22	0.00	136.72	239.79	89.73	98.03	150.38	13.72
NET INCOME	-8.61	0.00	0.00	0.00	-18.22	0.00	-136.72	-239.79	-89.73	-98.03	665.62	-13.72
NET INCOME TO DATE	-8.61	-8.61	-8.61	-8.61	-26.83	-26.83	-163.55	-403.34	-493.07	-591.10	74.52	60.80

Fertilization decisions should be based on soil tests.

^{*} Lease costs are based on hourly usage costs

Table 22.F Estimated returns for various price/yield combinations, per acre Contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35			6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-388 -504	-368 -483	-348 -463	-327 -442	-307 -422	-286 -402	-266 -381	-246 -361	-225 -340	-205 -320	-184 -300
60	96.00	bu	-339 -454	-315 -430	-290 -406	-266 -381	-241 -357	-217 -332	-192 -308	-168 -283	-143 -259	-119 -234	-94 -210
70	112.00	bu	-290 -405	-262 -377	-233 -348	-204 -320	-176 -291	-147 -263	-119 -234	-90 -205	-62 -177	-33 -148	-4 -120
80	128.00	bu	-241 -356	-208 -324	-176 -291	-143 -258	-110 -226	-78 -193	-45 -160	-12 -128	19 - 95	52 -62	84 -30
90	144.00	bu	-192 -307	-155 -270	-118 -234	-82 -197	-45 -160	-8 -124	28 -87	64 -50	101 -13	138 22	174 59
100	160.00	bu	-143 -258	-102 -217	-61 -176	-20 -136	20 -95	60 -54	101 -13	142 27	183 67	224 108	264 149
110	176.00	bu	-94 -209	-49 -164	-4 -119	40 -74	85 -29	130 15	175 59	220 104	264 149	309 194	354 239
120	192.00	bu	-44 -160	4 -111	52 -62	101 -13	150 35	199 84	248 133	297 182	346 231	395 280	444 329
130	208.00	bu	4 -111	57 -58	110 -5	163 47	216 101	269 154	322 207	375 260	428 313	481 366	534 419
140	224.00	bu	53 -62	110 -4	167 52	224 109	281 166	338 223	396 280	453 337	510 394	567 452	624 509
150	240.00	bu	102 -12	163 48	224 109	286 170	347 231	408 293	469 354	530 415	592 476	653 537	714 599

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 23.A Estimated costs per acre Straight levee rice Flood irrigated, 27 ac-in, Mississippi, 2021

riood iiiiga				2021	
ITEM	UNIT	PRICE	QUANTITY		YOUR FARM
DIRECT EXPENSES CUSTOM SPRAY		dollars		dollars	
App by Air (5 gal) App by Air (3 gal) FERTILIZERS	appl appl	7.00 5.50	5.5000 1.5000	38.50 8.25	
Amm Sulfate (21% N) DAP Urea, Solid (46% N) NBPT	cwt cwt cwt pt	18.66 20.99 19.74 11.06	0.5000 0.5000 4.0000 0.7500	9.33 10.50 78.96 8.30	
FUNGICIDES Flint Extra Tilt 3.6 EC HERBICIDES	OZ OZ	8.88 0.76	4.7000 10.0000	41.74 7.60	
Glyphosate 3lbs a.e 2,4-D Amine 4 Command 3ME Sharpen Regiment Facet L Permit Clincher SF INSECTICIDES	oz pt pt oz oz pt oz oz	0.13 2.25 18.17 6.04 43.56 14.57 21.99 2.26	80.0000 2.0000 1.0000 2.0000 0.5000 2.6900 0.7500 7.5000	10.40 4.50 18.17 12.08 21.78 39.19 16.49 16.95	
Warrior ZT SEED/PLANTS	ΟZ	2.43	3.0000	7.29	
Rice Seed Conv. Rice Seed Trt/Insect Rice Seed Cv(Levees) ADJUVANTS		0.32 0.29 0.32	75.0000 88.6000 13.6000	24.00 25.69 4.35	
MSO Class Act NG Dyne-A-Pak Crop Oil Conc.(Pet.) Surfactant	pt pt pt pt pt	2.40 1.75 5.16 2.86 3.30	1.5000 0.5000 0.5000 0.4000 0.1000	3.60 0.88 2.58 1.14 0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	160.0000	56.00	
DRYING Dry Rice	bu	0.40	160.0000	64.00	
SURVĒY & MARK LEVEES Survey & Mark Levees	acre	4.50	0.5000	2.25	
CROP COÑSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors Harvesters	hour hour	14.68 14.68	0.4999 0.1760	7.33 2.58	
IRRIGATE LABOR Special Labor	hour	9.06	2.3750	21.52	
HAND LABOR Special Labor Implements RICE MGT. LABOR	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
Special Labor UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
Tractors Harvesters Flood Irr. REPAIR & MAINTENANCE	gal gal gal	1.53 1.53 1.53	5.5719 2.9444 21.9949	8.51 4.51 33.64	
Implements Tractors Harvesters Flood Irr. INTEREST ON OP. CAP.	acre acre acre acre	8.50 3.45 7.24 14.31 10.32	1.0000 1.0000 1.0000 1.0000 1.0000	8.50 3.45 7.24 14.31 10.32	
TOTAL DIRECT EXPENSES FIXED EXPENSES Implements Tractors Harvesters Flood Irr.	acre acre acre acre	17.65 21.12 27.72 64.81	1.0000 1.0000 1.0000 1.0000	722.83 17.65 21.12 27.72 64.81	
TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES				854.13	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 23.B Summary of estimated costs and returns per acre Straight levee rice Flood irrigated, 27 ac-in, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FAR
		dollars		dollars	
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME				816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	46.75	1.0000	46.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	139.56	1.0000	139.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	54.04	1.0000	54.04	
ADJUVANTS	acre	8.53	1.0000		
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000	64.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	2.3750	21.52	
OPERATOR LABOR	hour	14.68	0.6759	9.91	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	30.5114	46.66	
REPAIR & MAINTENANCE	acre	33.50	1.0000	33.50	
INTEREST ON OP. CAP.	acre	10.32	1.0000	10.32	
TOTAL DIRECT EXPENSES			•	722.83	
RETURNS ABOVE DIRECT EXI	PENSES			93.17	
TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES	S		•	854.13	
RETURNS ABOVE TOTAL SPEC		EXPENSES		-38.13	

Table 23.C Estimated resource use for field operations, per acre Straight levee rice Flood irrigated, 27 ac-in, Mississippi, 2021

App by Air (5 gal) Glyphosate 3lbb a.e oz 2,4-0 Amine 4 (24) oz 2,4-0 Amine 4 (24) MFWD 225 (0.078) (0.078) (0.0775) 0.07 (0.07 0.07 0.015 0.007 0.	OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
Pieblic Cultivate Fild 32									hoi	urs	
Harrow - Folding	Soil Test	acre			0.33	Oct	0.3330				
App Apr C S gal C S gal C S Gal C S C C C C C C C C	Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Clyphosate 31bs a.e pt 22,0000 2,4-D Amine 4 pt 24' MFWD 225 0.078 1.00 Apr 75,0000	-	40'	MFWD 225	0.038				0.03	0.03	0.03	0.03
2.4° Designed Pt Carlo Normal Normal Carlo Normal					1.00	Feb					
Seal Defility 14											
Rice Seed Conv. 1b Rice Seed Trt/Insect 75,0000 0.04 0.05 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.04		_	MEND OOF	0 070	1 00	3	2.0000	0 07	0 07	0 1 5	0 07
Rice Seed Trt / Insect Seed Roller / Cuttipackers 30' MFWD 225 0.049 1.00 Apr 0.000 0.04			MFWD 225	0.078	1.00	Apr	75 0000	0.07	0.07	0.15	0.07
Roller/Cultipacker 30' MFWD 225 0.049 1.00 Apr 1.0000 Apr 1.000											
App by Air (5 gal) appl of Command 3ME pt sharpen of Command 3ME pt sharpen of Command 3ME pt sharpen of Class Act NS pt sharpen sharpen of Class Act NS pt sharpen s			MFWD 225	0.049	1.00	Apr	73.0000	0.04	0.04	0.04	0.04
Command SME	-	_	111.112 220	0.013		_	1.0000	0.01	0.01	0.01	0.01
Command 3ME		= =			1.00	1101					
MSO											
Calsa Act NG		-									
Seed Levees Rice Seed Cr(Levees) 1b Rice Seed Cr(Levees) 1b Rice Seed Trt/Insect 1bseed 13,6000 Rice Consultant acre 1.00 May 1.0000 App Fert by Air cvt 1.00 May 2.5000 App Fert by Air cvt 1.00 May 2.5000 App Fert by Air cvt 1.00 May 2.5000 App Fert by Air cvt 1.00 May 1.0000 App Fert by Air cvt 2.5000 App Fert by Air cvt	MSO	pt					0.5000				
Rice Seed Cv(Levees) B Rice Seed Trr/Thacet Biseed	Class Act NG	pt					0.5000				
Rice Seed Trt/Insect Libsed Seed See	Seed Levees				1.00	Apr					
Rice Consultant	Rice Seed Cv(Levees)	lb					13.6000				
App Fert by Air Cwt		lbseed									
Amm Sulfate (21% N)						_					
DAP					1.00	May					
App by Air (5 gal)											
Regiment					1 00						
Dyne-A-Pak					1.00	мау					
App Fert by Air Cwt 1.00 May 2.5000	=										
Unea, Solid (46% N)	=	_			1 00	Mass					
No					1.00	пау					
Rice Management RICE MGT. LABOR App by Air (5 gal) Appl Facet L Pt Permit Oz Crop Oil Conc. (Pet.) App by Air (5 gal) Appl Appl Appl Appl Appl Appl Appl Ap											
RICE MGT. LABOR hour		F			1.00	May					
Facet L pt	-	hour				-				0.10	
Permit Oz Ocrop Oil Conc. (Pet.) pt 0.4000 App by Air (5 gal) appl 0.50 Jun 0.5000 Clincher SF Oz 7.5000 MSO pt 1.0000 Rice Management 1.00 Jun 1.5000 App by Air (5 gal) Appl 0.20 Jun 0.5000 App by Air (5 gal) Appl 0.50 Jun 0.5000 App by Air (5 gal) Appl 0.20 Jun 0.5000 App by Air (5 gal) Appl 0.20 Jun 0.5000 App by Air (5 gal) Appl 0.20 Jun 0.5000 App by Air (5 gal) Appl 0.000 App by Air (3 gal) Appl 0.000 App by Air (3 gal) Appl 0.50 Jun 0.5000 App by Air (3 gal) Appl 0.5000 App by Air (5 gal) Appl 0.5000 App by Air (5 gal) Appl 0.5000 App by Air (5 gal) Appl 0.5000 App by Air (App by Air (5 gal)	appl			1.00	May	1.0000				
Crop Oil Conc.(Pet.) pt	Facet L	pt					2.6900				
App by Air (5 gal) appl 0.50 Jun 0.5000 Clincher SF 02 7.5000 MSO pt 1.0000 T.5000 T.5000 NSO pt 1.0000 T.5000 T.5000 NSO pt 1.0000 T.5000 T.5000 NSO Pt T.5000 NSO Pt T.5000 NSO PT T.5000 NSO PT T.5000 NSO NSO PT T.5000 NSO		OZ									
Clincher SF		_									
MSO		= =			0.50	Jun					
RICE MGT. LABOR hour RICE MGT. LABOR hour RICE MGT. LABOR hour App by Air (5 gal) appl											
RICE MGT. LABOR hour App Fert by Air cwt 1.00 Jun 1.5000 Urea, Solid (46% N) cwt RICE MANAgement RICE MGT. LABOR hour App by Air (5 gal) appl 1.00 Jul 1.0000 Flint Extra oz 4.7000 Surfactant pt 0.1000 App by Air (3 gal) appl 1.50 Jul 1.5000 App by Air (3 gal) appl 1.50 Jul 1.5000 App by Air (3 gal) appl 2.50 Jul 1.5000 App by Air (3 gal) appl 3.50 Jul 1.5000 Warrior ZT oz 02 RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.00 Handling & Storage HAND LABOR hour Haul Rice bu 1.00 Aug 160.0000 Dry Rice Bu 1.000 Aug 1.0000 Dry Rice Bu 1.0000		рt			1 00	Tun	1.0000				
App Fert by Air	3	hour			1.00	Juli				0.20	
Urea, Solid (46% N) Cwt					1 00	Jun	1 5000			0.20	
Rice Management RICE MGT. LABOR hour App by Air (5 gal) appl 1.00 Jul 1.0000 Flint Extra oz 4.7000 Surfactant pt 0.1000 App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 0.1000 RICE MGT. LABOR hour RICE MGT. LABOR hour RHeader - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug Handling & Storage HAND LABOR hour HAND LABOR hour But the storage hour HAND LABOR hour But the storage have bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 0.13 0.15 0.15 0.15 0.13 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15					1.00	Oun					
RICE MGT. LABOR hour App by Air (5 gal) appl appl 1.00 Jul 1.0000 Flint Extra oz 4.7000 Tilt 3.6 EC oz 10.0000 Surfactant pt 0.1000 App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 RICE MGT. LABOR hour RICE MGT. LABOR hour Reader - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.00 Handling & Storage HAND LABOR hour Dry Rice bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.15 0.13 Flood Irr. Jan 1.0000 0.07 0.07 2.45					1.00	Jul					
App by Air (5 gal) appl 1.00 Jul 1.0000 Flint Extra oz 4.7000 Tilt 3.6 EC oz 10.0000 Surfactant pt 0.1000 App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 Rice Management 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 Handling & Storage 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. acre		hour								0.20	
Tilt 3.6 EC oz pt 0.10000 Surfactant pt 0.1000 App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 Rice Management 1.00 Aug RICE MGT. LABOR hour 0.20 Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 0.00 Handling & Storage 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. acre June 1.000 Aug 1.0000 0.07 0.07 2.45	App by Air (5 gal)				1.00	Jul	1.0000				
Surfactant pt 0.1000 App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 Rice Management 1.00 Aug 3.0000 Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.00 Handling & Storage 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. acre Jul 1.000 0.07 0.07 2.45	Flint Extra	OZ					4.7000				
App by Air (3 gal) appl 20 20 3.0000 Rice Management 1.00 Aug 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.00 Handling & Storage 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. 20 20 3.0000		ΟZ					10.0000				
Warrior ZT oz 3.0000 Rice Management RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 0.15 0.15 0.00 Aug 0.01 0.01 0.01 0.01 0.00 Handling & Storage HAND LABOR hour 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15		pt									
Rice Management RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug HAND LABOR hour HAND LABOR hour Bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. acre 1.00 Aug 1.000 Disk Heavy Jan 1.0000 0.07 0.07 2.45					1.50	Jul					
RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.00 Handling & Storage 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. acre Jan 1.0000 0.07 0.07 2.45		OZ			4 00	_	3.0000				
Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.15 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.00 Handling & Storage 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.15 Flood Irr. acre Jan 1.0000 0.07 0.07 2.45	=	ha.			1.00	Aug				0 00	
Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.00 Handling & Storage 1.00 Aug 1.00 Aug 160.0000 0.25 Haul Rice bu 1.00 Aug 160.0000 0.00 Dry Rice bu 1.00 Aug 160.0000 0.01 0.15			20E hm	0 176	1 00	7~		0 17	0 17		0 15
Handling & Storage HAND LABOR Haul Rice bu 1.00 Aug 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep Jan 1.0000 0.07 0.07 2.45	-	_	_			_					
HAND LABOR hour 0.25 Haul Rice bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.15 Flood Irr. acre Jan 1.0000 0.07 0.07 2.45		, 00 Du	TIL WID ZZJ	0.000		_		0.01	0.01	0 • U ±	0.00
Haul Rice bu 1.00 Aug 160.0000 Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.15 Flood Irr. acre Jan 1.0000 0.07 0.07 2.45	=	hour								0.25	
Dry Rice bu 1.00 Aug 160.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. acre Jan 1.0000 0.07 0.07 2.45					1.00	Aua	160.0000				
Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.13 Flood Irr. Jan 1.0000 0.07 0.07 2.45						_					
	Disk Heavy	28'	MFWD 225	0.075		Sep		0.15	0.15	0.15	0.13
TOTALS 0.67 0.67 4.07 0.53	Flood Irr.	acre				Jan	1.0000	0.07	0.07	2.45	
TOTALS 0.67 0.67 4.07 0.53											
	TOTALS							0.67	0.67	4.07	0.53

Table 23.D Estimated costs for field operations, per acre Straight levee rice Flood irrigated, 27 ac-in, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Conv.	lb	24.00					0.48	24.48		24.48
Rice Seed Trt/Insect	lbseed	21.75					0.44	22.19		22.19
Roller/Cultipacker	30'		0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees										
Rice Seed Cv(Levees)	lb	4.35					0.09	4.44		4.44
Rice Seed Trt/Insect	lbseed	3.94					0.08	4.02		4.02
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Regiment	OZ	21.78					0.36	22.14		22.14
Dyne-A-Pak	pt	2.58					0.04	2.62		2.62
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
Rice Management	,				0.01					
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Facet L	pt	39.19					0.65	39.84		39.84
Permit	OZ	16.49					0.27	16.76		16.76
Crop Oil Conc. (Pet.)	_	1.14					0.02	1.16		1.16
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management	1				1 01		0 00	1 00		1 00
RICE MGT. LABOR	hour	11 05			1.81		0.02	1.83		1.83
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management	la a				1 01		0 00	1 02		1 00
RICE MGT. LABOR	hour	7 00			1.81		0.02	1.83		1.83
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	OZ	7.60 0.33					0.08	7.68		7.68
Surfactant	pt						0 00	0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	ΟZ	7.29					0.07	7.36		7.36
Rice Management	hour				1.81		0 01	1.82		1 00
RICE MGT. LABOR Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.01	19.27	31.45	1.82 50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31		0.13	0.71	0.71	1.42
Handling & Storage	700 Du		0.13	0.21	0.51			0.71	0.71	1.72
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	56.00			۷ • ۷ ۱		0.02	56.37		56.37
Dry Rice	bu 28'	64.00	2 60	3 1 E	4.22		0.43	64.43	11 50	64.43 21.90
Disk Heavy Flood Irr.		2.25	2.68 34.67	3.45 14.79	22.65		0.03 1.16	10.38 75.52		143.17
11000 III.	acre	2.23								143.17
TOTALS		583.68	46.66	33.50	48.67	0.00	10.32	722.83	131.30	854.13
-			2.00							

Table 23.E Estimated monthly income and expense flows per acre Straight levee rice Flood irrigated, 27 ac-in, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	54.04	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	3.72	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	12.07	5.44	6.34	6.34	10.58	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.45	8.72	8.72	8.72	5.03	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.25	8.09	2.18	2.18	10.09	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	2.56	3.83	1.08	0.90	0.98	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	130.11	232.99	82.03	90.35	146.68	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-130.11	-232.99	-82.03	-90.35	669.32	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-160.40	-393.39	-475.42	-565.77	103.55	93.17

^{*} Lease costs are based on hourly usage costs

Table 23.F Estimated returns for various price/yield combinations, per acre Straight levee rice Flood irrigated, 27 ac-in, Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90 	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35			6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-356 -487	-336 -467	-315 -446	-295 -426	-274 -406	-254 -385	-234 -365	-213 -344	-193 -324	-172 -304	-152 -283
60	96.00	bu	-307 -438	-282 -414	-258 -389	-233 -365	-209 -340	-184 -316	-160 -291	-135 -267	-111 -242	-86 -218	-62 -193
70	112.00	bu	-258 -389	-229 -360	-201 -332	-172 -303	-143 -275	-115 -246	-86 -218	-58 -189	-29 -161	-1 -132	27 -103
80	128.00	bu	-209 -340	-176 -307	-143 -275	-111 -242	-78 -209	-45 -177	-13 -144	19 -111	52 - 79	84 -46	117 -13
90	144.00	bu	-159 -291	-123 -254	-86 -217	-49 -181	-13 -144	23 -107	60 -70	97 -34	133 2	170 39	207 75
100	160.00	bu	-110 -242	-70 -201	-29 -160	11 -119	52 -78	93 -38	133 2	174 43	215 84	256 125	297 165
110	176.00	bu	-61 -193	-16 -148	28 -103	72 -58	117 -13	162 31	207 76	252 121	297 166	342 210	387 255
120	192.00	bu	-12 -143	36 -94	85 -45	134 2	183 51	232 100	281 149	330 198	379 247	428 296	477 345
130	208.00	bu	36 -94	89 - 41	142 11	195 64	248 117	301 170	354 223	407 276	460 329	513 382	566 435
140	224.00	bu	85 -45	142 11	199 68	257 125	314 182	371 239	428 297	485 354	542 411	599 468	656 525
150	240.00	bu	134 3	195 64	257 125	318 187	379 248	440 309	501 370	563 431	624 493	685 554	746 615

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 24.A Estimated costs per acre Straight levee rice Multi inlet flood irrigated, 23 ac-in., Mississippi, 2021

Multi inlet	ilood	irrigated,	23 ac-in.,	Mississip	pı, 2021
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY App by Air (5 gal)	appl	7.00	5.5000	38.50	
App by Air (3 gal)	appl	5.50	1.5000	8.25	
FERTILIZERS Amm Sulfate (21% N)	cwt	18.66	0.5000	9.33	
DAP	cwt	20.99	0.5000	10.50	
Urea, Solid (46% N) NBPT	cwt pt	19.74 11.06	4.0000 0.7500	78.96 8.30	
FUNGICIDES	РC				
Flint Extra Tilt 3.6 EC HERBICIDES	OZ OZ	8.88 0.76	4.7000	41.74 7.60	
Glyphosate 31bs a.e	ΟZ	0.13	80.0000	10.40	
2,4-D Amine 4 Command 3ME	pt pt	2.25 18.17	2.0000 1.0000	4.50 18.17	
Sharpen	ΟZ	6.04	2.0000	12.08	
Regiment	ΟZ	43.56	0.5000	21.78	
Facet L Permit	pt oz	14.57 21.99	2.6900 0.7500	39.19 16.49	
Clincher SF	OZ	2.26	7.5000	16.95	
INSECTICIDES		2 42	2 0000	7 20	
Warrior ZT IRRIGATION SUPPLIES	ΟZ	2.43	3.0000	7.29	
Roll-Out Pipe	ft	0.24	33.0000	7.92	
SEED/PLANTS Rice Seed Conv.	lb	0.32	75.0000	24.00	
Rice Seed Trt/Insect		d 0.29	88.6000	25.69	
Rice Seed Cv(Levees)	lb	0.32	13.6000	4.35	
ADJUVANTS Class Act NG	pt	1.75	0.5000	0.88	
MSO	рt	2.40	1.5000	3.60	
Dyne-A-Pak Crop Oil Conc.(Pet.)	pt pt	5.16 2.86	0.5000 0.5000	2.58 1.43	
Surfactant	pt	3.30	0.1000	0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	160.0000	56.00	
DRYING Dry Rice	bu	0.40	160.0000	64.00	
SURVEY & MARK LEVEES Survey & Mark Levees	acre	4.50	0.5000	2.25	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.5281	7.74	
Harvesters IRRIGATE LABOR	hour	14.68	0.1760	2.58	
Special Labor	hour	9.06	1.1250	10.18	
Implements HAND LABOR	hour	9.06	0.0375	0.34	
Special Labor	hour	9.06	0.2500		
Implements RICE MGT. LABOR	hour	9.06	0.0785	0.71	
Special Labor UNALLOCATED LABOR	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
DIESEL FUEL Tractors	~ 1	1.53	5.8180	8.89	
Harvesters	gal gal	1.53	2.9444		
Flood Irr.	gal	1.53	18.7364		
REPAIR & MAINTENANCE Implements	acre	8.58	1.0000	8.58	
Tractors	acre	3.59	1.0000	3.59	
Harvesters	acre	7.24	1.0000		
Flood Irr. INTEREST ON OP. CAP.	acre acre	13.96 10.24	1.0000	13.96 10.24	
TOTAL DIRECT EXPENSES				715.65	
FIXED EXPENSES Implements	acre	18.29	1.0000	18.29	
Tractors	acre	01 00			
Harvesters	acre	27.72	1.0000	27.72	
Flood Irr.	acre	64.48	1.0000	64.48	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES				848.12	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 24.B Summary of estimated costs and returns per acre Straight levee rice Multi inlet flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME				816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	46.75	1.0000	46.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	139.56	1.0000	139.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	54.04	1.0000	54.04	
ADJUVANTS	acre	8.82	1.0000	8.82	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000	64.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.1625	10.52	
OPERATOR LABOR	hour	14.68	0.7041	10.32	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	27.4990	42.07	
REPAIR & MAINTENANCE		33.37	1.0000	33.37	
INTEREST ON OP. CAP.	acre	10.24	1.0000	10.24	
TOTAL DIRECT EXPENSES				715.65	
RETURNS ABOVE DIRECT EXE	PENSES			100.35	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES	S			848.12	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		-32.12	

Table 24.C Estimated resource use for field operations, per acre Straight levee rice Multi inlet flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE		TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					48.0000				
2,4-D Amine 4	pt	MENT OOF	0 070	1 00	3	2.0000	0 07	0 07	0 1 5	0 07
Grain Drill	24'	MFWD 225	0.078	1.00	Apr	75 0000	0.07	0.07	0.15	0.07
Rice Seed Conv. Rice Seed Trt/Insect	lb lbseed					75.0000 75.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr	73.0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl	111.112 220	0.013	1.00	_	1.0000	0.01	0.01	0.01	0.01
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
Class Act NG	pt					0.5000				
MSO	pt					0.5000				
Seed Levees				1.00	Apr					
Rice Seed Cv(Levees)	lb					13.6000				
Rice Seed Trt/Insect				1 00	14.	13.6000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	мау	1.0000				
Amm Sulfate (21% N) DAP	cwt cwt					0.5000				
App by Air (5 gal)	appl			1.00	Mav	1.0000				
Regiment (3 gd1)	OZ			1.00	ria y	0.5000				
Dyne-A-Pak	pt					0.5000				
App Fert by Air	cwt			1.00	May	2.5000				
Urea, Solid (46% N)	cwt					2.5000				
NBPT	pt					0.7500				
Rice Management				1.00	Мау					
RICE MGT. LABOR	hour								0.10	
App by Air (5 gal)	appl			1.00	Мау	1.0000				
Facet L	pt					2.6900				
Permit	OZ					0.7500				
Crop Oil Conc.(Pet.) App by Air (5 gal)	pt appl			0.50	.Tiin	0.5000				
Clincher SF	OZ			0.50	Oun	7.5000				
MSO	pt					1.0000				
Rice Management	F			1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	1.5000				
Urea, Solid (46% N)	cwt					1.5000				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.20	
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Flint Extra	OZ					4.7000				
Tilt 3.6 EC	OZ					10.0000				
Surfactant	pt			1.50	T., 1	0.1000 1.5000				
App by Air (3 gal) Warrior ZT	appl oz			1.30	Jul	3.0000				
Rice Management	02			1.00	Διια	3.0000				
RICE MGT. LABOR	hour			1.00	1149				0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055		Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	160.0000				
Dry Rice	bu			1.00	Aug	160.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.10	0.10	1.26	
moma i o							0.70	0.70		0.50
TOTALS							0.70	0.70	2.89	0.53

Table 24.D Estimated costs for field operations, per acre Straight levee rice Multi inlet flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Conv.	lb	24.00					0.48	24.48		24.48
Rice Seed Trt/Insect	lbseed	21.75					0.44	22.19		22.19
Roller/Cultipacker	30'		0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
Class Act NG	pt	0.88					0.02	0.90		0.90
MSO	pt	1.20					0.02	1.22		1.22
Seed Levees										
Rice Seed Cv(Levees)	lb	4.35					0.09	4.44		4.44
Rice Seed Trt/Insect	lbseed	3.94					0.08	4.02		4.02
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Regiment	OZ	21.78					0.36	22.14		22.14
Dyne-A-Pak	pt	2.58					0.04	2.62		2.62
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
Rice Management	,				0.01					
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Facet L	pt	39.19					0.65	39.84		39.84
Permit	OZ	16.49					0.27	16.76		16.76
Crop Oil Conc. (Pet.)	_	1.43					0.02	1.45		1.45
App by Air (5 gal)	appl	3.50					0.05 0.23	3.55		3.55
Clincher SF	OZ	16.95						17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	hour cwt	11.25			1.01		0.02	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.13	30.00		30.00
Rice Management	CWC	23.01					0.55	30.00		30.00
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (5 gal)	appl	7.00			1.01		0.02	7.07		7.07
Flint Extra	OZ	41.74					0.42			42.16
Tilt 3.6 EC	OZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33					0.00	0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management	OZ	1.23					0.07	7.50		7.50
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31		0.13	0.71	0.71	1.42
Handling & Storage	700 20		0.13	0.21	0.01			0.71	0.71	1.12
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	56.00			١ . ٠ ١		0.02			56.37
Dry Rice	bu	64.00					0.43	64.43		64.43
Disk Heavy	28 '	04.00	2.68	3.45	4.22		0.43		11 52	21.90
Flood Irr.	acre	10.17	30.08	14.66	12.06		1.08	68.05		136.87
	-010									
TOTALS		591.89	42.07	33.37	38.08	0.00	10.24	715.65	132.47	848.12

Table 24.E Estimated monthly income and expense flows per acre Straight levee rice Multi inlet flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	54.04	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	4.01	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	9.90	2.72	3.62	3.62	10.32	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	9.50	7.48	7.48	7.48	5.11	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.31	8.01	2.10	2.10	10.14	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	2.66	3.76	1.02	0.86	0.97	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	135.07	229.17	77.93	86.27	146.54	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-135.07	-229.17	-77.93	-86.27	669.46	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-165.36	-394.53	-472.46	-558.73	110.73	100.35

^{*} Lease costs are based on hourly usage costs

Table 24.F Estimated returns for various price/yield combinations, per acre Straight levee rice Multi inlet flood irrigated, 23 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59	4.84	ODUCT PRI 5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-349	-328	-308	-288	-267	-247	-226	-206	-186	-165	-145
			-481	-461	-440	-420	-400	-379	-359	-338	-318	-298	-277
60	96.00	bu	-300	-275	-251	-226	-202	-177	-153	-128	-104	-79	-55
			-432	-408	-383	-359	-334	-310	-285	-261	-236	-212	-187
70	112.00	bu	-251	-222	-193	-165	-136	-108	- 79	-51	-22	6	34
			-383	-354	-326	-297	-269	-240	-212	-183	-155	-126	-97
80	128.00	bu	-201	-169	-136	-103	-71	-38	-6	26	59	91	124
			-334	-301	-269	-236	-203	-171	-138	-105	-73	-40	-7
90	144.00	bu	-152	-116	-79	-42	-5	30	67	104	140	177	214
			-285	-248	-211	-175	-138	-101	-64	-28	8	45	81
100	160.00	bu	-103	-62	-22	18	59	100	141	181	222	263	304
			-236	-195	-154	-113	-72	-32	8	49	90	131	171
110	176.00	bu	-54	-9	35	80	124	169	214	259	304	349	394
			-187	-142	-97	-52	-7	37	82	127	172	216	261
120	192.00	bu	- 5	43	92	141	190	239	288	337	386	435	484
			-137	-88	-39	9	57	106	155	204	253	302	351
130	208.00	bu	43	96	149	202	255	308	361	414	468	521	574
			-88	-35	17	70	123	176	229	282	335	388	441
140	224.00	bu	92	149	207	264	321	378	435	492	549	606	664
			-39	17	74	131	188	245	303	360	417	474	531
150	240.00	bu	141	203	264	325	386	447	509	570	631	692	753
			9	70	131	193	254	315	376	437	499	560	621

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 25.A Estimated costs per acre Straight levee rice - zero grade Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (3 gal) FERTILIZERS	appl appl	7.00 5.50	5.5000 1.5000	38.50 8.25	
Amm Sulfate (21% N) DAP Urea, Solid (46% N)	cwt cwt cwt	18.66 20.99 19.74	0.5000 0.5000 4.0000	9.33 10.50 78.96	
NBPT FUNGICIDES Flint Extra	pt oz	11.06 8.88	0.7500 4.7000	8.30 41.74	
Tilt 3.6 EC HERBICIDES	OZ	0.76	10.0000	7.60	
Glyphosate 3lbs a.e 2,4-D Amine 4 Command 3ME Sharpen Regiment Facet L Permit Clincher SF	oz pt pt oz oz pt oz oz	0.13 2.25 18.17 43.56 14.57 21.99 2.26	80.0000 2.0000 1.0000 2.0000 0.5000 2.6900 0.7500 7.5000	10.40 4.50 18.17 12.08 21.78 39.19 16.49 16.95	
INSECTICIDES Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Seed Conv. Rice Seed Trt/Insect ADJUVANTS	lb lbseed	0.32 0.29	75.0000 75.0000	24.00 21.75	
Class Act NG MSO Dyne-A-Pak Crop Oil Conc.(Pet.) Surfactant	pt pt pt pt pt	1.75 2.40 5.16 2.86 3.30	0.5000 1.5000 0.5000 0.5000 0.1000	0.88 3.60 2.58 1.43 0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	160.0000	56.00	
DRYING Dry Rice	bu	0.40	160.0000	64.00	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors Harvesters	hour hour	14.68 14.68	0.4228 0.1760	6.20 2.58	
IRRIGATE LABOR Special Labor	hour	9.06	1.0500	9.53	
HAND LABOR Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR Special Labor UNALLOCATED LABOR	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
DIESEL FUEL Tractors Harvesters Flood Irr. REPAIR & MAINTENANCE	gal gal gal	1.53 1.53 1.53	4.8970 2.9444 15.4779	7.48 4.51 23.68	
Implements Tractors Harvesters Flood Irr. INTEREST ON OP. CAP.	acre acre acre acre	8.40 3.07 7.24 11.80 9.67	1.0000 1.0000 1.0000 1.0000 1.0000	8.40 3.07 7.24 11.80 9.67	
TOTAL DIRECT EXPENSES FIXED EXPENSES				684.83	
Implements Tractors Harvesters Flood Irr.	acre acre acre acre	17.16 18.77 27.72 64.16	1.0000 1.0000 1.0000 1.0000	17.16 18.77 27.72 64.16	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES				812.64	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 25.B Summary of estimated costs and returns per acre Straight levee rice - zero grade Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME				816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	46.75	1.0000	46.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	139.56	1.0000	139.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	45.75	1.0000	45.75	
ADJUVANTS	acre	8.82	1.0000	8.82	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000		
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.0500	9.53	
OPERATOR LABOR	hour	14.68	0.5988	8.78	
RICE MGT. LABOR	hour		0.7000		
UNALLOCATED LABOR	hour		0.5389		
DIESEL FUEL	gal	1.53	23.3194	35.67	
REPAIR & MAINTENANCE	acre	30.51	1.0000	30.51	
INTEREST ON OP. CAP.	acre	9.67	1.0000	9.67	
TOTAL DIRECT EXPENSES				684.83	
RETURNS ABOVE DIRECT EXE	ENSES			131.17	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES	5			812.64	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		3.36	

Table 25.C Estimated resource use for field operations, per acre Straight levee rice - zero grade Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT		TIMES	Mmii	INPUT	TMDI EMENE	POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUN'I'	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct	0.0000	0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e						48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr		0.07	0.07	0.15	0.07
Rice Seed Conv.	lb				=	75.0000				
Rice Seed Trt/Insec	t lbseed					75.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
Class Act NG	pt					0.5000				
MSO	pt					0.5000				
Rice Consultant	acre			1.00	-	1.0000				
App Fert by Air	cwt			1.00	Мау	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
App by Air (5 gal)	appl			1.00	Мау	1.0000				
Regiment	OZ					0.5000				
Dyne-A-Pak	pt			1 00	M	0.5000				
App Fert by Air	cwt			1.00	мау	2.5000				
Urea, Solid (46% N) NBPT	cwt ~+					2.5000 0.7500				
Rice Management	pt			1.00	May	0.7300				
RICE MGT. LABOR	hour			1.00	нау				0.10	
App by Air (5 gal)	appl			1.00	May	1.0000			0.10	
Facet L	pt			1.00	ria y	2.6900				
Permit	OZ					0.7500				
Crop Oil Conc. (Pet.)						0.5000				
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management	<u>-</u>			1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	1.5000				
Urea, Solid (46% N)	cwt					1.5000				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.20	
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Flint Extra	OZ					4.7000				
Tilt 3.6 EC	OZ					10.0000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	OZ					3.0000				
Rice Management	_			1.00	Aug					
RICE MGT. LABOR	hour	005.1			_		0.45		0.20	
Header - Draper (SL)	25' Rigid	325 hp		1.00			0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055		_		0.01	0.01	0.01	0.00
Handling & Storage	h = -			1.00	Aug				0 05	
HAND LABOR	hour			1 00	7	1.60 0000			0.25	
Haul Rice	bu			1.00	_	160.0000				
Dry Rice	bu	MEMB 005	0 075	1.00	_	160.0000	0 15	0 1 5	0 1 5	0 10
Disk Heavy	28'	MFWD 225	0.075	2.00	_	1 0000	0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000			1.05	
TOTALS							0.59	0.59	2.67	0.53
							0.00	- •	,	3.33

Table 25.D Estimated costs for field operations, per acre Straight levee rice - zero grade Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00	0.03	0.07	1.00		0.19	7.19		7.19
Glyphosate 3lbs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'	1.00	1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Conv.	lb	24.00	1.55	2.54	2.50		0.48	24.48	7.12	24.48
Rice Seed Conv. Rice Seed Trt/Insect		21.75					0.44	22.19		22.19
	30'	21.75	0 00	0 53	1 20				2 42	5.29
Roller/Cultipacker		7 00	0.88	0.53	1.39		0.06	2.86	2.43	7.14
App by Air (5 gal)	appl	7.00					0.14	7.14		
Glyphosate 31bs a.e		4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	ΟZ	12.08					0.24	12.32		12.32
Class Act NG	pt	0.88					0.02	0.90		0.90
MSO	pt	1.20					0.02	1.22		1.22
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Regiment	ΟZ	21.78					0.36	22.14		22.14
Dyne-A-Pak	pt	2.58					0.04	2.62		2.62
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
Rice Management	-									
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Facet L	pt	39.19					0.65	39.84		39.84
Permit	OZ	16.49					0.27	16.76		16.76
Crop Oil Conc. (Pet.)		1.43					0.02	1.45		1.45
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.23	2.43		2.43
	рt	2.40					0.03	2.43		2.43
Rice Management	1				1 01		0 00	1 02		1 02
RICE MGT. LABOR	hour	11 05			1.81		0.02	1.83		1.83
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management								4 00		
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	ΟZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	ΟZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid	L	4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	56.00					0.37	56.37		56.37
Dry Rice	bu	64.00					0.43			64.43
Disk Heavy	28 '	04.00	2.68	3.45	4.22		0.43		11.52	21.90
Flood Irr.	acre		23.68	11.80	9.53		0.68	45.69		109.85
IIOOU III.	acre			11.00	J.JJ			43.09	04.10	
TOTALS		573.43	35.67	30.51	35.55	0.00			127.81	812.64

Table 25.E Estimated monthly income and expense flows per acre Straight levee rice - zero grade Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	45.75	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	4.01	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	7.01	3.18	4.08	4.08	9.30	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	7.26	6.23	6.23	6.23	4.70	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	4.31	7.46	1.55	1.55	9.93	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	2.16	3.74	1.00	0.84	0.96	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	109.98	227.81	76.57	84.91	144.89	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-109.98	-227.81	-76.57	-84.91	671.11	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-140.27	-368.08	-444.65	-529.56	141.55	131.17

^{*} Lease costs are based on hourly usage costs.

Table 25.F Estimated returns for various price/yield combinations, per acre Straight levee rice - zero grade Flood irrigated, 19 ac-in., Mississippi, 2021

		_						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			2 02	4 00	4 22			ODUCT PRIC			E 0.C	C 10	
RICE			3.82	4.08	4.33	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-318	-298	-277	-257	-236	-216	-196	-175	-155	-134	-114
			-446	-425	-405	-385	-364	-344	-323	-303	-283	-262	-242
60	96.00	bu	-269	-244	-220	-195	-171	-146	-122	-97	-73	-48	-24
			-397	-372	-348	-323	-299	-274	-250	-225	-201	-176	-152
70	112.00	bu	-220	-191	-163	-134	-105	-77	-48	-20	8	36	65
			-348	-319	-290	-262	-233	-205	-176	-148	-119	-90	-62
80	128.00	bu	-171	-138	-105	-73	-40	-7	24	57	90	122	155
			-298	-266	-233	-200	-168	-135	-103	-70	-37	-5	27
90	144.00	bu	-121	-85	-48	-11	24	61	98	135	171	208	245
			-249	-213	-176	-139	-102	-66	-29	7	44	80	117
100	160.00	bu	- 72	-32	8	49	90	131	171	212	253	294	335
			-200	-159	-119	-78	-37	3	44	84	125	166	207
110	176.00	bu	-23	21	66	110	155	200	245	290	335	380	425
			-151	-106	-61	-16	28	72	117	162	207	252	297
120	192.00	bu	25	74	123	172	221	270	319	368	417	466	515
			-102	-53	-4	44	93	142	191	240	289	338	387
130	208.00	bu	74	127	180	233	286	339	392	445	498	551	604
			-53	-0	52	105	158	211	264	318	371	424	477
140	224.00	bu	123	180	237	295	352	409	466	523	580	637	694
			-4	52	110	167	224	281	338	395	452	509	567
150	240.00	bu	172	233	295	356	417	478	539	601	662	723	784
			44	106	167	228	289	350	412	473	534	595	656

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 26.A Estimated costs per acre Conventional hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars			
DIRECT EXPENSES CUSTOM SPRAY				dollars	
App by Air (5 gal) App by Air (3 gal) FERTILIZERS	appl appl	7.00 5.50	4.5000	31.50 8.25	
Amm Sulfate (21% N) DAP	cwt cwt	18.66 20.99	0.5000	9.33 10.50	
Urea, Solid (46% N) NBPT HERBICIDES	cwt pt	19.74 11.06	3.3220	65.58 8.85	
Glyphosate 3lbs a.e 2,4-D Amine 4 Command 3ME	oz pt pt	0.13 2.25 18.17	80.0000 2.0000 1.0000	10.40 4.50 18.17	
Sharpen	ŌΖ	6.04	2.0000	12.08	
Regiment Facet L	oz pt	43.56 14.57	0.5000 2.6900	21.78 39.19	
Permit Clincher SF	OZ OZ	21.99 2.26	0.7500 7.5000	16.49 16.95	
INSECTICIDES					
Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Conv Hyb Trt Rice Seed CvH(Levee)	lb	6.19 1.93	23.0000 4.2500	142.37 8.20	
Rice Seed Trt/Insect ADJUVANTS	lbseed	0.29	4.2500	1.23	
MSO Class Act NG	pt pt	2.40 1.75	1.5000 0.5000	3.60 0.88	
Dyne-A-Pak Crop Oil Conc.(Pet.) CUSTOM FERTILIZE	pt	5.16 2.86	0.5000	2.58 1.14	
App Fert by Air	cwt	7.50	4.3220	32.42	
HAULING Haul Rice	bu	0.35	180.0000	63.00	
DRYING Dry Rice	bu	0.40	180.0000	72.00	
SURVEY & MARK LEVEES Survey & Mark Levees	acre	4.50	1.0000	4.50	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.5475	8.03	
Harvesters IRRIGATE LABOR	hour	14.68	0.1760	2.58	
Special Labor HAND LABOR	hour	9.06	3.5250	31.96	
Special Labor Implements RICE MGT. LABOR	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
Special Labor UNALLOCATED LABOR	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
DIESEL FUEL Tractors	gal	1.53	5.9886	9.16	
Harvesters Flood Irr.	gal gal	1.53 1.53	2.9444 26.8827	4.51 41.14	
REPAIR & MAINTENANCE Implements	acre	8.59	1.0000	8.59	
Tractors	acre	3.69	1.0000	3.69	
Harvesters Flood Irr.	acre acre	7.24 14.31	1.0000	7.24 14.31	
INTEREST ON OP. CAP.	acre	11.89	1.0000	11.89	
TOTAL DIRECT EXPENSES FIXED EXPENSES				784.44	
Implements	acre	18.06	1.0000	18.06	
Tractors Harvesters	acre acre	22.58 27.72	1.0000 1.0000	22.58 27.72	
Flood Irr.	acre	42.08	1.0000	42.08	
TOTAL FIXED EXPENSES				110.44	
TOTAL SPECIFIED EXPENSES				894.88	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 26.B Summary of estimated costs and returns per acre Conventional hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FA	ARM
		dollars		dollars		
INCOME		dollars		dollars		
Rice	bu	5.10	180.0000	918.00		
TOTAL INCOME				918.00		
DIRECT EXPENSES						
CUSTOM SPRAY	acre	39.75	1.0000	39.75		
FERTILIZERS	acre	94.26	1.0000	94.26		
HERBICIDES	acre	139.56	1.0000	139.56		
INSECTICIDES	acre	7.29	1.0000	7.29		
SEED/PLANTS	acre	151.80	1.0000	151.80		
ADJUVANTS	acre	8.20	1.0000	8.20		
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41		
HAULING	acre	63.00	1.0000	63.00		
DRYING	acre	72.00	1.0000	72.00		
SURVEY & MARK LEVEES	acre	4.50	1.0000	4.50		
CROP CONSULTANT	acre	8.00	1.0000	8.00		
SOIL TEST	acre	3.33	1.0000	3.33		
HAND LABOR	hour	9.06	0.3285	2.98		
IRRIGATE LABOR	hour	9.06	3.5250	31.96		
OPERATOR LABOR	hour	14.68	0.7235	10.61		
RICE MGT. LABOR	hour	9.06	0.7000	6.34		
UNALLOCATED LABOR	hour	14.69	0.5389	7.92		
DIESEL FUEL	gal	1.53	35.8158	54.81		
REPAIR & MAINTENANCE	acre	33.83	1.0000	33.83		
INTEREST ON OP. CAP.	acre	11.89	1.0000	11.89		
TOTAL DIRECT EXPENSES				784.44		
RETURNS ABOVE DIRECT EXE	ENSES			133.56		
TOTAL FIXED EXPENSES				110.44		
TOTAL SPECIFIED EXPENSES	3			894.88		
RETURNS ABOVE TOTAL SPEC		EXPENSES		23.12		

Table 26.C Estimated resource use for field operations, per acre Conventional hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ SOPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct	0.3330	0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl	MFWD 225	0.030	1.00	Feb	1.0000	0.05	0.03	0.03	0.03
Glyphosate 31bs a.e	OZ			1.00	LCD	48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr	2.0000	0.07	0.07	0.15	0.07
Rice Conv Hyb Trt	lb	111 WD 220	0.070	1.00	11PI	23.0000	0.07	0.07	0.10	0.07
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr	20.0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	-	1.0000	****			
Glyphosate 31bs a.e	OZ				1	32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt					0.5000				
Seed Levees	r -			1.00	Apr					
Rice Seed CvH(Levee)	lb				1	4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
App Fert by Air	cwt			1.00	Mav	1.0000				
Amm Sulfate (21% N)	cwt				1	0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	Mav	1.0000				
App by Air (5 gal)	appl			1.00	_	1.0000				
Regiment	OZ				- 2	0.5000				
Dyne-A-Pak	pt					0.5000				
App Fert by Air	cwt			1.00	Mav	2.6700				
Urea, Solid (46% N)	cwt				2	2.6700				
NBPT	pt					0.8000				
Rice Management	1			1.00	May					
RICE MGT. LABOR	hour				-				0.10	
App by Air (5 gal)	appl			1.00	May	1.0000				
Facet L	pt				_	2.6900				
Permit	OZ					0.7500				
Crop Oil Conc.(Pet.)	pt					0.4000				
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management				1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	0.6520				
Urea, Solid (46% N)	cwt					0.6520				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.20	
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	OZ					3.0000				
Rice Management				1.00	Aug					
RICE MGT. LABOR	hour								0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	180.0000				
Dry Rice	bu			1.00	Aug	180.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	

Table 26.D Estimated costs for field operations, per acre Conventional hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	ST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					c	dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Conv Hyb Trt	lb	142.37					2.85	145.22		145.22
Roller/Cultipacker	30'		0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	ΟZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees										
Rice Seed CvH(Levee)	lb	8.20					0.16	8.36		8.36
Rice Seed Trt/Insect	lbseed	1.23					0.02	1.25		1.25
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Regiment	OZ	21.78					0.36	22.14		22.14
Dyne-A-Pak	pt	2.58					0.04	2.62		2.62
App Fert by Air	cwt	20.02					0.33	20.35		20.35
Urea, Solid (46% N)	cwt	52.71					0.88	53.59		53.59
NBPT	pt	8.85					0.15	9.00		9.00
Rice Management										
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Facet L	pt	39.19					0.65	39.84		39.84
Permit	OZ	16.49					0.27	16.76		16.76
Crop Oil Conc.(Pet.)	pt	1.14					0.02	1.16		1.16
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	cwt	4.89					0.07	4.96		4.96
Urea, Solid (46% N)	cwt	12.87					0.17	13.04		13.04
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	63.00					0.42			63.42
Dry Rice	bu	72.00					0.48			72.48
Disk Heavy	28'		2.68	3.45	4.22		0.03			
Flood Irr.	acre	4.50	42.82	15.12	33.79		1.47	97.70	46.79	144.49
TOTALS		624.10	54.81	33.83	59.81	0.00	11.89	784.44	110.44	894.88

Table 26.E Estimated monthly income and expense flows per acre Conventional hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<u></u>						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	151.80	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	3.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	16.10	7.71	8.61	8.61	10.88	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.81	11.22	11.22	11.22	5.32	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.10	8.20	2.29	2.29	10.24	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.62	4.00	0.84	0.38	1.08	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	236.42	243.22	63.57	38.04	162.52	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-236.42	-243.22	-63.57	-38.04	755.48	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-266.71	-509.93	-573.50	-611.54	143.94	133.56

^{*} Lease costs are based on hourly usage costs

Table 26.F Estimated returns for various price/yield combinations, per acre Conventional hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35			6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	90.00	bu	-372 -482	-349 -459	-326 -436	-303 -413	-280 -390	-257 -367	-234 -344	-211 -322	-188 -299	-165 -276	-142 -253
60	108.00	bu	-316 -427	-289 -399	-261 -372	-234 -344	-206 -317	-179 -289	-151 -262	-124 -234	-96 -207	-69 -179	-41 -152
70	126.00	bu	-261 -372	-229 -340	-197 -307	-165 -275	-133 -243	-101 -211	-68 -179	-36 -147	-4 -115	27 -82	59 -50
80	144.00	bu	-206 -316	-169 -280	-133 -243	-96 -206	-59 -170	-22 -133	13 -96	50 -59	87 -23	124 13	160 50
90	162.00	bu	-151 -261	-109 -220	-68 -179	-27 -137	14 -96	55 -55	96 -13	137 27	179 68	220 110	261 151
100	180.00	bu	-95 -206	-50 -160	-4 -114	41 -68	87 -22	133 23	179 69	225 114	271 160	317 206	363 252
110	198.00	bu	-40 -151	9 -100	60 -50	110 0	161 50	211 101	262 151	312 202	363 252	413 303	464 353
120	216.00	bu	14 -95	69 -40	124 14	179 69	234 124	289 179	345 234	400 289	455 344	510 399	565 454
130	234.00	bu	69 -40	129 19	189 78	248 138	308 198	368 257	427 317	487 377	547 436	606 496	666 556
140	252.00	bu	125 14	189 78	253 143	317 207	382 271	446 335	510 400	574 464	639 528	703 593	767 657
150	270.00	bu	180 69	249 138	318 207	386 276	455 345	524 414	593 483	662 551	731 620	800 689	868 758

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 27.A Estimated costs per acre Conventional hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY	1	7.00	4 5000	21 50	
App by Air (5 gal) App by Air (3 gal) FERTILIZERS	appl appl	7.00 5.50	4.5000 1.5000	31.50 8.25	
Amm Sulfate (21% N)	cwt	18.66	0.5000	9.33	
DAP Urea, Solid (46% N)	cwt cwt	20.99 19.74	0.5000 3.3220	10.50 65.58	
NBPT HERBICIDES	pt	11.06	0.8000	8.85	
Glyphosate 31bs a.e	OZ	0.13	80.0000	10.40	
2,4-D Amine 4 Command 3ME	pt pt	2.25 18.17	2.0000 1.0000	4.50 18.17	
Sharpen	OZ	6.04	2.0000	12.08	
Regiment Facet L	oz pt	43.56 14.57	0.5000 2.6900	21.78 39.19	
Permit	OZ	21.99	0.7500	16.49	
Clincher SF INSECTICIDES	OZ	2.26	7.5000	16.95	
Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Conv Hyb Trt	lb	6.19	23.0000	142.37	
Rice Seed CvH(Levee) Rice Seed Trt/Insect		1.93 0.29	4.2500 4.2500	8.20 1.23	
ADJUVANTS					
MSO Class Act NG	pt pt	2.40 1.75	1.5000 0.5000	3.60 0.88	
Dyne-A-Pak	pt	5.16	0.5000	2.58	
Crop Oil Conc.(Pet.) CUSTOM FERTILIZE	pt	2.86	0.4000	1.14	
App Fert by Air	cwt	7.50	4.3220	32.42	
Haul Rice DRYING	bu	0.35	180.0000	63.00	
Dry Rice	bu	0.40	180.0000	72.00	
SURVEY & MARK LEVEES Survey & Mark Levees	acre	4.50	0.5000	2.25	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR					
Tractors Harvesters	hour hour	14.68 14.68	0.4999 0.1760	7.33 2.58	
IRRIGATE LABOR					
Special Labor HAND LABOR	hour	9.06	2.3750	21.52	
Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR					
Special Labor UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
Tractors	gal	1.53	5.5719	8.51	
Harvesters Flood Irr.	gal gal	1.53 1.53	2.9444 21.9949	4.51 33.64	
REPAIR & MAINTENANCE	_				
Implements Tractors	acre acre	8.50 3.45	1.0000	8.50 3.45	
Harvesters	acre	7.24	1.0000	7.24	
Flood Irr. INTEREST ON OP. CAP.	acre acre	14.31 11.58	1.0000 1.0000	14.31 11.58	
TOTAL DIRECT EXPENSES				762.26	
FIXED EXPENSES					
Implements Tractors	acre acre	17.65 21.12	1.0000	17.65 21.12	
Harvesters	acre	27.72	1.0000	27.72	
Flood Irr.	acre	64.81	1.0000	64.81	
TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES				893.56	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 27.B Summary of estimated costs and returns per acre Conventional hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	180.0000	918.00	
TOTAL INCOME			•	918.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.75	1.0000	39.75	
FERTILIZERS	acre	94.26	1.0000	94.26	
HERBICIDES	acre	139.56	1.0000	139.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	151.80	1.0000	151.80	
ADJUVANTS	acre	8.20	1.0000	8.20	
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41	
HAULING	acre	63.00	1.0000	63.00	
DRYING	acre	72.00	1.0000	72.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST		3.33	1.0000		
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	2.3750	21 52	
OPERATOR LABOR	hour	14.68	0.6759	9.91	
RICE MGT. LABOR	hour	9.06	0 . /000	6.34	
	hour		0.5389	7.92	
DIESEL FUEL	gal	1.53	30.5114	46.66	
REPAIR & MAINTENANCE	acre	33.50	1.0000		
INTEREST ON OP. CAP.	acre			11.58	
TOTAL DIRECT EXPENSES			•	762.26	
RETURNS ABOVE DIRECT EXE	PENSES			155.74	
TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES	5		•	893.56	
RETURNS ABOVE TOTAL SPEC		EXPENSES		24.44	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 27.C Estimated resource use for field operations, per acre Conventional hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct	0.3330	0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl	MEWD 225	0.030	1.00	Feb	1.0000	0.05	0.03	0.05	0.05
Glyphosate 31bs a.e	OZ			1.00	100	48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr	2.0000	0.07	0.07	0.15	0.07
Rice Conv Hyb Trt	lb	THE WD 225	0.070	1.00	1101	23.0000	0.07	0.07	0.13	0.07
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr	23.0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl	THE WD 225	0.045	1.00	_	1.0000	0.04	0.01	0.04	0.01
Glyphosate 3lbs a.e	OZ			1.00	1101	32.0000				
Command 3ME						1.0000				
	pt					2.0000				
Sharpen MSO	OZ									
	pt ~+					0.5000				
Class Act NG	pt			1 00	7	0.5000				
Seed Levees	11.			1.00	Apr.	4 0500				
Rice Seed CvH(Levee)	lb					4.2500				
Rice Seed Trt/Insect				1 00	3.6	4.2500				
App Fert by Air	cwt			1.00	мау	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	_	1.0000				
App by Air (5 gal)	appl			1.00	Мау	1.0000				
Regiment	OZ					0.5000				
Dyne-A-Pak	pt					0.5000				
App Fert by Air	cwt			1.00	May	2.6700				
Urea, Solid (46% N)	cwt					2.6700				
NBPT	pt					0.8000				
Rice Management	_			1.00	May					
RICE MGT. LABOR	hour								0.10	
App by Air (5 gal)	appl			1.00	May	1.0000				
Facet L	pt					2.6900				
Permit	OZ					0.7500				
Crop Oil Conc. (Pet.)	pt					0.4000				
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management				1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	0.6520				
Urea, Solid (46% N)	cwt					0.6520				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.20	
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	OZ					3.0000				
Rice Management				1.00	Aug					
RICE MGT. LABOR	hour								0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	180.0000				
Dry Rice	bu			1.00	Aug	180.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.07	0.07	2.45	

Table 27.D Estimated costs for field operations, per acre Conventional hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	ST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					c	dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Conv Hyb Trt	lb	142.37					2.85	145.22		145.22
Roller/Cultipacker	30'		0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 3lbs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees	Po	0.00					0.02	0.30		0.30
Rice Seed CvH(Levee)	lb	8.20					0.16	8.36		8.36
Rice Seed Trt/Insect	lbseed	1.23					0.02	1.25		1.25
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Regiment	OZ	21.78					0.36	22.14		22.14
Dyne-A-Pak	pt	2.58					0.04	2.62		2.62
App Fert by Air	cwt	20.02					0.33	20.35		20.35
Urea, Solid (46% N)	cwt	52.71					0.88	53.59		53.59
NBPT	pt	8.85					0.15	9.00		9.00
Rice Management	r -									
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Facet L	pt	39.19					0.65	39.84		39.84
Permit	OZ	16.49					0.27	16.76		16.76
Crop Oil Conc.(Pet.)	pt	1.14					0.02	1.16		1.16
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management	рc	2.40					0.05	2.45		2.43
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
	hour	4.89			1.01		0.02	4.96		
App Fert by Air	cwt									4.96
Urea, Solid (46% N)	cwt	12.87					0.17	13.04		13.04
Rice Management	la a				1 01		0 00	1 02		1 00
RICE MGT. LABOR	hour	0 05			1.81		0.02	1.83		1.83
App by Air (3 gal)	appl	8.25					0.08			8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management								4 00		
RICE MGT. LABOR	hour				1.81		0.01	1.82	04.45	1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	63.00					0.42			63.42
Dry Rice	bu	72.00					0.48			72.48
Disk Heavy	28'		2.68	3.45	4.22		0.03			
Flood Irr.	acre	2.25	34.67	14.79	22.65		1.16	75.52	67.65	143.17
TOTALS		621.85	46.66	33.50	48.67	0.00	11.58	762.26	131.30	893.56

Table 27.E Estimated monthly income and expense flows per acre Conventional hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
·						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	151.80	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	3.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	12.07	5.44	6.34	6.34	10.58	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.45	8.72	8.72	8.72	5.03	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.25	8.09	2.18	2.18	10.09	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.50	3.92	0.78	0.33	1.08	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	229.81	238.26	58.63	33.11	161.78	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-229.81	-238.26	-58.63	-33.11	756.22	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-260.10	-498.36	-556.99	-590.10	166.12	155.74

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

* Lease costs are based on hourly usage costs.

Table 27.F Estimated returns for various price/yield combinations, per acre Conventional hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35			6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	90.00	bu	-350 -481	-327 -458	-304 -435	-281 -412	-258 -389	-235 -366	-212 -343	-189 -320	-166 -297	-143 -274	-120 -251
60	108.00	bu	-294 -426	-267 -398	-239 -371	-212 -343	-184 -315	-157 -288	-129 -260	-102 -233	-74 -205	-46 -178	-19 -150
70	126.00	bu	-239 -370	-207 -338	-175 -306	-143 -274	-111 -242	-78 -210	-46 -178	-14 -145	17 -113	49 -81	81 -49
80	144.00	bu	-184 -315	-147 -278	-110 -242	-74 -205	-37 -168	-0 -131	36 -95	72 -58	109 -21	146 14	182 51
90	162.00	bu	-129 -260	-87 -219	-46 -177	-5 -136	36 -95	77 -53	118 -12	160 28	201 70	242 111	284 152
100	180.00	bu	-73 -205	-27 -159	18 -113	63 -67	109 -21	155 24	201 70	247 116	293 162	339 208	385 253
110	198.00	bu	-18 -149	31 -99	82 -48	132 1	183 52	233 102	284 153	334 203	385 254	435 304	486 355
120	216.00	bu	36 -94	91 -39	146 15	202 70	257 125	312 180	367 235	422 291	477 346	532 401	587 456
130	234.00	bu	92 -39	151 20	211 80	271 139	330 199	390 259	450 318	509 378	569 438	629 497	688 557
140	252.00	bu	147 15	211 80	275 144	340 208	404 273	468 337	532 401	597 465	661 530	725 594	789 658
150	270.00	bu	202 71	271 140	340 208	409 277	477 346	546 415	615 484	684 553	753 622	822 690	891 759

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 28.A Estimated costs per acre Conventional hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

riood iiiiga					
ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES CUSTOM SPRAY		dollars		dollars	
App by Air (5 gal) App by Air (3 gal) FERTILIZERS	appl appl	7.00 5.50	4.5000 1.5000	31.50 8.25	
Amm Sulfate (21% N) DAP Urea, Solid (46% N) NBPT	cwt cwt cwt pt	18.66 20.99 19.74 11.06	0.5000 0.5000 3.3220 0.8000	9.33 10.50 65.58 8.85	
HERBICIDES Glyphosate 3lbs a.e 2,4-D Amine 4 Command 3ME Sharpen Regiment Facet L Permit Clincher SF	oz pt pt oz oz pt oz	0.13 2.25 18.17 6.04 43.56 14.57 21.99 2.26	80.0000 2.0000 1.0000 2.0000 0.5000 2.6900 0.7500	10.40 4.50 18.17 12.08 21.78 39.19 16.49 16.95	
INSECTICIDES Warrior ZT	OZ	2.43	3.0000	7.29	
IRRIGATION SUPPLIES ROll-Out Pipe SEED/PLANTS	ft	0.24	33.0000	7.92	
Rice Conv Hyb Trt Rice Seed CvH(Levee) Rice Seed Trt/Insect ADJUVANTS		6.19 1.93 0.29	23.0000 4.2500 4.2500	142.37 8.20 1.23	
MSO Class Act NG Dyne-A-Pak Crop Oil Conc.(Pet.) CUSTOM FERTILIZE	pt pt pt pt	2.40 1.75 5.16 2.86	1.5000 0.5000 0.5000 0.4000	3.60 0.88 2.58 1.14	
App Fert by Air HAULING	cwt	7.50	4.3220	32.42	
Haul Rice DRYING	bu	0.35	180.0000	63.00	
Dry Rice SURVEY & MARK LEVEES	bu	0.40	180.0000	72.00	
Survey & Mark Levees CROP CONSULTANT	acre	4.50	0.5000	2.25	
Rice Consultant SOIL TEST	acre	8.00	1.0000	8.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters IRRIGATE LABOR	hour hour	14.68 14.68	0.5281 0.1760	7.74 2.58	
Special Labor Implements HAND LABOR	hour hour	9.06 9.06	1.1250 0.0375	10.18 0.34	
Special Labor Implements RICE MGT. LABOR	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
Special Labor UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
Tractors Harvesters Flood Irr. REPAIR & MAINTENANCE	gal gal gal	1.53 1.53 1.53	5.8180 2.9444 18.7364	8.89 4.51 28.67	
<pre>Implements Tractors Harvesters Flood Irr.</pre>	acre acre acre	8.58 3.59 7.24 13.96	1.0000 1.0000 1.0000 1.0000	8.58 3.59 7.24 13.96	
INTEREST ON OP. CAP. TOTAL DIRECT EXPENSES	acre	11.50	1.0000	11.50 754.79	
FIXED EXPENSES Implements Tractors Harvesters Flood Irr.	acre acre acre acre	18.29 21.98 27.72 64.48	1.0000 1.0000 1.0000 1.0000	18.29 21.98 27.72 64.48	
TOTAL FIXED EXPENSES		-1.10	1.0000	132.47	
TOTAL SPECIFIED EXPENSES				887.26	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 28.B Summary of estimated costs and returns per acre Conventional hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	180.0000	918.00	
TOTAL INCOME				918.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.75	1.0000	39.75	
FERTILIZERS	acre	94.26	1.0000	94.26	
HERBICIDES	acre	139.56	1.0000	139.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	151.80	1.0000	151.80	
ADJUVANTS	acre	8.20	1.0000	8.20	
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41	
HAULING	acre	63.00	1.0000	63.00	
DRYING	acre	72.00	1.0000	72.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.1625	10.52	
OPERATOR LABOR	hour	14.68	0.7041	10.32	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	27.4990	42.07	
REPAIR & MAINTENANCE	acre	33.37	1.0000	33.37	
INTEREST ON OP. CAP.	acre	11.50	1.0000	11.50	
TOTAL DIRECT EXPENSES			•	754.79	
RETURNS ABOVE DIRECT EX	PENSES			163.21	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES			-	887.26	
RETURNS ABOVE TOTAL SPEC		EXPENSES		30.74	

Table 28.C Estimated resource use for field operations, per acre Conventional hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE		TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								hoi	ırs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32 '	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr		0.07	0.07	0.15	0.07
Rice Conv Hyb Trt	lb				_	23.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr	1 0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e Command 3ME	OZ					32.0000				
	pt					1.0000				
Sharpen MSO	oz pt					0.5000				
Class Act NG	pt					0.5000				
Seed Levees	рc			1.00	Anr	0.3000				
Rice Seed CvH(Levee)	lb			1.00	TAL	4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
App Fert by Air	cwt			1.00	Mav	1.0000				
Amm Sulfate (21% N)	cwt			1.00	1101	0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	May	1.0000				
App by Air (5 gal)	appl				May	1.0000				
Regiment	OZ				_	0.5000				
Dyne-A-Pak	pt					0.5000				
App Fert by Air	cwt			1.00	May	2.6700				
Urea, Solid (46% N)	cwt					2.6700				
NBPT	pt					0.8000				
Rice Management				1.00	May					
RICE MGT. LABOR	hour								0.10	
App by Air (5 gal)	appl			1.00	May	1.0000				
Facet L	pt					2.6900				
Permit	OZ					0.7500				
Crop Oil Conc. (Pet.)	=					0.4000				
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt			1 00	_	1.0000				
Rice Management	la a			1.00	Jun				0 20	
RICE MGT. LABOR	hour			1 00	T	0 (500			0.20	
App Fert by Air	cwt			1.00	Jun	0.6520 0.6520				
Urea, Solid (46% N) Rice Management	cwt			1.00	Jul	0.6320				
RICE MGT. LABOR	hour			1.00	Jul				0.20	
	hour			1.50	T111	1 5000			0.20	
App by Air (3 gal) Warrior ZT	appl			1.50	Jul	1.5000 3.0000				
Rice Management	ΟZ			1.00	7110	3.0000				
RICE MGT. LABOR	hour			1.00	Aug				0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055		Aug		0.01	0.01	0.01	0.00
Handling & Storage	700 Du	THE WID ZZJ	0.000	1.00	Aug		0.01	0.01	0.01	0.00
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	180.0000			J.25	
Dry Rice	bu			1.00	Aug	180.0000				
=	28'	MFWD 225	0.075		Sep	,	0.15	0.15	0.15	0.13
DISK REAVV					-					
Disk Heavy Flood Irr.	acre				Jan	1.0000	0.10	0.10	1.26	
	acre				Jan	1.0000	0.10	0.10	1.26	

Table 28.D Estimated costs for field operations, per acre Conventional hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/	SIZE/			1	DIRECT CO)ST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollona				
					(JOITALS-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50	1 20	0 54	2 00		0.12	4.62	7 10	4.62
Grain Drill Rice Conv Hyb Trt	24' lb	142.37	1.39	2.54	2.90		0.14	6.97 145.22	7.12	14.09 145.22
Roller/Cultipacker	30'	142.57	0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00	0.00	0.55	1.33		0.14	7.14	2.43	7.14
Glyphosate 31bs a.e		4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees										
Rice Seed CvH(Levee)	lb	8.20					0.16	8.36		8.36
Rice Seed Trt/Insect	lbseed	1.23					0.02	1.25		1.25
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
	appl	7.00					0.12	7.12		7.12
Regiment Dyne-A-Pak	OZ D+	21.78 2.58					0.36	22.14		2.62
App Fert by Air	pt cwt	20.02					0.33	20.35		20.35
Urea, Solid (46% N)	cwt	52.71					0.88	53.59		53.59
NBPT	pt	8.85					0.15	9.00		9.00
Rice Management	Po	0.00					0.10	3.00		3.00
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	7.00					0.12	7.12		7.12
Facet L	pt	39.19					0.65	39.84		39.84
Permit	OZ	16.49					0.27	16.76		16.76
Crop Oil Conc.(Pet.)	pt	1.14					0.02	1.16		1.16
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	ΟZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management								4 00		4 00
RICE MGT. LABOR	hour	4 00			1.81		0.02	1.83		1.83
App Fert by Air	cwt	4.89					0.07	4.96		4.96
Urea, Solid (46% N)	cwt	12.87					0.17	13.04		13.04
Rice Management RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (3 gal)	appl	8.25			1.01		0.02			8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management	02	, •23					0.07	, • • • •		, •00
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	63.00					0.42	63.42		63.42
Dry Rice	bu	72.00					0.48			72.48
Disk Heavy	28'		2.68	3.45	4.22		0.03			
Flood Irr.	acre	10.17	30.08	14.66	12.06		1.08	68.05	68.82	136.87
moma			40.05				11 50		100 15	
TOTALS		629.77	42.07	33.37	38.08	0.00	11.50	754.79	132.47	887.26

Table 28.E Estimated monthly income and expense flows per acre Conventional hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
·						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	151.80	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	3.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	9.90	2.72	3.62	3.62	10.32	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	9.50	7.48	7.48	7.48	5.11	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.31	8.01	2.10	2.10	10.14	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.60	3.85	0.72	0.29	1.07	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	234.77	234.15	54.53	29.03	161.64	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-234.77	-234.15	-54.53	-29.03	756.36	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-265.06	-499.21	-553.74	-582.77	173.59	163.21

^{*} Lease costs are based on hourly usage costs.

Table 28.F Estimated returns for various price/yield combinations, per acre Conventional hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95	100	105		115	120	125
Rice			3.82	4.08		4.59		5.10			5.86	6.12	6.37
PERCENT	YIELD	UNIT					d	ollars					
50	90.00	bu	-342 -475	-319 -452	-296 -429	-273 -406	-250 -383	-227 -360	-204 -337	-181 -314	-158 -291	-136 -268	-113 -245
60	108.00	bu	-287 -419	-259 -392	-232 -364	-204 -337	-177 -309	-149 -282	-122 -254	-94 -227	-67 -199	-39 -171	-11 -144
70	126.00	bu	-232 -364	-199 -332	-167 -300	-135 -268	-103 -236	-71 -203	-39 -171	-7 -139	24 -107	57 -75	89 -43
80	144.00	bu	-176 -309	-140 -272	-103 -235	-66 -199	-29 -162	6 -125	43 -88	80 -52	116 -15	153 21	190 57
90	162.00	bu	-121 -254	-80 -212	-38 -171	2 -130	43 -88	85 -47	126 -6	167 35	208 76	250 117	291 159
100	180.00	bu	-66 -198	-20 -152	25 -106	71 -61	117 -15	163 30	209 76	255 122	300 168	346 214	392 260
110	198.00	bu	-11 -143	39 -93	89 -42	140 7	190 58	241 108	291 159	342 209	392 260	443 310	493 361
120	216.00	bu	44 -88	99 -33	154 21	209 77	264 132	319 187	374 242	429 297	484 352	539 407	595 462
130	234.00	bu	99 -32	159 26	218 86	278 146	338 205	397 265	457 325	517 384	576 444	636 504	696 563
140	252.00	bu	154 22	219 86	283 150	347 215	411 279	476 343	540 407	604 472	668 536	733 600	797 664
150	270.00	bu	210 77	278 146	347 215	416 284	485 352	554 421	623 490	691 559	760 628	829 697	898 766

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 29.A Estimated costs per acre Conventional hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (3 gal) FERTILIZERS	appl appl	7.00 5.50	4.5000 1.5000	31.50 8.25	
Amm Sulfate (21% N) DAP	cwt cwt	18.66 20.99	0.5000 0.5000	9.33 10.50	
Urea, Solid (46% N) NBPT HERBICIDES	cwt pt	19.74 11.06	3.3220 0.8000	65.58 8.85	
Glyphosate 31bs a.e 2,4-D Amine 4	oz pt	0.13 2.25	80.0000 2.0000	10.40	
Command 3ME Sharpen Regiment	pt oz oz	18.17 6.04 43.56	1.0000 2.0000 0.5000	18.17 12.08 21.78	
Facet L Permit	pt oz	14.57 21.99	2.6900 0.7500	39.19 16.49	
Clincher SF INSECTICIDES	OZ	2.26	7.5000	16.95	
Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Conv Hyb Trt Rice Seed CvH(Levee) Rice Seed Trt/Insect ADJUVANTS	lb lb lbseed	6.19 1.93 0.29	23.0000 4.2500 4.2500	142.37 8.20 1.23	
MSO Class Act NG Dyne-A-Pak	pt pt pt	2.40 1.75 5.16	1.5000 0.5000 0.5000	3.60 0.88 2.58	
Crop Oil Conc.(Pet.) CUSTOM FERTILIZE		2.86	0.4000	1.14	
App Fert by Air	cwt	7.50	4.3220	32.42	
Haul Rice DRYING	bu	0.35	180.0000	63.00	
Dry Rice CROP CONSULTANT	bu	0.40	180.0000	72.00	
Rice Consultant SOIL TEST	acre	8.00	1.0000	8.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters	hour hour	14.68 14.68	0.4228 0.1760	6.20 2.58	
IRRIGATE LABOR Special Labor HAND LABOR	hour	9.06	1.0500	9.53	
Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR Special Labor UNALLOCATED LABOR	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
DIESEL FUEL Tractors	gal	1.53	4.8970	7.48	
Harvesters Flood Irr. REPAIR & MAINTENANCE	gal gal	1.53 1.53	2.9444 15.4779	4.51 23.68	
Implements Tractors	acre acre	8.40 3.07	1.0000	8.40 3.07	
Harvesters Flood Irr.	acre	7.24 11.80	1.0000	7.24 11.80	
INTEREST ON OP. CAP.	acre	11.10	1.0000	11.10	
TOTAL DIRECT EXPENSES FIXED EXPENSES				732.43	
Implements Tractors	acre acre	17.16 18.77	1.0000	17.16 18.77	
Harvesters Flood Irr.	acre acre	27.72 64.16	1.0000	27.72 64.16	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES				860.24	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 29.B Summary of estimated costs and returns per acre Conventional hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	180.0000	918.00	
TOTAL INCOME				918.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.75	1.0000	39.75	
FERTILIZERS	acre	94.26	1.0000	94.26	
HERBICIDES	acre	139.56	1.0000	139.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	151.80	1.0000	151.80	
ADJUVANTS	acre	8.20	1.0000	8.20	
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41	
HAULING	acre	63.00	1.0000	63.00	
DRYING	acre	72.00	1.0000	72.00	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06		2.98	
IRRIGATE LABOR	hour	9.06	1.0500	9.53	
OPERATOR LABOR	hour	14.68		8.78	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour		0.5389	7.92	
DIESEL FUEL	gal		23.3194		
REPAIR & MAINTENANCE	acre	30.51	1.0000	30.51	
INTEREST ON OP. CAP.	acre	11.10	1.0000	11.10	
TOTAL DIRECT EXPENSES				732.43	
RETURNS ABOVE DIRECT EXP	ENSES			185.57	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES	}			860.24	
RETURNS ABOVE TOTAL SPEC	:IFIED :	EXPENSES		57.76	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 29.C Estimated resource use for field operations, per acre Conventional hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

										LABOR
								hoi	 urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046		Oct	0.0000	0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl	THE WD 225	0.050	1.00	Feb	1.0000	0.05	0.05	0.05	0.00
Glyphosate 31bs a.e	OZ			1.00	100	48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1 00	Apr	2.0000	0.07	0.07	0.15	0.07
Rice Conv Hyb Trt	lb	111 WD 223	0.070	1.00	11PI	23.0000	0.07	0.07	0.10	0.07
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr	20.0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl	111.112 220	0.013	1.00	-	1.0000	0.01	0.01	0.01	0.01
Glyphosate 31bs a.e	OZ				1	32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt					0.5000				
Seed Levees	r =			1.00	Apr	2.0000				
Rice Seed CvH(Levee)	lb				1	4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
App Fert by Air	cwt			1.00	Mav	1.0000				
Amm Sulfate (21% N)	cwt				1	0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	Mav	1.0000				
App by Air (5 gal)	appl			1.00	-	1.0000				
Regiment	OZ			1.00	1101	0.5000				
Dyne-A-Pak	pt					0.5000				
App Fert by Air	cwt			1.00	Mav	2.6700				
Urea, Solid (46% N)	cwt				1	2.6700				
NBPT	pt					0.8000				
Rice Management	Po			1.00	Mav	0.0000				
RICE MGT. LABOR	hour				1				0.10	
App by Air (5 gal)	appl			1.00	Mav	1.0000			0.10	
Facet L	pt			1.00	1101	2.6900				
Permit	OZ					0.7500				
Crop Oil Conc.(Pet.)	pt					0.4000				
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management	F -			1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	0.6520			**-*	
Urea, Solid (46% N)	cwt			1.00	0 411	0.6520				
Rice Management	00			1.00	Jul	0.0020				
RICE MGT. LABOR	hour								0.20	
App by Air (3 gal)	appl			1.50	Jul	1.5000			**-*	
Warrior ZT	OZ					3.0000				
Rice Management				1.00	Aua					
RICE MGT. LABOR	hour			1.00	1149				0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug		* · · · ÷			- • • •
HAND LABOR	hour				5				0.25	
Haul Rice	bu			1.00	Aug	180.0000			0.20	
Dry Rice	bu			1.00	Aug	180.0000				
Disk Heavy	28'	MFWD 225	0.075		Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre	220	0.070		Jan	1.0000	U. ± U	0.10	1.05	0.10
					0 311	0000				
TOTALS							0.59	0.59	2.67	0.53

Table 29.D Estimated costs for field operations, per acre Conventional hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATING INPUT Soil Test Field Cultivate Fld Harrow - Folding	unit	OP INPUT	FUEL	R&M	LABOR LEA	ASE INTER	TOTAL	COST	COST
Field Cultivate Fld									
Field Cultivate Fld					dolla	ars			
	201	3.33				0.13	3.46		3.46
Harrow - Folding	32 '		1.65	1.69	2.60	0.24	6.18	8.28	14.46
_	40'		0.69	0.57	1.08	0.09		2.14	4.57
App by Air (5 gal)	appl	7.00				0.19			7.19
Glyphosate 31bs a.e	OZ	6.24				0.17			6.41
2,4-D Amine 4	pt	4.50				0.12	4.62		4.62
Grain Drill	24'	1.00	1.39	2.54	2.90	0.14	6.97	7.12	14.09
Rice Conv Hyb Trt	lb	142.37	1.00	2.01	2.30		145.22	7.12	145.22
Roller/Cultipacker	30'	112.07	0.88	0.53	1.39	0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00	0.00	0.00	1.00	0.14	7.14	2.10	7.14
		4.16				0.08	4.24		4.24
Glyphosate 31bs a.e									
Command 3ME	pt	18.17				0.36			18.53
Sharpen	OZ	12.08				0.24			12.32
MSO	pt	1.20				0.02			1.22
Class Act NG	pt	0.88				0.02	0.90		0.90
Seed Levees									
Rice Seed CvH(Levee)	lb	8.20				0.16	8.36		8.36
Rice Seed Trt/Insect	lbseed	1.23				0.02	1.25		1.25
App Fert by Air	cwt	7.50				0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33				0.16	9.49		9.49
DAP	cwt	10.50				0.18	10.68		10.68
Rice Consultant	acre	8.00				0.13	8.13		8.13
App by Air (5 gal)	appl	7.00				0.12	7.12		7.12
Regiment	OZ	21.78				0.36	22.14		22.14
Dyne-A-Pak	pt	2.58				0.04	2.62		2.62
App Fert by Air	cwt	20.02				0.33	20.35		20.35
Urea, Solid (46% N)	cwt	52.71				0.88	53.59		53.59
NBPT		8.85				0.15	9.00		9.00
	pt	0.05				0.13	5.00		5.00
Rice Management	1				0 01	0 00	0 02		0 02
RICE MGT. LABOR	hour	7 00			0.91	0.02	0.93		0.93
App by Air (5 gal)	appl	7.00				0.12	7.12		7.12
Facet L	pt	39.19				0.65	39.84		39.84
Permit	ΟZ	16.49				0.27	16.76		16.76
Crop Oil Conc.(Pet.)	pt	1.14				0.02	1.16		1.16
App by Air (5 gal)	appl	3.50				0.05	3.55		3.55
Clincher SF	OZ	16.95				0.23	17.18		17.18
MSO	pt	2.40				0.03	2.43		2.43
Rice Management									
RICE MGT. LABOR	hour				1.81	0.02	1.83		1.83
App Fert by Air	cwt	4.89				0.07	4.96		4.96
Urea, Solid (46% N)	cwt	12.87				0.17	13.04		13.04
Rice Management									
RICE MGT. LABOR	hour				1.81	0.02	1.83		1.83
App by Air (3 gal)	appl	8.25				0.08			8.33
Warrior ZT	OZ	7.29				0.07	7.36		7.36
Rice Management	02	,.23				0.07	7.50		,.50
RICE MGT. LABOR	hour				1.81	0.01	1.82		1.82
			4.51	0.72	4.91			31.45	50.72
Header - Draper (SL)	25' Rigid			9.72		0.13	19.27		
Grain Cart Rice	700 bu		0.19	0.21	0.31		0.71	0.71	1.42
Handling & Storage									
HAND LABOR	hour				2.27	0.02	2.29		2.29
Haul Rice	bu	63.00				0.42			63.42
Dry Rice	bu	72.00				0.48			72.48
Disk Heavy	28'		2.68	3.45	4.22	0.03	10.38		21.90
Flood Irr.	acre		23.68	11.80	9.53	0.68	45.69	64.16	109.85
momat c		610 60	2E 77	20 E1	25 5F ^	00 11 10	720 42	107 01	060.04
TOTALS		619.60	35.67	30.51	35.55 0	.00 11.10	732.43	127.81	860.24

Table 29.E Estimated monthly income and expense flows per acre Conventional hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
·						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	7.00	14.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	34.41	77.46	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	151.80	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.08	3.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	7.01	3.18	4.08	4.08	9.30	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	7.26	6.23	6.23	6.23	4.70	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	4.31	7.46	1.55	1.55	9.93	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.27	3.83	0.70	0.27	1.06	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	218.14	232.79	53.17	27.67	159.99	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-218.14	-232.79	-53.17	-27.67	758.01	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-248.43	-481.22	-534.39	-562.06	195.95	185.57

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

* Lease costs are based on hourly usage costs.

Table 29.F Estimated returns for various price/yield combinations, per acre Conventional hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100 ODUCT PRI	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59		5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	90.00	bu	-320 -448	-297 -425	-274 -402	-251 -379	-228 -356	-205 -333	-182 -310	-159 -287	-136 -264	-113 -241	-90 -218
60	108.00	bu	-264 -392	-237 -365	-209 -337	-182 -310	-154 -282	-127 -255	-99 -227	-72 -200	-44 -172	-17 -144	10 -117
70	126.00	bu	-209 -337	-177 -305	-145 -273	-113 -241	-81 -209	-49 -176	-16 -144	15 -112	47 -80	79 -48	111 -16
80	144.00	bu	-154 -282	-117 -245	-81 -208	-44 -172	-7 -135	29 -98	65 -61	102 -25	139 11	176 48	212 84
90	162.00	bu	-99 -227	-57 -185	-16 -144	24 -103	66 -61	107 -20	148 20	189 62	231 103	272 144	313 186
100	180.00	bu	-43 -171	1 -125	47 -79	93 -34	139 11	185 57	231 103	277 149	323 195	369 241	415 287
110	198.00	bu	11 -116	61 -65	112 -15	162 34	213 85	263 135	314 186	364 236	415 287	465 337	516 388
120	216.00	bu	66 -61	121 -6	176 48	231 104	286 159	341 214	397 269	452 324	507 379	562 434	617 489
130	234.00	bu	121 -5	181 53	241 113	300 173	360 232	420 292	479 352	539 411	599 471	658 531	718 590
140	252.00	bu	177 49	241 113	305 177	369 242	434 306	498 370	562 434	626 499	691 563	755 627	819 691
150	270.00	bu	232 104	301 173	370 242	438 311	507 379	576 448	645 517	714 586	783 655	852 724	920 793

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 30.A Estimated costs per acre Clearfield contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY App by Air (5 gal)	appl	7.00	4.5000	31.50	
App by Air (10 gal) App by Air (3 gal)	appl appl	9.00 5.50	1.0000 1.5000	9.00 8.25	
FERTĪLIŽERS Amm Sulfate (21% N)	cwt	18.66	0.5000	9.33	
DAP Urea, Solid (46% N)	cwt cwt	20.99 19.74	0.5000 4.0000	10.50 78.96	
NBPT FUNGICIDES	pt	11.06	0.7500	8.30	
Flint Extra Tilt 3.6 EC	OZ OZ	8.88 0.76	4.7000	41.74	
HERBICIDES Glyphosate 31bs a.e	OZ	0.13	80.0000	10.40	
2,4-D Amine 4 Command 3ME	pt pt	2.25 18.17	2.0000	4.50 18.17	
Sharpen	ŌZ	6.04	2.0000	12.08	
Clearpath Newpath	OZ OZ	3.76 3.83	9.6000 6.0000	36.10 22.98	
Aim Clincher SF	OZ OZ	5.67 2.26	1.5000 7.5000	8.50 16.95	
INSECTICIDES Warrior ZT	OZ	2.43	3.0000	7.29	
SEED/PLANTS Rice Seed Clearfield		0.96	65.0000	62.40	
Rice Seed Trt/Insect Rice Seed CF(Levees)		0.29	77.0000	22.33 11.52	
ADJUVANTS					
Class Act NG MSO	pt pt	1.75	0.5000	0.88	
Crop Oil Conc.(Pet.) Surfactant	pt pt	2.86 3.30	4.0000 0.1000	11.44 0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	160.0000	56.00	
DRYING Dry Rice	bu	0.40	160.0000	64.00	
SURVĒY & MARK LEVEES Survey & Mark Levees	acre	4.50	1.0000	4.50	
CROP COÑSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.5475	8.03	
Harvesters IRRIGATE LABOR	hour	14.68	0.2030	2.98	
Special Labor HAND LABOR	hour	9.06	3.5250	31.96	
Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR Special Labor	hour	9.06	1.5000	13.59	
UNALLOCATED LABOR DIESEL FUEL	hour	14.68	0.5633	8.27	
Tractors Harvesters	gal gal	1.53 1.53	5.9886 3.3975	9.16 5.20	
Flood Irr. REPAIR & MAINTENANCE	gal	1.53	26.8827	41.14	
Implements	acre	8.97	1.0000	8.97	
Tractors Harvesters	acre acre	3.69 8.36	1.0000	3.69 8.36	
Flood Irr. INTEREST ON OP. CAP.	acre acre	14.31 11.75	1.0000 1.0000	14.31 11.75	
TOTAL DIRECT EXPENSES				798.37	
FIXED EXPENSES Implements	acre	18.64	1.0000	18.64	
Tractors Harvesters	acre acre	22.58 31.99	1.0000	22.58 31.99	
Flood Irr.	acre	42.08	1.0000	42.08	
TOTAL FIXED EXPENSES				115.29	
TOTAL SPECIFIED EXPENSES				913.66	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 30.B Summary of estimated costs and returns per acre Clearfield contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME			-	816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	129.68	1.0000	129.68	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	96.25	1.0000	96.25	
ADJUVANTS	acre	16.25	1.0000	16.25	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000	64.00	
SURVEY & MARK LEVEES	acre	4.50	1.0000	4.50	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	3.5250	31.96	
OPERATOR LABOR	hour	14.68	0.7506	11.01	
RICE MGT. LABOR	hour	9.06	1.5000	13.59	
UNALLOCATED LABOR	hour	14.68	0.5633	8.27	
DIESEL FUEL	gal	1.53	36.2688	55.50	
REPAIR & MAINTENANCE	acre	35.33	1.0000	35.33	
INTEREST ON OP. CAP.	acre	11.75	1.0000	11.75	
TOTAL DIRECT EXPENSES			-	798.37	
RETURNS ABOVE DIRECT EXI	PENSES			17.63	
TOTAL FIXED EXPENSES				115.29	
TOTAL SPECIFIED EXPENSES	3		-	913.66	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-97.66	

Table 30.C Estimated resource use for field operations, per acre Clearfield contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	МТН	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								hou	ırs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct	1 0000	0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000 48.0000				
Glyphosate 3lbs a.e 2,4-D Amine 4	oz pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr	2.0000	0.07	0.07	0.15	0.07
Rice Seed Clearfield		111.112 220	0.070	1.00	1101	65.0000	0.07	0.07	0.10	0.07
Rice Seed Trt/Insect						65.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	ΟZ					2.0000				
Class Act NG	pt					0.5000				
MSO	pt			1 00	7	0.5000				
Seed Levees Rice Seed CF(Levees)	lb			1.00	Apr	12 0000				
Rice Seed Cr(Levees) Rice Seed Trt/Insect						12.0000				
App by Air (5 gal)	appl			1.00	Anr	1.0000				
Clearpath	OZ			1.00	1101	9.6000				
Crop Oil Conc.(Pet.)	pt					2.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	May	2.5000				
Urea, Solid (46% N)	cwt					2.5000				
NBPT	pt			1 00	M	0.7500				
App by Air (10 gal) Newpath	appl oz			1.00	мау	1.0000				
Crop Oil Conc.(Pet.)	pt					2.0000				
Aim	OZ					1.5000				
Rice Management				1.00	May					
RICE MGT. LABOR	hour				-				0.30	
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management				1.00	Jun					
RICE MGT. LABOR	hour			1 00	- .	1 5000			0.50	
App Fert by Air	cwt			1.00	Jun	1.5000 1.5000				
Urea, Solid (46% N) Rice Management	cwt			1.00	Jul	1.3000				
RICE MGT. LABOR	hour			1.00	Jul				0.50	
App by Air (5 gal)	appl			1.00	Jul	1.0000			0.50	
Flint Extra	OZ			1.00	041	4.7000				
Tilt 3.6 EC	ΟZ					10.0000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	OZ					3.0000				
Rice Management				1.00	Aug					
RICE MGT. LABOR	hour	205 3	0 000	1 00	7		0.00	0 00	0.20	0 4 -
Header - Draper (CL)	25' Rigid	325 hp	0.203		Aug		0.20	0.20	0.20	0.18
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		0.01	0.01	0.01	0.00
Handling & Storage HAND LABOR	hour			1.00	Aug				0.25	
Haul Rice	bu			1.00	Aug	160.0000			0.23	
Dry Rice	bu			1.00	Aug	160.0000				
Disk Heavy	28'	MFWD 225	0.075		Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	
								0.75		

Table 30.D Estimated costs for field operations, per acre Clearfield contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/	SIZE/]	DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33	4 65	4 60			0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'	= 00	0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
4.1	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50	1 20	0 54	0 00		0.12	4.62	7 10	4.62
Grain Drill Rice Seed Clearfield	24'	60.40	1.39	2.54	2.90		0.14	6.97	7.12	14.09
		62.40					1.25	63.65		63.65
Rice Seed Trt/Insect Roller/Cultipacker	lbseed	18.85	0.88	0.53	1.39			19.23	2 12	19.23
-		7.00	0.88	0.53	1.39		0.06 0.14	2.86 7.14	2.43	5.29 7.14
App by Air (5 gal) Glyphosate 3lbs a.e	appl oz	4.16					0.14	4.24		4.24
Command 3ME		18.17					0.36	18.53		18.53
	pt	12.08					0.36	12.32		12.32
Sharpen Class Act NG	OZ D+	0.88					0.24	0.90		0.90
MSO	pt pt	1.20					0.02	1.22		1.22
Seed Levees	РC	1.20					0.02	1.22		1.22
Rice Seed CF(Levees)	lb	11.52					0.23	11.75		11.75
Rice Seed Trt/Insect		3.48					0.07	3.55		3.55
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Clearpath	OZ	36.10					0.72	36.82		36.82
Crop Oil Conc. (Pet.)		5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Newpath	OZ	22.98					0.38	23.36		23.36
Crop Oil Conc. (Pet.)		5.72					0.10	5.82		5.82
Aim	OZ	8.50					0.14	8.64		8.64
Rice Management										
RICE MGT. LABOR	hour				2.72		0.05	2.77		2.77
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management	-									
RICE MGT. LABOR	hour				4.53		0.06	4.59		4.59
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management										
RICE MGT. LABOR	hour				4.53		0.05	4.58		4.58
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	ΟZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	ΟZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (CL)	25' Rigid		5.20	11.22	5.66		0.15	22.23	36.30	58.53
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	56.00					0.37	56.37		56.37
Dry Rice	bu	64.00					0.43	64.43		64.43
Disk Heavy	28'		2.68	3.45	4.22		0.03	10.38	11.52	21.90
Flood Irr.	acre	4.50	42.82	15.12	33.79		1.47	97.70		144.49
TOTALS		627.98	55.50	35.33	67.81	0.00	11.75	798.37	115.29	913.66

Table 30.E Estimated monthly income and expense flows per acre Clearfield contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	70.51	31.48	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	96.25	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	16.10	9.52	11.33	11.33	11.63	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.81	11.22	11.22	11.22	6.01	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.10	8.20	2.29	2.29	11.74	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.49	3.13	1.18	0.98	1.00	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	229.56	190.00	89.73	98.03	150.38	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-229.56	-190.00	-89.73	-98.03	665.62	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-259.85	-449.85	-539.58	-637.61	28.01	17.63

^{*} Lease costs are based on hourly usage costs.

Table 30.F Estimated returns for various price/yield combinations, per acre Clearfield contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95 BB	100 ODUCT PRI	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59		5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-431 -547	-411 -526	-391 -506	-370 -486	-350 -465	-329 -445	-309 -424	-289 -404	-268 -384	-248 -363	-227 -343
60	96.00	bu	-382 -498	-358 -473	-333 -449	-309 -424	-284 -400	-260 -375	-235 -351	-211 -326	-187 -302	-162 -277	-138 -253
70	112.00	bu	-333 -449	-305 -420	-276 -391	-248 -363	-219 -334	-190 -306	-162 -277	-133 -249	-105 -220	-76 -191	-48 -163
80	128.00	bu	-284 -399	-251 -367	-219 -334	-186 -301	-154 -269	-121 -236	-88 -204	-56 -171	-23 -138	9 -106	41 -73
90	144.00	bu	-235 -350	-198 -314	-162 -277	-125 -240	-88 -203	-51 -167	-15 -130	21 -93	58 -57	94 -20	131 16
100	160.00	bu	-186 -301	-145 -260	-104 -220	-63 -179	-23 -138	17 -97	58 -56	99 -16	140 24	180 65	221 106
110	176.00	bu	-137 -252	-92 -207	-47 -162	-2 -117	42 -73	87 -28	132 16	176 61	221 106	266 151	311 196
120	192.00	bu	-88 -203	-39 -154	9 -105	58 -56	107 -7	156 41	205 90	254 139	303 188	352 237	401 286
130	208.00	bu	-39 -154	14 -101	67 -48	120 4	173 57	226 110	279 163	332 216	385 270	438 323	491 376
140	224.00	bu	10 -105	67 -48	124 9	181 66	238 123	295 180	352 237	409 294	467 351	524 408	581 466
150	240.00	bu	59 -56	120 5	181 66	242 127	304 188	365 249	426 311	487 372	548 433	610 494	671 555

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices..

Table 31.A Estimated costs per acre Clearfield straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM ITEM	UNIT	PRICE	OUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (10 gal)	appl appl	7.00 9.00	4.5000 1.0000	31.50 9.00	
App by Air (3 gal) FERTILIZERS	appl	5.50	1.5000	8.25	
Amm Sulfate (21% N) DAP	cwt cwt	18.66 20.99	0.5000 0.5000	9.33 10.50	
Urea, Solid (46% N) NBPT	cwt pt	19.74 11.06	4.0000 0.7500	78.96 8.30	
FUNGICIDES Flint Extra	OZ	8.88	4.7000	41.74	
Tilt 3.6 EC HERBICIDES	OZ	0.76	10.0000	7.60	
Glyphosate 31bs a.e 2,4-D Amine 4	oz pt	0.13 2.25	80.0000	10.40 4.50	
Command 3ME Sharpen	pt oz	18.17 6.04	1.0000	18.17 12.08	
Clearpath Newpath	OZ OZ	3.76 3.83	9.6000	36.10 22.98	
Aim Clincher SF	ΟZ	5.67 2.26	1.5000	8.50 16.95	
INSECTICIDES	OZ		7.5000		
Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Seed Clearfield Rice Seed Trt/Insect	lbseed	0.96	65.0000	62.40	
Rice Seed CF(Levees) ADJUVANTS		0.96	12.0000	11.52	
MSO Class Act NG	pt pt	2.40 1.75	1.5000	3.60 0.88	
Crop Oil Conc.(Pet.) Surfactant	pt pt	2.86 3.30	4.0000 0.1000	11.44	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	160.0000	56.00	
DRYING Dry Rice	bu	0.40	160.0000	64.00	
SURVEY & MARK LEVEES Survey & Mark Levees	acre	4.50	0.5000	2.25	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.4999	7.33	
Harvesters IRRIGATE LABOR	hour	14.68	0.1760	2.58	
Special Labor HAND LABOR	hour	9.06	2.3750	21.52	
Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR Special Labor	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR DIESEL FUEL	hour	14.69	0.5389	7.92	
Tractors Harvesters	gal gal	1.53 1.53	5.5719 2.9444	8.51 4.51	
Flood Irr. REPAIR & MAINTENANCE	ğal	1.53	21.9949	33.64	
Implements Tractors	acre acre	8.50 3.45	1.0000	8.50 3.45	
Harvesters Flood Irr.	acre	7.24 14.31	1.0000	7.24 14.31	
INTEREST ON OP. CAP.	acre	11.32	1.0000	11.32	
TOTAL DIRECT EXPENSES FIXED EXPENSES				765.88	
Implements Tractors	acre	17.65 21.12	1.0000	17.65 21.12	
Harvesters Flood Irr.	acre	27.72 64.81	1.0000	27.72 27.72 64.81	
TOTAL FIXED EXPENSES	acre	04.01	1.0000		
				131.30	
TOTAL SPECIFIED EXPENSES				897.18	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 31.B Summary of estimated costs and returns per acre Clearfield straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME				816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	129.68	1.0000	129.68	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	96.25	1.0000	96.25	
ADJUVANTS	acre	16.25	1.0000	16.25	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000	64.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	2.3750	21.52	
OPERATOR LABOR	hour	14.68	0.6759	9.91	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	30.5114	46.66	
REPAIR & MAINTENANCE	acre	33.50	1.0000	33.50	
INTEREST ON OP. CAP.	acre	11.32	1.0000	11.32	
TOTAL DIRECT EXPENSES			-	765.88	
RETURNS ABOVE DIRECT EXE	PENSES			50.12	
TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES	5		•	897.18	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-81.18	

Table 31.C Estimated resource use for field operations, per acre Clearfield straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE		TIMES OVER	МТН	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr		0.07	0.07	0.15	0.07
Rice Seed Clearfield						65.0000				
Rice Seed Trt/Insect						65.0000				
Roller/Cultipacker	30'	MFWD 225	0.049		Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt					0.5000				
Seed Levees				1.00	Apr					
Rice Seed CF (Levees)	lb					12.0000				
Rice Seed Trt/Insect	lbseed					12.0000				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Clearpath	OZ					9.6000				
Crop Oil Conc. (Pet.)	pt					2.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt			4 00		0.5000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	Мау	2.5000				
Urea, Solid (46% N)	cwt					2.5000				
NBPT	pt			1 00	3.6.	0.7500				
App by Air (10 gal)	appl			1.00	мау	1.0000				
Newpath	OZ					6.0000				
Crop Oil Conc.(Pet.)	pt					2.0000				
Aim	OZ			1 00	M	1.5000				
Rice Management RICE MGT. LABOR	hour			1.00	Мау				0 10	
	hour			0.50	Jun	0.5000			0.10	
App by Air (5 gal) Clincher SF	appl oz			0.50	oun	7.5000				
MSO	pt					1.0000				
Rice Management	рc			1.00	Jun	1.0000				
RICE MGT. LABOR	hour			1.00	oun				0.20	
App Fert by Air	cwt			1.00	Jun	1.5000			0.20	
Urea, Solid (46% N)	cwt			1.00	oun	1.5000				
Rice Management	CWC			1.00	Jul	1.5000				
RICE MGT. LABOR	hour			1.00	our				0.20	
App by Air (5 gal)	appl			1.00	.T11]	1.0000			0.20	
Flint Extra	OZ			1.00	our	4.7000				
Tilt 3.6 EC	oz					10.0000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	.T11]	1.5000				
Warrior ZT	OZ			1.00	041	3.0000				
Rice Management	02			1.00	Αιια	0.0000				
RICE MGT. LABOR	hour								0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055		Aug		0.01	0.01	0.01	0.00
Handling & Storage		220		1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	160.0000			0.20	
Dry Rice	bu			1.00	Aug	160.0000				
Disk Heavy	28'	MFWD 225	0.075		Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre	229			Jan	1.0000	0.07	0.07	2.45	- • 0
	-									
TOTALS							0.67	0.67	4.07	0.53

Table 31.D Estimated costs for field operations, per acre Clearfield straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT COS	T			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					do	llars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Clearfield		62.40	1.03	2.01	2.30		1.25	63.65	,,,,,	63.65
Rice Seed Trt/Insect		18.85					0.38	19.23		19.23
Roller/Cultipacker	30'	10.00	0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00	0.00	0.33	1.33		0.14	7.14	2.45	7.14
							0.08	4.24		4.24
Glyphosate 31bs a.e		4.16								18.53
Command 3ME	pt	18.17					0.36	18.53		
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees										
Rice Seed CF(Levees)	lb	11.52					0.23	11.75		11.75
Rice Seed Trt/Insect	lbseed	3.48					0.07	3.55		3.55
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Clearpath	OZ	36.10					0.72	36.82		36.82
Crop Oil Conc.(Pet.)	pt	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Newpath	OZ	22.98					0.38	23.36		23.36
Crop Oil Conc.(Pet.)		5.72					0.10	5.82		5.82
Aim	OZ.	8.50					0.14	8.64		8.64
	02	0.50					0.14	0.04		0.04
Rice Management	hour				0 01		0 02	0 03		0 03
RICE MGT. LABOR	hour	2 50			0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	ΟZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07			7.36
Rice Management	02	7.23					0.07	7.50		7.30
RICE MGT. LABOR	hour				1.81		0.01	1.82		1 02
	hour		4 51	9.72	4.91				21 /5	1.82 50.72
Header - Draper (SL)	25' Rigid		4.51				0.13		31.45	
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage	_									
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	56.00					0.37			56.37
Dry Rice	bu	64.00					0.43	64.43		64.43
Disk Heavy	28'		2.68	3.45	4.22		0.03	10.38	11.52	21.90
Flood Irr.	acre	2.25	34.67	14.79	22.65		1.16	75.52		143.17
TOTALS		625.73	46.66	33.50	48.67	0.00	11.32		131.30	

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}\ \text{year}\,.$

Table 31.E Estimated monthly income and expense flows per acre Clearfield straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	70.51	31.48	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	96.25	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	12.07	5.44	6.34	6.34	10.58	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.45	8.72	8.72	8.72	5.03	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.25	8.09	2.18	2.18	10.09	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.37	3.02	1.08	0.90	0.98	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	222.95	183.20	82.03	90.35	146.68	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-222.95	-183.20	-82.03	-90.35	669.32	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-253.24	-436.44	-518.47	-608.82	60.50	50.12

^{*} Lease costs are based on hourly usage costs

Table 31.F Estimated returns for various price/yield combinations, per acre Clearfield straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59	4.84	ODUCT PRI	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-399 -530	-379 -510	-358 -489	-338 -469	-317 -449	-297 -428	-277 -408	-256 -387	-236 -367	-215 -347	-195 -326
60	96.00	bu	-350 -481	-325 -457	-301 -432	-276 -408	-252 -383	-227 -359	-203 -334	-179 -310	-154 -285	-130 -261	-105 -236
70	112.00	bu	-301 -432	-272 -403	-244 -375	-215 -346	-187 -318	-158 -289	-129 -261	-101 -232	-72 -204	-44 -175	-15 -146
80	128.00	bu	-252 -383	-219 -350	-186 -318	-154 -285	-121 -252	-88 -220	-56 -187	-23 -154	9 - 122	41 -89	74 -57
90	144.00	bu	-203 -334	-166 -297	-129 -260	-92 -224	-56 -187	-19 -150	17 -113	54 -77	90 -40	127 -3	164 32
100	160.00	bu	-153 -285	-113 -244	-72 -203	-31 -162	9 - 121	50 -81	90 -40	131 0	172 41	213 82	254 122
110	176.00	bu	-104 -236	-59 -191	-15 -146	29 -101	74 -56	119 -11	164 33	209 78	254 122	299 167	344 212
120	192.00	bu	-55 -186	-6 -137	42 -89	91 -40	140	189 57	238 106	287 155	336 204	385 253	433 302
130	208.00	bu	-6 -137	46 -84	99 -31	152 21	205 74	258 127	311 180	364 233	417 286	470 339	523 392
140	224.00	bu	42 -88	99 -31	156 25	213 82	271 139	328 196	385 254	442 311	499 368	556 425	613 482
150	240.00	bu	91 -39	152 21	214 82	275 144	336 205	397 266	458 327	520 388	581 450	642 511	703 572

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 32.A Estimated costs per acre Clearfield straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY	_				
App by Air (5 gal) App by Air (10 gal)	appl appl	7.00 9.00	4.5000	31.50 9.00	
App by Air (3 gal) FERTILIZERS	app1	5.50 18.66	1.5000	8.25 9.33	
Amm Sulfate (21% N) DAP Urea, Solid (46% N)	cwt cwt cwt	20.99 19.74	0.5000 4.0000	10.50 78.96	
NBPT FUNGICIDES	pt	11.06	0.7500	8.30	
Flint Extra Tilt 3.6 EC	OZ OZ	8.88 0.76	4.7000 10.0000	41.74 7.60	
HERBICIDES Glyphosate 31bs a.e	OZ	0.13	80.0000	10.40	
2,4-D Amine 4 Command 3ME	pt pt	2.25 18.17	2.0000	4.50 18.17	
Sharpen Clearpath	OZ OZ	6.04 3.76	2.0000 9.6000	12.08 36.10	
Newpath Aim	OZ OZ	3.83 5.67	6.0000 1.5000	22.98 8.50	
Clincher SF INSECTICIDES	OZ	2.26	7.5000	16.95	
Warrior ZT IRRIGATION SUPPLIES	OZ	2.43	3.0000	7.29	
Roll-Out Pipe SEED/PLANTS	ft	0.24	33.0000	7.92	
Rice Seed Clearfield Rice Seed Trt/Insect	lbseed	0.96 0.29	65.0000 77.0000	62.40 22.33	
Rice Seed CF(Levees) ADJUVANTS	lb	0.96	12.0000	11.52	
MSO Class Act NG	pt pt	2.40	1.5000	3.60 0.88	
Crop Oil Conc.(Pet.) Surfactant	pt pt	2.86 3.30	4.0000 0.1000	11.44	
CUSTOM FERTILIZE App Fert by Air HAULING	cwt	7.50	5.0000	37.50	
Haul Rice DRYING	bu	0.35	160.0000	56.00	
Dry Rice SURVEY & MARK LEVEES	bu	0.40	160.0000	64.00	
Survey & Mark Levees CROP CONSULTANT	acre	4.50	0.5000	2.25	
Rice Consultant SOIL TEST	acre	8.00	1.0000	8.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters	hour hour	14.68 14.68	0.5281	7.74 2.58	
IRRIGATE LABOR Special Labor	hour	9.06	1.1250	10.18	
Implements HAND LABOR	hour	9.06	0.0375	0.34	
Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR Special Labor	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR DIESEL FUEL	hour	14.69 1.53	0.5389 5.8180	7.92 8.89	
Tractors Harvesters Flood Irr.	gal gal gal	1.53 1.53	2.9444 18.7364	4.51 28.67	
REPAIR & MAINTENANCE Implements	acre	8.58	1.0000	8.58	
Tractors Harvesters	acre acre	3.59 7.24	1.0000	3.59 7.24	
Flood Irr. INTEREST ON OP. CAP.	acre	13.96 11.24	1.0000	13.96 11.24	
TOTAL DIRECT EXPENSES	22-0			758.41	
FIXED EXPENSES Implements	acre	18.29	1.0000	18.29	
Tractors Harvesters	acre acre	21.98 27.72	1.0000	21.98 27.72	
Flood Irr.	acre	64.48	1.0000	64.48	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES				890.88	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 32.B Summary of estimated costs and returns per acre Clearfield straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME				816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	129.68	1.0000	129.68	
INSECTICIDES	acre	7.29	1.0000	7.29	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	96.25	1.0000	96.25	
ADJUVANTS	acre	16.25	1.0000	16.25	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000	64.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.1625	10.52	
OPERATOR LABOR	hour	14.68	0.7041	10.32	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	27.4990	42.07	
REPAIR & MAINTENANCE	acre	33.37	1.0000	33.37	
INTEREST ON OP. CAP.	acre	11.24	1.0000	11.24	
TOTAL DIRECT EXPENSES			•	758.41	
RETURNS ABOVE DIRECT EXI	PENSES			57.59	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES	5		•	890.88	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-74.88	

Table 32.C Estimated resource use for field operations, per acre Clearfield straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								hoi	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	OZ					48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr		0.07	0.07	0.15	0.07
Rice Seed Clearfield	lb					65.0000				
Rice Seed Trt/Insect	lbseed					65.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt			1 00	_	0.5000				
Seed Levees	7.1.			1.00	Apr	10 0000				
Rice Seed CF(Levees)	lb					12.0000				
Rice Seed Trt/Insect	lbseed			1 00	_	12.0000				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Clearpath	OZ					9.6000				
Crop Oil Conc. (Pet.)	pt			1 00		2.0000				
App Fert by Air	cwt			1.00	Мау	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt			1 00	Marr	0.5000				
Rice Consultant	acre			1.00	_	1.0000				
App Fert by Air	cwt			1.00	мау	2.5000				
Urea, Solid (46% N) NBPT	cwt					2.5000				
App by Air (10 gal)	pt appl			1.00	Marr	0.7500 1.0000				
Newpath	OZ			1.00	на у	6.0000				
Crop Oil Conc.(Pet.)	pt					2.0000				
Aim	OZ					1.5000				
Rice Management	02			1.00	May	1.0000				
RICE MGT. LABOR	hour			1.00	1101 9				0.10	
App by Air (5 gal)	appl			0.50	Jun	0.5000			0.10	
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management	1 -			1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	1.5000				
Urea, Solid (46% N)	cwt					1.5000				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.20	
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Flint Extra	OZ					4.7000				
Tilt 3.6 EC	OZ					10.0000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	OZ					3.0000				
Rice Management				1.00	Aug					
RICE MGT. LABOR	hour								0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	160.0000				
Dry Rice	bu			1.00	Aug	160.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.10	0.10	1.26	
moma										
TOTALS							0.70	0.70	2.89	0.53

Table 32.D Estimated costs for field operations, per acre Clearfield straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT COST-	- -		FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR LE	ASE INTER	TOTAL	COST	COST
					doll	ars			
Soil Test	acre	3.33				0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60	0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08	0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00				0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24				0.17	6.41		6.41
2,4-D Amine 4	pt	4.50				0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90	0.14	6.97	7.12	14.09
Rice Seed Clearfield		62.40	1.03	2.01	2.30	1.25	63.65	,,,,,	63.65
Rice Seed Trt/Insect		18.85				0.38	19.23		19.23
Roller/Cultipacker	30'	10.00	0.88	0.53	1.39	0.06	2.86	2.43	5.29
App by Air (5 gal)		7.00	0.00	0.00	1.00	0.14	7.14	2.10	7.14
		4.16				0.08	4.24		4.24
Glyphosate 31bs a.e									
Command 3ME	pt	18.17				0.36	18.53		18.53
Sharpen	OZ	12.08				0.24	12.32		12.32
MSO	pt	1.20				0.02	1.22		1.22
Class Act NG	pt	0.88				0.02	0.90		0.90
Seed Levees									
Rice Seed CF(Levees)	lb	11.52				0.23	11.75		11.75
Rice Seed Trt/Insect	lbseed	3.48				0.07	3.55		3.55
App by Air (5 gal)	appl	7.00				0.14	7.14		7.14
Clearpath	OZ	36.10				0.72	36.82		36.82
Crop Oil Conc.(Pet.)	pt	5.72				0.11	5.83		5.83
App Fert by Air	cwt	7.50				0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33				0.16	9.49		9.49
DAP	cwt	10.50				0.18	10.68		10.68
Rice Consultant	acre	8.00				0.13	8.13		8.13
App Fert by Air	cwt	18.75				0.31	19.06		19.06
	cwt	49.35				0.82	50.17		50.17
NBPT	pt	8.30				0.14	8.44		8.44
App by Air (10 gal)	appl	9.00				0.15	9.15		9.15
Newpath	OZ	22.98				0.38	23.36		23.36
-		5.72				0.10	5.82		5.82
Crop Oil Conc.(Pet.)	pt						8.64		
Aim	OZ	8.50				0.14	0.04		8.64
Rice Management	1				0 01	0 00	0 02		0 00
RICE MGT. LABOR	hour	2 50			0.91	0.02	0.93		0.93
App by Air (5 gal)	appl	3.50				0.05	3.55		3.55
Clincher SF	OZ	16.95				0.23	17.18		17.18
MSO	pt	2.40				0.03	2.43		2.43
Rice Management									
RICE MGT. LABOR	hour				1.81	0.02	1.83		1.83
App Fert by Air	cwt	11.25				0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61				0.39	30.00		30.00
Rice Management									
RICE MGT. LABOR	hour				1.81	0.02	1.83		1.83
App by Air (5 gal)	appl	7.00				0.07	7.07		7.07
Flint Extra	OZ	41.74				0.42	42.16		42.16
Tilt 3.6 EC	OZ	7.60				0.08	7.68		7.68
Surfactant	pt	0.33					0.33		0.33
App by Air (3 gal)	appl	8.25				0.08	8.33		8.33
Warrior ZT	OZ	7.29				0.07	7.36		7.36
	02	7.23				0.07	7.50		7.50
Rice Management	1				1 01	0 01	1 00		1 00
RICE MGT. LABOR	hour		4 51	0.70	1.81	0.01	1.82	21 45	1.82
Header - Draper (SL)	25' Rigid		4.51		4.91	0.13	19.27		50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31		0.71	0.71	1.42
Handling & Storage									
HAND LABOR	hour				2.27	0.02	2.29		2.29
Haul Rice	bu	56.00				0.37			56.37
Dry Rice	bu	64.00				0.43			64.43
Disk Heavy	28'		2.68	3.45	4.22	0.03	10.38	11.52	21.90
Flood Irr.	acre	10.17	30.08	14.66	12.06	1.08	68.05	68.82	136.87
TOTALS		633.65	42.07	33.37	38.08 0	.00 11.24	758.41	132.47	890.88

Table 32.E Estimated monthly income and expense flows per acre Clearfield straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	70.51	31.48	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	96.25	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	9.90	2.72	3.62	3.62	10.32	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	9.50	7.48	7.48	7.48	5.11	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.31	8.01	2.10	2.10	10.14	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.47	2.95	1.02	0.86	0.97	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	227.91	179.09	77.93	86.27	146.54	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-227.91	-179.09	-77.93	-86.27	669.46	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-258.20	-437.29	-515.22	-601.49	67.97	57.59

^{*} Lease costs are based on hourly usage costs.

Table 32.F Estimated returns for various price/yield combinations, per acre Clearfield straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90 	95 BB	100	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35			6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-392 -524	-371 -504	-351 -483	-330 -463	-310 -442	-290 -422	-269 -402	-249 -381	-228 -361	-208 -340	-188 -320
60	96.00	bu	-342 -475	-318 -450	-293 -426	-269 -401	-244 -377	-220 -352	-196 -328	-171 -304	-147 -279	-122 -255	-98 -230
70	112.00	bu	-293 -426	-265 -397	-236 -369	-208 -340	-179 -312	-150 -283	-122 -254	-93 -226	-65 -197	-36 -169	-8 -140
80	128.00	bu	-244 -377	-212 -344	-179 -311	-146 -279	-114 -246	-81 -213	-48 -181	-16 -148	16 -116	49 -83	81 - 50
90	144.00	bu	-195 -328	-158 -291	-122 -254	-85 -217	-48 -181	-11 -144	24 -107	61 -70	98 -34	134 2	171 39
100	160.00	bu	-146 -278	-105 -238	-64 -197	-24 -156	16 -115	57 -74	98 -34	139 6	179 47	220 88	261 129
110	176.00	bu	-97 -229	-52 -184	-7 -140	37 -95	82 -50	127 -5	171 39	216 84	261 129	306 174	351 219
120	192.00	bu	-48 -180	0 -131	49 -82	98 -33	147 15	196 64	245 113	294 162	343 211	392 260	441 308
130	208.00	bu	0 -131	53 -78	107 -25	160 27	213 80	266 133	319 186	372 239	425 292	478 345	531 398
140	224.00	bu	50 -82	107 -25	164 31	221 88	278 146	335 203	392 260	449 317	507 374	564 431	621 488
150	240.00	bu	99 -33	160 27	221 89	282 150	343 211	405 272	466 333	527 395	588 456	649 517	711 578

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 33.A Estimated costs per acre Clearfield straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (10 gal)	appl appl	7.00 9.00	4.5000	31.50 9.00	
App by Air (3 gal) FERTILIZERS	appl	5.50	1.5000	8.25	
Amm Sulfate (21% N) DAP	cwt cwt	18.66 20.99	0.5000	9.33 10.50	
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	
NBPT FUNGICIDES	pt	11.06	0.7500	8.30	
Flint Extra Tilt 3.6 EC	OZ OZ	8.88 0.76	4.7000 10.0000	41.74 7.60	
HERBICIDES Glyphosate 31bs a.e	OZ	0.13	80.0000	10.40	
2,4-D Amine 4 Command 3ME	pt pt	2.25 18.17	2.0000	4.50 18.17	
Sharpen	OZ OZ	6.04 3.76	2.0000	12.08 36.10	
Clearpath Newpath	OZ OZ	3.83	6.0000	22.98	
Aim Clincher SF	OZ OZ	5.67 2.26	1.5000 7.5000	8.50 16.95	
INSECTICIDES Warrior ZT		2.43	3.0000	7.29	
SEED/PLANTS	OZ				
Rice Seed Clearfield Rice Seed Trt/Insect	lbseed	0.96 0.29	65.0000 77.0000	62.40 22.33	
Rice Seed CF(Levees) ADJUVANTS	lb	0.96	12.0000	11.52	
MSO Class Act NG	pt pt	2.40 1.75	1.5000	3.60 0.88	
Crop Oil Conc.(Pet.)	pt	2.86	4.0000	11.44	
Surfactant CUSTOM FERTILIZE	pt	3.30	0.1000	0.33	
App Fert by Air HAULING	cwt	7.50	5.0000	37.50	
Haul Rice DRYING	bu	0.35	160.0000	56.00	
Dry Rice CROP CONSULTANT	bu	0.40	160.0000	64.00	
Rice Consultant SOIL TEST	acre	8.00	1.0000	8.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters	hour hour	14.68 14.68	0.4228	6.20 2.58	
IRRIGATE LABOR Special Labor	hour	9.06	1.0500	9.53	
HAND LABOR	hour	9.06	0.2500	2.27	
Special Labor Implements	hour	9.06	0.0785	0.71	
RICE MGT. LABOR Special Labor	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR DIESEL FUEL	hour	14.69	0.5389	7.92	
Tractors Harvesters	gal gal	1.53 1.53	4.8970 2.9444	7.48 4.51	
Flood Irr. REPAIR & MAINTENANCE	gal	1.53	15.4779	23.68	
Implements	acre	8.40	1.0000	8.40	
Tractors Harvesters	acre acre	3.07 7.24	1.0000	3.07 7.24	
Flood Irr.	acre	11.80	1.0000	11.80	
INTEREST ON OP. CAP.	acre	10.84	1.0000	10.84	
TOTAL DIRECT EXPENSES FIXED EXPENSES				736.05	
Implements	acre	17.16	1.0000	17.16 18.77	
Tractors Harvesters	acre acre	18.77 27.72	1.0000	27.72	
Flood Irr.	acre	64.16	1.0000	64.16	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES				863.86	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 33.B Summary of estimated costs and returns per acre Clearfield straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	······
INCOME					
Rice	bu	5.10	160.0000	816.00	
TOTAL INCOME				816.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000		
HERBICIDES	acre	129.68	1.0000	129.68	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	96.25	1.0000	96.25	
ADJUVANTS	acre	16.25	1.0000	16.25	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	56.00	1.0000	56.00	
DRYING	acre	64.00	1.0000	64.00	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.0500		
OPERATOR LABOR	hour	14.68	0.5988	8.78	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	23.3194	35.67	
REPAIR & MAINTENANCE			1.0000	30.51	
INTEREST ON OP. CAP.	acre	10.84	1.0000	10.84	
TOTAL DIRECT EXPENSES			•	736.05	
RETURNS ABOVE DIRECT EXP	ENSES			79.95	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES				863.86	
RETURNS ABOVE TOTAL SPEC	IFIED	EXPENSES		-47.86	

Table 33.C Estimated resource use for field operations, per acre Clearfield straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

Roller/Cultipacker App by Air (5 gal) appl Glyphosate 3lbs a.e Command 3ME pt Sharpen oz MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) lb Rice Seed Trt/Insect lbs Rice Seed Trt/Insect lbs Rice Seed Trt/Insect lbs App by Air (5 gal) appl Clearpath cwt Crop Oil Conc. (Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Crop Oil Conc. (Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant		225	0.046 0.038 0.078 0.049	0.33 2.00 1.00 1.00 1.00 1.00 1.00	Apr Apr Apr	1.0000 48.0000 2.0000 65.0000 1.0000 2.0000 1.0000 2.0000 0.5000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000	0.09 0.03 0.07 0.04	0.09 0.03 0.07 0.04	0.09 0.03 0.15 0.04	0.08
Field Cultivate Fld 32' Harrow - Folding 40' App by Air (5 gal) appl Glyphosate 3lbs a.e 2,4-D Amine 4 pt Grain Drill 24' Rice Seed Clearfield Rice Seed Trt/Insect lbs Roller/Cultipacker 30' App by Air (5 gal) appl Glyphosate 3lbs a.e 02 Command 3ME pt Sharpen 02 MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) Rice Seed Trt/Insect App by Air (5 gal) appl Clearpath 02 Crop Oil Conc. (Pet.) pt App Fert by Air 02 cwt Amm Sulfate (21% N) DAP cwt Rice Consultant acre App Fert by Air 02 cwt Aim 02 Crop Oil Conc. (Pet.) pt Aim 02 Rice Management RICE MGT. LABOR how App by Air (5 gal) appl Clincher SF 02 mSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt Cwt MSO pt Rice Management RICE MGT. LABOR how App Fert by Air 02 cwt Cwt MSO Cw	MFWD MFWD eed MFWD	225	0.038	2.00 1.00 1.00 1.00 1.00 1.00 1.00	Oct Oct Feb Apr Apr Apr	1.0000 48.0000 2.0000 65.0000 65.0000 1.0000 2.0000 0.5000 0.5000 12.0000 1.0000 1.0000 2.0000 0.5000	0.03	0.03	0.03	0.03
Field Cultivate Fld 32' Harrow - Folding 40' App by Air (5 gal) appl Glyphosate 3lbs a.e 2,4-D Amine 4 pt Grain Drill 24' Rice Seed Clearfield Rice Seed Trt/Insect lbs Roller/Cultipacker 30' App by Air (5 gal) appl Glyphosate 3lbs a.e OZ Command 3ME pt Sharpen OZ MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) Rice Seed Trt/Insect App by Air (5 gal) appl Clearpath OZ Crop Oil Conc. (Pet.) pt App Fert by Air Amm Sulfate (21% N) DAP cwt App Fert by Air Cwt App by Air (10 gal) appl NBPT App by Air (10 gal) appl NBPT App by Air (10 gal) appl NBPT App by Air (5 gal) appl Clincher SF OZ Rice Management RICE MGT. LABOR App by Air (5 gal) appl Clincher SF MSO pt Rice Management RICE MGT. LABOR App Fert by Air Cwt App By Air (5 gal) Appl Flint Extra Tilt 3.6 EC Cwt App by Air (5 gal) Appl Cwt App Fert By Air Cwt Cwt Cwt App By Air (5 gal) Appl Cwt Appl Appl Cwt Appl Appl Appl Cwt Appl Appl Appl Cwt Appl Appl Appl Appl Appl Appl Appl App	MFWD MFWD eed MFWD	225	0.038	2.00 1.00 1.00 1.00 1.00 1.00 1.00	Oct Oct Feb Apr Apr Apr	1.0000 48.0000 2.0000 65.0000 65.0000 1.0000 2.0000 0.5000 0.5000 12.0000 1.0000 1.0000 2.0000 0.5000	0.03	0.03	0.03	0.03
Harrow - Folding App by Air (5 gal) appl Glyphosate 3lbs a.e 2,4-D Amine 4 pt Grain Drill Rice Seed Clearfield Rice Seed Trt/Insect Roller/Cultipacker App by Air (5 gal) appl Glyphosate 3lbs a.e Command 3ME pt Sharpen oz MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) lb Rice Seed Trt/Insect App by Air (5 gal) appl Clasrath cz Crop Oil Conc. (Pet.) App Fert by Air Amm Sulfate (21% N) cwt DAP cwt Rice Consultant App Fert by Air cwt Urea, Solid (46% N) NBPT App by Air (10 gal) appl Crop Oil Conc. (Pet.) pt Aim Crop Oil Conc. (Pet.) pt Aim RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant	MFWD MFWD eed MFWD	225	0.038	1.00 1.00 1.00 1.00 1.00 1.00	Oct Feb Apr Apr Apr Apr	48.0000 2.0000 65.0000 1.0000 32.0000 1.0000 2.0000 0.5000 12.0000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000	0.03	0.03	0.03	0.03
App by Air (5 gal) appl Glyphosate 3lbs a.e 2,4-D Amine 4 Grain Drill Rice Seed Clearfield Rice Seed Trt/Insect Roller/Cultipacker App by Air (5 gal) appl Glyphosate 3lbs a.e Command 3ME Sharpen MSO Class Act NG Seed Levees Rice Seed CF(Levees) Rice Seed Trt/Insect App by Air (5 gal) appl Clearpath Crop Oil Conc. (Pet.) App Fert by Air Amm Sulfate (21% N) DAP Rice Consultant App Fert by Air Cwt App by Air (10 gal) Newpath Crop Oil Conc. (Pet.) Aim RICE MGT. LABOR App by Air (5 gal) Clincher SF MSO Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Cwt Cwt Cxt Cxt MSO Rice Management RICE MGT. LABOR App Fert by Air Cwt Cxt Cxt Cxt Cxt Cxt MSO Rice Management RICE MGT. LABOR App Fert by Air Cwt Urea, Solid (46% N) Cxt Rice Management RICE MGT. LABOR App Fert by Air Cxt	MFWD eed MFWD	225	0.078	1.00 1.00 1.00 1.00 1.00	Apr Apr Apr Apr	48.0000 2.0000 65.0000 1.0000 32.0000 1.0000 2.0000 0.5000 12.0000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000	0.07	0.07	0.15	0.07
Glyphosate 3lbs a.e 2,4-D Amine 4 Grain Drill Rice Seed Clearfield Rice Seed Trt/Insect Roller/Cultipacker App by Air (5 gal) Glyphosate 3lbs a.e Command 3ME Sharpen MSO Class Act NG Seed Levees Rice Seed CF(Levees) Rice Seed Trt/Insect App by Air (5 gal) Clearpath Crop Oil Conc. (Pet.) App Fert by Air Amm Sulfate (21% N) DAP Rice Consultant App Fert by Air Urea, Solid (46% N) NBPT App by Air (10 gal) Newpath Crop Oil Conc. (Pet.) Aim Crop Oil Conc. (Pet.) Aim RICE MGT. LABOR App by Air (5 gal) Clincher SF MSO Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App by Air (5 gal) Appl Flint Extra Tilt 3.6 EC Oz Surfactant	eed MFWD			1.00 1.00 1.00 1.00	Apr Apr Apr	2.0000 65.0000 1.0000 32.0000 1.0000 2.0000 0.5000 0.5000 12.0000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				
Grain Drill Rice Seed Clearfield Rice Seed Trt/Insect Roller/Cultipacker App by Air (5 gal) Glyphosate 3lbs a.e Command 3ME Sharpen MSO Class Act NG Seed Levees Rice Seed CF(Levees) Rice Seed Trt/Insect App by Air (5 gal) Clearpath Crop Oil Conc. (Pet.) App Fert by Air Amm Sulfate (21% N) DAP Rice Consultant App Fert by Air Urea, Solid (46% N) NBPT App by Air (10 gal) Newpath Crop Oil Conc. (Pet.) Aim Crop Oil Conc. (Pet.) Aim Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App by Air (5 gal) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App by Air (5 gal) Appl Flint Extra Tilt 3.6 EC Oz Surfactant	eed MFWD			1.00 1.00 1.00 1.00	Apr Apr Apr	65.0000 65.0000 1.0000 32.0000 1.0000 0.5000 0.5000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				
Rice Seed Clearfield Rice Seed Trt/Insect 1bs Roller/Cultipacker 30' App by Air (5 gal) appl Glyphosate 3lbs a.e Command 3ME pt Sharpen oz MSO pt Class Act NG pt Class Act NG pt Seed Levees Rice Seed CF(Levees) Rice Seed Trt/Insect App by Air (5 gal) appl Clearpath corpo Oil Conc. (Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt App Fert by Air cwt Amm Sulfate (21% N) cwt App Fert by Air cwt Amm Sulfate (21% N) cwt App Fert by Air cwt Arm Sulfate (21% N) cwt App Fert by Air cwt Crop Oil Conc. (Pet.) pt Aim crop by Air (5 gal) appl Clincher SF crop Consultant RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF crop Consultant RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra coz Tilt 3.6 EC coz Surfactant pt	eed MFWD			1.00 1.00 1.00 1.00	Apr Apr Apr	1.0000 32.0000 1.0000 2.0000 0.5000 0.5000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				0.07
Rice Seed Trt/Insect Roller/Cultipacker 30' App by Air (5 gal) appl Glyphosate 3lbs a.e Command 3ME pt Sharpen oz MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) lb Rice Seed Trt/Insect App by Air (5 gal) appl Clearpath oz Crop Oil Conc.(Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt App Fert by Air cwt Urea, Solid (46% N) cwt NBPT App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant	MFWD	225	0.049	1.00	Apr Apr Apr	1.0000 32.0000 1.0000 2.0000 0.5000 0.5000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000	0.04	0.04	0.04	0.04
Roller/Cultipacker App by Air (5 gal) appl Glyphosate 31bs a.e Command 3ME pt Sharpen oz MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) lb Rice Seed Trt/Insect App by Air (5 gal) appl Clearpath crop Oil Conc. (Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT App by Air (10 gal) appl Crop Oil Conc. (Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant	MFWD	225	0.049	1.00	Apr Apr Apr	1.0000 32.0000 1.0000 2.0000 0.5000 0.5000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000	0.04	0.04	0.04	0.04
App by Air (5 gal) appl Glyphosate 3lbs a.e Command 3ME Sharpen MSO Class Act NG Seed Levees Rice Seed CF(Levees) Rice Seed Trt/Insect App by Air (5 gal) Clearpath Crop Oil Conc. (Pet.) App Fert by Air Amm Sulfate (21% N) DAP Rice Consultant App Fert by Air Urea, Solid (46% N) NBPT App by Air (10 gal) Newpath Crop Oil Conc. (Pet.) Aim RICE MGT. LABOR App by Air (5 gal) Clincher SF MSO Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Cwt MSO Rice Management RICE MGT. LABOR App Fert by Air Cwt Urea, Solid (46% N) Cwt Rice Management RICE MGT. LABOR App Fert by Air Cwt Urea, Solid (46% N) Cwt Rice Management RICE MGT. LABOR App Fert by Air Cwt Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Cwt Cwt Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Cwt Cwt Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Cwt Urea, Solid (46% N) Rice Management RICE MGT. LABOR App by Air (5 gal) Appl Flint Extra Tilt 3.6 EC Cy Surfactant	eed	225	0.049	1.00	Apr Apr Apr	32.0000 1.0000 2.0000 0.5000 12.0000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000	0.04	0.04	0.04	0.04
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Command 3ME pt Sharpen oz MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) lb Rice Seed Trt/Insect lbs App by Air (5 gal) appl Clearpath oz Crop Oil Conc. (Pet.) pt App Fert by Air acre App Fert by Air cwt acre App Fert by Air cwt Wice Consultant acre App Fert by Air cwt WhBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc. (Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Wice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00	Apr	1.0000 2.0000 0.5000 0.5000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				
Sharpen oz MSO pt Class Act NG pt Seed Levees Rice Seed CF(Levees) lb Rice Seed Trt/Insect lbs App by Air (5 gal) oz Crop Oil Conc. (Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt App Fert by Air cwt App by Air (10 gal) appl Newpath cz Crop Oil Conc. (Pet.) pt Aim cz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF cz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra cz Tilt 3.6 EC cz Surfactant				1.00	Apr	2.0000 0.5000 0.5000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				
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Seed Levees Rice Seed CF(Levees) lb Rice Seed Trt/Insect lbs Rice Seed Trt/Insect lbs App by Air (5 gal) appl Clearpath oz Crop Oil Conc.(Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00	Apr	12.0000 12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				
Rice Seed CF(Levees) lb Rice Seed Trt/Insect lbs Rice Seed Trt/Insect lbs App by Air (5 gal) appl Clearpath oz Crop Oil Conc.(Pet.) pt App Fert by Air cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00	Apr	12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				
Rice Seed Trt/Insect lbs App by Air (5 gal) appl Clearpath oz Crop Oil Conc.(Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00	_	12.0000 1.0000 9.6000 2.0000 1.0000 0.5000				
App by Air (5 gal) appl Clearpath oz Crop Oil Conc.(Pet.) pt App Fert by Air cwt Amm Sulfate (21% N) cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00	_	1.0000 9.6000 2.0000 1.0000 0.5000				
Clearpath Crop Oil Conc.(Pet.) App Fert by Air Amm Sulfate (21% N) DAP Rice Consultant App Fert by Air Urea, Solid (46% N) NBPT App by Air (10 gal) Newpath Crop Oil Conc.(Pet.) Aim RICE MGT. LABOR App by Air (5 gal) Clincher SF MSO Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Cot MSO Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Cot Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App Fert by Air Urea, Solid (46% N) Rice Management RICE MGT. LABOR App by Air (5 gal) Appli Flint Extra Tilt 3.6 EC Oz Surfactant					May	2.0000 1.0000 0.5000				
App Fert by Air cwt Amm Sulfate (21% N) cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc. (Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant					May	1.0000 0.5000				
Amm Sulfate (21% N) cwt DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant					May	0.5000				
DAP cwt Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Cute Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Cz Surfactant				1.00						
Rice Consultant acre App Fert by Air cwt Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00		N 5000				
App Fert by Air cwt Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00		0.5000				
Urea, Solid (46% N) cwt NBPT pt App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant					May	1.0000				
NBPT App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air oct Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant				1.00	May	2.5000				
App by Air (10 gal) appl Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App Fert by Air oz LYPEA SOLID (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant						2.5000				
Newpath oz Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra cz Tilt 3.6 EC oz Surfactant pt				1 00	M	0.7500				
Crop Oil Conc.(Pet.) pt Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt				1.00	мау	1.0000				
Aim oz Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt						6.0000 2.0000				
Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt						1.5000				
RICE MGT. LABOR how apply Air (5 gal) apply Clincher SF oz MSO pt Rice Management RICE MGT. LABOR how App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR how App by Air (5 gal) apply Flint Extra oz Tilt 3.6 EC oz Surfactant pt				1.00	May	1.3000				
App by Air (5 gal) appl Clincher SF oz MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt	r			1.00	ria y				0.10	
Clincher SF oz MSO pt MSO pt Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt				0.50	Jun	0.5000				
Rice Management RICE MGT. LABOR hou App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra Tilt 3.6 EC oz Surfactant pt						7.5000				
RICE MGT. LABOR how cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR how App by Air (5 gal) appl Flint Extra Oz Tilt 3.6 EC Oz Surfactant pt						1.0000				
App Fert by Air cwt Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt				1.00	Jun					
Urea, Solid (46% N) cwt Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt	r								0.20	
Rice Management RICE MGT. LABOR hou App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt				1.00	Jun	1.5000				
RICE MGT. LABOR how App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt						1.5000				
App by Air (5 gal) appl Flint Extra oz Tilt 3.6 EC oz Surfactant pt				1.00	Jul					
Flint Extra oz Tilt 3.6 EC oz Surfactant pt	r			1 00		1 0000			0.20	
Tilt 3.6 EC oz Surfactant pt				1.00	Jul	1.0000				
Surfactant pt						4.7000 10.0000				
=						0.1000				
App by Air (3 gal) appl				1.50	.T11]	1.5000				
Warrior ZT oz				1.00	our	3.0000				
Rice Management				1.00	Aua	2.0000				
RICE MGT. LABOR hou	r				5				0.20	
Header - Draper (SL) 25' R		hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice 700 b		_	0.055		Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR hou									0.25	
Haul Rice bu	u MFWD			1.00	Aug	160.0000				
Dry Rice bu	u MFWD				Aug	160 0000				
Disk Heavy 28'	u MFWD			1.00	_	160.0000			0.15	0 1 2
Flood Irr. acre	u MFWD	225	0.075		Sep		0.15	0.15		0.13
TOTALS	u MFWD	225	0.075		_	1.0000	0.15	0.15	1.05	0.13

Table 33.D Estimated costs for field operations, per acre Clearfield straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT COST				FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR L	EASE	INTER	TOTAL	COST	COST
					dol	lars				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Clearfield		62.40					1.25	63.65		63.65
Rice Seed Trt/Insect		18.85					0.38	19.23		19.23
Roller/Cultipacker	30'	10.00	0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00	0.00	0.00	1.03		0.14	7.14	2.10	7.14
Glyphosate 31bs a.e		4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
	-	12.08					0.24	12.32		12.32
Sharpen	OZ									
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees										
Rice Seed CF(Levees)	lb	11.52					0.23	11.75		11.75
Rice Seed Trt/Insect	lbseed	3.48					0.07	3.55		3.55
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Clearpath	OZ	36.10					0.72	36.82		36.82
Crop Oil Conc.(Pet.)	pt	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Newpath	OZ	22.98					0.38	23.36		23.36
Crop Oil Conc.(Pet.)	pt	5.72					0.10	5.82		5.82
Aim	OZ	8.50					0.14	8.64		8.64
Rice Management	02	0.00					0.11	0.01		0.01
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
	_	3.50			0.51		0.05	3.55		3.55
App by Air (5 gal) Clincher SF	appl	16.95					0.03	17.18		17.18
	OZ						0.03			
MSO	pt	2.40					0.03	2.43		2.43
Rice Management	1				1 01		0 00	1 00		1 00
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	OZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13		31.45	
Grain Cart Rice	700 bu		0.19	0.21	0.31		J • ± J	0.71	0.71	1.42
Handling & Storage	,00 Du		∪ • ± ⊅	∪•∠⊥	∪•J±			0./1	U . / 1	1.42
=	h a				2 27		0 00	2 20		2 22
HAND LABOR	hour	F 6 0 0			2.27		0.02	2.29		2.29
Haul Rice	bu	56.00					0.37			56.37
Dry Rice	bu	64.00					0.43			64.43
Disk Heavy	28'		2.68	3.45	4.22		0.03			21.90
Flood Irr.	acre		23.68	11.80	9.53		0.68			109.85
TOTALS		623.48	35.67		35.55	0.00	10 84		127.81	963 96
TOTALO		043.48	22.01	30.51	٠٠.٠٠	0.00	10.04	150.05	171.07	003.86

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}\ \text{year}\,.$

Table 33.E Estimated monthly income and expense flows per acre Clearfield straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	816.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	70.51	31.48	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	96.25	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	7.01	3.18	4.08	4.08	9.30	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	7.26	6.23	6.23	6.23	4.70	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	4.31	7.46	1.55	1.55	9.93	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.14	2.93	1.00	0.84	0.96	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	211.28	177.73	76.57	84.91	144.89	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-211.28	-177.73	-76.57	-84.91	671.11	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-241.57	-419.30	-495.87	-580.78	90.33	79.95

^{*} Lease costs are based on hourly usage costs

Table 33.F Estimated returns for various price/yield combinations, per acre Clearfield straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90 	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35			6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	80.00	bu	-369 -497	-349 -477	-328 -456	-308 -436	-288 -415	-267 -395	-247 -375	-226 -354	-206 -334	-186 -313	-165 -293
60	96.00	bu	-320 -448	-296 -423	-271 -399	-247 -374	-222 -350	-198 -325	-173 -301	-149 -276	-124 -252	-100 -228	-75 -203
70	112.00	bu	-271 -399	-242 -370	-214 -342	-185 -313	-157 -284	-128 -256	-100 -227	-71 -199	-42 -170	-14 -142	14 -113
80	128.00	bu	-222 -350	-189 -317	-157 -284	-124 -252	-91 -219	-59 -186	-26 -154	6 -121	38 -88	71 -56	104 -23
90	144.00	bu	-173 -300	-136 -264	-99 -227	-63 -190	-26 -154	10 -117	47 -80	83 -43	120 -7	157 29	194 66
100	160.00	bu	-124 -251	-83 -211	-42 -170	-1 -129	39 -88	79 -47	120 -7	161 33	202 74	243 115	283 156
110	176.00	bu	-74 -202	-30 -157	14 -112	59 -68	104 -23	149 21	194 66	239 111	284 156	328 201	373 246
120	192.00	bu	-25 -153	23 -104	72 -55	121 -6	170 42	218 91	267 140	316 189	365 238	414 287	463 335
130	208.00	bu	23 -104	76 -51	129 1	182 54	235 107	288 160	341 213	394 266	447 319	500 372	553 425
140	224.00	bu	72 -55	129 1	186 58	243 115	300 173	358 230	415 287	472 344	529 401	586 458	643 515
150	240.00	bu	121 -6	182 54	243 116	305 177	366 238	427 299	488 360	549 422	611 483	672 544	733 605

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 34.A Estimated costs per acre Fullpage hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY App by Air (5 gal) App by Air (10 gal) App by Air (3 gal)	appl appl appl	7.00 9.00 5.50	3.5000 1.0000 1.5000	24.50 9.00 8.25	
FERTILIZERS Amm Sulfate (21% N) DAP Urea, Solid (46% N) NBPT	cwt cwt cwt pt	18.66 20.99 19.74 11.06	0.5000 0.5000 3.3220 0.8000	9.33 10.50 65.58 8.85	
HERBICIDES Glyphosate 3lbs a.e 2,4-D Amine 4 Command 3ME Sharpen Preface Facet L Aim Clincher SF INSECTICIDES	oz pt pt oz oz pt oz oz	0.13 2.25 18.17 6.04 4.05 14.57 5.67 2.26	80.0000 2.0000 1.0000 2.0000 11.0000 2.0000 1.5000 7.5000	10.40 4.50 18.17 12.08 44.55 29.14 8.50 16.95	
Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Fullpage Hyb Tr Rice Seed FPH(Levee) Rice Seed Trt/Insect ADJUVANTS	lb	6.97 2.67 0.29	23.0000 4.2500 4.2500	160.31 11.35 1.23	
MSO Class Act NG Crop Oil Conc.(Pet.) CUSTOM FERTILIZE	pt pt pt	2.40 1.75 2.86	1.5000 0.5000 4.0000	3.60 0.88 11.44	
App Fert by Air HAULING	cwt	7.50	4.3220	32.42	
Haul Rice	bu	0.35	180.0000	63.00	
DRYING Dry Rice	bu	0.40	180.0000	72.00	
SURVEY & MARK LEVEES Survey & Mark Levees	acre	4.50	1.0000	4.50	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors Harvesters IRRIGATE LABOR	hour hour	14.68 14.68	0.5475 0.1760	8.03 2.58	
Special Labor HAND LABOR	hour	9.06	3.5250	31.96	
Special Labor Implements RICE MGT. LABOR	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
Special Labor UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
Tractors Harvesters Flood Irr. REPAIR & MAINTENANCE	gal gal gal	1.53 1.53 1.53	5.9886 2.9444 26.8827	9.16 4.51 41.14	
Implements Tractors Harvesters Flood Irr. INTEREST ON OP. CAP.	acre acre acre acre	8.59 3.69 7.24 14.31 12.78	1.0000 1.0000 1.0000 1.0000	8.59 3.69 7.24 14.31 12.78	
TOTAL DIRECT EXPENSES				820.87	
FIXED EXPENSES Implements Tractors Harvesters Flood Irr.	acre acre acre acre	18.06 22.58 27.72 42.08	1.0000 1.0000 1.0000 1.0000	18.06 22.58 27.72 42.08	
TOTAL FIXED EXPENSES				110.44	
TOTAL SPECIFIED EXPENSES				931.31	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 34.B Summary of estimated costs and returns per acre Fullpage hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	180.0000	918.00	
TOTAL INCOME				918.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	41.75	1.0000	41.75	
FERTILIZERS	acre	94.26	1.0000	94.26	
HERBICIDES	acre	144.29	1.0000	144.29	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	172.89	1.0000	172.89	
ADJUVANTS	acre	15.92	1.0000	15.92	
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41	
HAULING	acre	63.00		63.00	
DRYING	acre	72.00	1.0000	72.00	
SURVEY & MARK LEVEES	acre	4.50	1.0000	4.50	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	3.5250	31.96	
OPERATOR LABOR	hour	14.68	0.7235	10.61	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
		14.69	0.5389		
	gal		35.8158		
REPAIR & MAINTENANCE	acre	33.83	1.0000	33.83	
INTEREST ON OP. CAP.	acre	12.78	1.0000	12.78	
TOTAL DIRECT EXPENSES			•	820.87	
RETURNS ABOVE DIRECT EXE	PENSES			97.13	
TOTAL FIXED EXPENSES				110.44	
TOTAL SPECIFIED EXPENSES	S		•	931.31	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-13.31	

Table 34.C Estimated resource use for field operations, per acre Fullpage hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

Harrow - Foldsing	OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE		TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
Field Cultivate Fild 32'									ho	urs	
Harrow - Foldsing	Soil Test	acre			0.33	Oct	0.3330				
App Dy Air (5 gal) Carry	Field Cultivate Fld	32 '	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Clyphosate 3lbs a.e	Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
24					1.00	Feb					
Grein Drill Rice Fullpage Hybr T 10 Roller/Gultipacker	==										
Rice Fullpage Myb Tr 15	•	-	MEMD 33E	0 070	1 00	7. 22. 25	2.0000	0 07	0 07	0 15	0.07
Roller/Cultipacker 30' MPWD 225 0.049 1.00 Apr 0.04			MrwD 223	0.076	1.00	Apr	23 0000	0.07	0.07	0.13	0.07
App by Air (5 gal) appl pt			MFWD 225	0 049	1 00	Δnr	23.0000	0 04	0 04	0 04	0.04
Glyphosate 31hs a.e	-	_	111 110 220	0.013		_	1.0000	0.01	0.01	0.01	0.01
Command 3ME											
Sharpen											
Class Act NG	Sharpen	ΟZ					2.0000				
Seed Levees Rice Seed FPH(Levee) Beed Rice Seed FPH(Levee) Beed Rice Seed FPH(Levee) Beed Rice Seed FPH(Levee) Beed Rice Seed Trt/Insect Beed Rice Seed Trt/Insect Rice Seed Trt/Insect Beed Rice Seed Trt/Insect Rice Seed	MSO	pt					0.5000				
Rice Seed FPH(Levee) 1b 4.2500 App by Air (5 gal) appl 1.00 Apr 1.0000 Freface oz 5.0000 5.0000 Feface 1.000 Feface 2.0000 Facet L pt 2.0000 App Fert by Air 2.0000 App Fert by Air 0.5000 Fert by Air 0.5000 Fert by Air 0.5000 Fert by Air Cwt 0.5000 Fert by Air (10 gal) App Hor (10	Class Act NG	pt					0.5000				
Rice Seed Trt/Insect Ibseed	Seed Levees				1.00	Apr					
App by Air (5 gal)											
Preface					1 00	_					
Facel L					1.00	Apr					
Crop Oil Conc.(Pet.)											
App Fert by Air Cwt		_									
Amm Sulfate (21% N)	-	=			1 00	Mass					
DAP	= =				1.00	may					
Rice Consultant acre											
App Fert by Air Cwt 1.00 May 2.6700 2.6700					1.00	Mav					
NBPT						-					
App by Air (10 gal) appl	Urea, Solid (46% N)	cwt				=	2.6700				
Preface	NBPT	pt					0.8000				
Crop Oil Conc.(Pet.) pt		appl			1.00	May					
Aim oz 1.5000 Rice Management											
RICE MGT. LABOR hour App by Air (5 gal) appl 0.50 Jun 0.5000 Clincher SF oz 7.5000 MSO pt 1.0000 RICE MGT. LABOR hour RICE MGT. LABOR pt 1.000 Jun 0.5000 RICE MGT. LABOR hour RICE MGT. LABOR hour App Fert by Air cwt 1.00 Jun 0.6520 Urea, Solid (46% N) cwt 0.6520 RICE MGT. LABOR hour RICE MGT. LABOR hour App Part (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	-	-									
RICE MGT. LABOR hour appl Air (5 gal) appl 0.50 Jun 0.5000		OZ			1 00	Marr	1.5000				
App by Air (5 gal) appl 0.50 Jun 0.5000 7.5000 7.5000 8000 9t 7.5000 1.0000 8000 8000 9t 7.5000 1.0000 8000 9t 7.5000 1.0000 8000 8000 9t 7.5000 9t 7.50000 9t 7.5000	=	hour			1.00	мау				0 10	
Clincher SF		_			0.50	Jun	0.5000			0.10	
MSO					0.50	Oun					
Rice Management RICE MGT. LABOR hour App Fert by Air cwt 1.00 Jun 0.6520 Urea, Solid (46% N) cwt 0.6520 Rice Management RICE MGT. LABOR hour RICE MGT. LABOR hour App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 1.00 Aug RICE MGT. LABOR hour RICE MGT. LAB											
RICE MGT. LABOR hour cwt 1.00 Jun 0.6520 Urea, Solid (46% N) cwt 0.6520 Rice Management RICE MGT. LABOR hour 0.6520 App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 Rice Management RICE MGT. LABOR hour 0.20 Reader - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.17 0.17 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 0.01 Handling & Storage HAND LABOR hour 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Dry Rice Du 1.00 Aug 180.0000		r			1.00	Jun					
Urea, Solid (46% N)	2	hour								0.20	
Rice Management RICE MGT. LABOR hour App by Air (3 gal) appl appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 Rice Management RICE MGT. LABOR hour RICE MGT. LABOR hour RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug Handling & Storage HAND LABOR hour HAND LABOR hour But the storage hand Rice bu 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.5 Flood Irr. acre Jan 1.0000 0.12 0.12 3.64	App Fert by Air	cwt			1.00	Jun	0.6520				
RICE MGT. LABOR hour App by Air (3 gal) appl	Urea, Solid (46% N)	cwt					0.6520				
App by Air (3 gal) appl 1.50 Jul 1.5000 Warrior ZT oz 3.0000 Rice Management RICE MGT. LABOR hour 0.20 Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.17 0. Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 0. Handling & Storage 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.5 Flood Irr. acre Jan 1.0000 0.12 0.12 3.64	Rice Management				1.00	Jul					
Warrior ZT oz 3.0000 Rice Management RICE MGT. LABOR hour 0.20 Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.17 0. Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 0. Handling & Storage 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.5 Flood Irr. acre Jan 1.0000 0.12 0.12 3.64										0.20	
Rice Management RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.17 0. Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 0. Handling & Storage 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15					1.50	Jul					
RICE MGT. LABOR hour Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0.0 Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 0. Handling & Storage 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0.5 Flood Irr. acre Jan 1.0000 0.12 0.12 3.64		ΟZ			1 00		3.0000				
Header - Draper (SL) 25' Rigid 325 hp 0.176 1.00 Aug 0.17 0.17 0.17 0. Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0.01 0. Handling & Storage HAND LABOR hour 0.25	-	hour			1.00	Aug				0 20	
Grain Cart Rice 700 bu MFWD 225 0.055 0.20 Aug 0.01 0.01 0.01 0. Handling & Storage 1.00 Aug 0.25			325 hn	0 176	1 00	7,110		0 17	0 17		0.15
Handling & Storage HAND LABOR hour Haul Rice bu Dry Rice bu Disk Heavy 28' MFWD 225 0.075 2.00 Sep Flood Irr. Handling & Storage 1.00 Aug 180.0000 1.00 Aug 180.0000 2.015 0.15 0.15 0.15 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.		-				_					0.13
HAND LABOR hour 0.25 Haul Rice bu 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0. Flood Irr. acre Jan 1.0000 0.12 0.12 3.64		700 Du	MIND ZZJ	0.000		_		0.01	0.01	0.01	0.00
Haul Rice bu 1.00 Aug 180.0000 Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0. Flood Irr. acre Jan 1.0000 0.12 0.12 3.64	=	hour				9				0.25	
Dry Rice bu 1.00 Aug 180.0000 Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0. Flood Irr. acre Jan 1.0000 0.12 0.12 3.64					1.00	Aug	180.0000				
Disk Heavy 28' MFWD 225 0.075 2.00 Sep 0.15 0.15 0.15 0. Flood Irr. Jan 1.0000 0.12 0.12 3.64						_					
Flood Irr. acre Jan 1.0000 0.12 0.12 3.64	=		MFWD 225	0.075		_		0.15	0.15	0.15	0.13
TOTALS 0.72 0.72 5.27 0.	Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	
U.72 U.72 5.27 U.	momat c							0.70	0.70	·	0.53
	TOTATO							0.12	0.12	J • Z I	0.33

Table 34.D Estimated costs for field operations, per acre Fullpage hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

	SIZE/					OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
0-11		2 22					0 12	2 46		2 46
Soil Test Field Cultivate Fld	acre 32'	3.33	1.65	1.69	2.60		0.13	3.46 6.18	8.28	3.46 14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.24	2.43	2.14	4.57
App by Air (5 gal)		7.00	0.09	0.57	1.00		0.19	7.19	2.14	7.19
Glyphosate 31bs a.e	appl oz	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'	4.50	1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Fullpage Hyb Tr		160.31	1.00	2.01	2.50		3.21	163.52	, • ± 2	163.52
Roller/Cultipacker	30'	100.01	0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00	0.00	0.00	1.00		0.14	7.14	2.15	7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees	1 -									
Rice Seed FPH(Levee)	lb	11.35					0.23	11.58		11.58
Rice Seed Trt/Insect	lbseed	1.23					0.02	1.25		1.25
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Preface	ΟZ	20.25					0.41	20.66		20.66
Facet L	pt	29.14					0.58	29.72		29.72
Crop Oil Conc.(Pet.)	pt	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	20.02					0.33	20.35		20.35
Urea, Solid (46% N)	cwt	52.71					0.88	53.59		53.59
NBPT	pt	8.85					0.15	9.00		9.00
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Preface	OZ	24.30					0.41	24.71		24.71
Crop Oil Conc.(Pet.)	=	5.72					0.10	5.82		5.82
Aim	ΟZ	8.50					0.14	8.64		8.64
Rice Management	,				0 01		0 00	0 00		0 00
RICE MGT. LABOR	hour	2 50			0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management	la a				1 01		0 00	1 00		1 02
RICE MGT. LABOR	hour	4 00			1.81		0.02	1.83		1.83
App Fert by Air	cwt	4.89					0.07	4.96		4.96
Urea, Solid (46% N)	cwt	12.87					0.17	13.04		13.04
Rice Management RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (3 gal)	appl	8.25			1.01		0.02	8.33		8.33
Warrior ZT	oz Oz	7.29					0.03	7.36		7.36
Rice Management	02	1.23					0.07	7.50		7.30
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31		0.13	0.71	0.71	1.42
Handling & Storage	700 20		0.15	0.21	0.01			0.71	0.71	1.12
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	63.00					0.42			63.42
Dry Rice	bu	72.00					0.48			72.48
Disk Heavy	28 '	. 2 • 0 0	2.68	3.45	4.22		0.03		11.52	
Flood Irr.	acre	4.50	42.82	15.12	33.79		1.47	97.70	46.79	
TOTALS		659.64	54.81	33.83	59.81	0.00	12.78	820.87	110.44	931.31

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}\ \text{year}.$

Table 34.E Estimated monthly income and expense flows per acre Fullpage hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	83.80	32.80	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	172.89	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	16.10	7.71	8.61	8.61	10.88	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.81	11.22	11.22	11.22	5.32	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.10	8.20	2.29	2.29	10.24	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	6.29	3.22	0.84	0.38	1.08	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	321.29	194.78	63.57	38.04	162.52	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-321.29	-194.78	-63.57	-38.04	755.48	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-351.58	-546.36	-609.93	-647.97	107.51	97.13

^{*} Lease costs are based on hourly usage costs.

Table 34.F Estimated returns for various price/yield combinations, per acre Fullpage hybrid contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100 ODUCT PRIC	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	90.00	bu	-408 -519	-385 -496	-362 -473	-339 -450	-316 -427	-293 -404	-270 -381	-248 -358	-225 -335	-202 -312	-179 -289
60	108.00	bu	-353 -463	-325 -436	-298 -408	-270 -381	-243 -353	-215 -326	-188 -298	-160 -271	-133 -243	-105 -215	-78 -188
70	126.00	bu	-298 -408	-266 -376	-233 -344	-201 -312	-169 -280	-137 -247	-105 -215	-73 -183	-41 -151	-8 -119	23 -87
80	144.00	bu	-242 -353	-206 -316	-169 -279	-132 -243	-96 -206	-59 -169	-22 -133	14 -96	50 -59	87 -22	124 13
90	162.00	bu	-187 -298	-146 -256	-105 -215	-63 -174	-22 -132	18 -91	60 -50	101 -8	142 32	184 73	225 115
100	180.00	bu	-132 -242	-86 -196	-40 -151	5 -105	51 -59	97 -13	143 32	188 78	234 124	280 170	326 216
110	198.00	bu	-77 -187	-26 -137	23 -86	74 -36	124 14	175 64	225 115	276 165	326 216	377 266	427 317
120	216.00	bu	-21 -132	33 -77	88 -22	143 32	198 88	253 143	308 198	363 253	418 308	473 363	528 418
130	234.00	bu	33 -77	93 -17	152 42	212 101	272 161	331 221	391 280	451 340	510 400	570 460	630 519
140	252.00	bu	88 -21	152 42	217 106	281 171	345 235	409 299	474 363	538 428	602 492	667 556	731 620
150	270.00	bu	143 33	212 102	281 171	350 240	419 308	488 377	557 446	625 515	694 584	763 653	832 721

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 35.A Estimated costs per acre Fullpage hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY		YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (10 gal) App by Air (3 gal) FERTILIZERS	appl appl appl	7.00 9.00 5.50	3.5000 1.0000 1.5000	24.50 9.00 8.25	
Amm Sulfate (21% N) DAP Urea, Solid (46% N) NBPT	cwt cwt cwt pt	18.66 20.99 19.74 11.06	0.5000 0.5000 3.3220 0.8000	9.33 10.50 65.58 8.85	
HERBICIDES Glyphosate 3lbs a.e 2,4-D Amine 4 Command 3ME Sharpen Preface Facet L Aim	oz pt pt oz oz pt	0.13 2.25 18.17 6.04 4.05 14.57	80.0000 2.0000 1.0000 2.0000 11.0000 2.0000	10.40 4.50 18.17 12.08 44.55 29.14	
Clincher SF INSECTICIDES	OZ OZ	5.67 2.26	1.5000 7.5000	8.50 16.95	
Warrior ZT SEED/PLANTS	OZ	2.43	3.0000	7.29	
Rice Fullpage Hyb Tr Rice Seed FPH(Levee) Rice Seed Trt/Insect ADJUVANTS	lb	6.97 2.67 0.29	23.0000 4.2500 4.2500	160.31 11.35 1.23	
MSO Class Act NG Crop Oil Conc.(Pet.)	pt pt pt	2.40 1.75 2.86	1.5000 0.5000 4.0000	3.60 0.88 11.44	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	4.3220	32.42	
HAULING Haul Rice	bu	0.35	180.0000	63.00	
DRYING Dry Rice	bu	0.40	180.0000	72.00	
SURVEY & MARK LEVEES Survey & Mark Levees CROP CONSULTANT	acre	4.50	0.5000	2.25	
Rice Consultant SOIL TEST	acre	8.00	1.0000	8.00	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters IRRIGATE LABOR	hour hour	14.68 14.68	0.4999 0.1760	7.33 2.58	
Special Labor HAND LABOR	hour	9.06	2.3750	21.52	
Special Labor Implements RICE MGT. LABOR	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
Special Labor UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
Tractors Harvesters Flood Irr. REPAIR & MAINTENANCE	gal gal gal	1.53 1.53 1.53	5.5719 2.9444 21.9949	8.51 4.51 33.64	
Implements Tractors Harvesters Flood Irr. INTEREST ON OP. CAP.	acre acre acre acre	8.50 3.45 7.24 14.31 12.47	1.0000 1.0000 1.0000 1.0000 1.0000	8.50 3.45 7.24 14.31 12.47	
TOTAL DIRECT EXPENSES				798.69	
FIXED EXPENSES Implements Tractors Harvesters Flood Irr.	acre acre acre	17.65 21.12 27.72 64.81	1.0000 1.0000 1.0000	17.65 21.12 27.72 64.81	
TOTAL FIXED EXPENSES	acre	04.01	1.0000	131.30	
TOTAL SPECIFIED EXPENSES				929.99	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 35.B Summary of estimated costs and returns per acre Fullpage hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	180.0000	918.00	
TOTAL INCOME			-	918.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	41.75		41.75	
FERTILIZERS	acre		1.0000	94.26	
HERBICIDES	acre	144.29	1.0000	144.29	
INSECTICIDES	acre	7.29	1.0000		
SEED/PLANTS	acre	172.89	1.0000	172.89	
ADJUVANTS	acre	15.92	1.0000	15.92	
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41	
HAULING	acre	63.00	1.0000	63.00	
DRYING	acre	72.00	1.0000	72.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	2.3750		
OPERATOR LABOR	hour	14.68	0.6759	9.91	
RICE MGT. LABOR	hour	9.06	0.7000 0.5389	6.34	
UNALLOCATED LABOR	hour		0.5389	7.92	
DIESEL FUEL	gal	1.53	30.5114		
REPAIR & MAINTENANCE	acre		1.0000		
INTEREST ON OP. CAP.	acre	12.47	1.0000	12.47	
TOTAL DIRECT EXPENSES			-	798.69	
RETURNS ABOVE DIRECT EXE	PENSES			119.31	
TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES	S		-	929.99	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-11.99	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 35.C Estimated resource use for field operations, per acre Fullpage hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE		OVER	MTH		IMPLEMENT		LABOR	LABOR
								hoi	urs	
Coil most	2000			0 22	Oat	0 3330				
Soil Test Field Cultivate Fld	acre 32'	MFWD 225	0.046	0.33	Oct	0.3330	0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl	THE WD 225	0.050	1.00	Feb	1.0000	0.03	0.05	0.05	0.05
Glyphosate 3lbs a.e	OZ					48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr		0.07	0.07	0.15	0.07
Rice Fullpage Hyb Tr	lb					23.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	ΟZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt			1 00	7	0.5000				
Seed Levees Rice Seed FPH(Levee)	16			1.00	Apr	4 2500				
Rice Seed Frn(Levee) Rice Seed Trt/Insect						4.2500				
				1.00	7nr	4.2500 1.0000				
App by Air (5 gal) Preface	appl oz			1.00	API	5.0000				
Facet L	pt					2.0000				
Crop Oil Conc.(Pet.)	-					2.0000				
App Fert by Air	cwt			1.00	Mav	1.0000				
Amm Sulfate (21% N)	cwt			1.00	1101	0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	-	2.6700				
Urea, Solid (46% N)	cwt				-	2.6700				
NBPT	pt					0.8000				
App by Air (10 gal)	appl			1.00	May	1.0000				
Preface	OZ					6.0000				
Crop Oil Conc.(Pet.)	pt					2.0000				
Aim	OZ					1.5000				
Rice Management	_			1.00	May					
RICE MGT. LABOR	hour				_				0.10	
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt			1 00	Tun	1.0000				
Rice Management RICE MGT. LABOR	hour			1.00	Jun				0.20	
App Fert by Air	cwt			1.00	Jun	0.6520			0.20	
Urea, Solid (46% N)	cwt			1.00	oun	0.6520				
Rice Management	CWC			1.00	.T11]	0.0320				
RICE MGT. LABOR	hour			1.00	our				0.20	
App by Air (3 gal)	appl			1.50	.T11 T	1.5000			0.20	
Warrior ZT	OZ			1.00	041	3.0000				
Rice Management				1.00	Auσ					
RICE MGT. LABOR	hour				- 5				0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055		Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	180.0000				
Dry Rice	bu			1.00	Aug	180.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.07	0.07	2.45	
TOTALS							0.67	0.67	4.07	0.53

Table 35.D Estimated costs for field operations, per acre Fullpage hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/	SIZE/				חוספריי כי				FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollarg				
					(dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	ΟZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Fullpage Hyb Tr		160.31					3.21	163.52		163.52
Roller/Cultipacker	30'		0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36			18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees Rice Seed FPH(Levee)	lb	11 25					0.23	11 50		11.58
Rice Seed Frn(Levee) Rice Seed Trt/Insect		11.35 1.23					0.23	11.58		1.25
		7.00					0.02	7.14		7.14
App by Air (5 gal) Preface	appl oz	20.25					0.14	20.66		20.66
Facet L	pt	29.14					0.58	29.72		29.72
Crop Oil Conc.(Pet.)	-	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	20.02					0.33	20.35		20.35
Urea, Solid (46% N)	cwt	52.71					0.88	53.59		53.59
NBPT	pt	8.85					0.15	9.00		9.00
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Preface	OZ	24.30					0.41	24.71		24.71
Crop Oil Conc.(Pet.)		5.72					0.10	5.82		5.82
Aim	OZ	8.50					0.14	8.64		8.64
Rice Management										
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management	_									
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	cwt	4.89					0.07	4.96		4.96
Urea, Solid (46% N)	cwt	12.87					0.17	13.04		13.04
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	63.00					0.42			63.42
Dry Rice	bu	72.00					0.48			72.48
Disk Heavy	28'		2.68	3.45	4.22		0.03		11.52	21.90
Flood Irr.	acre	2.25	34.67	14.79	22.65		1.16	75.52	67.65	143.17
					40.55		10 15		101 05	
TOTALS		657.39	46.66	33.50	48.67	0.00	12.47	798.69	131.30	929.99

Table 35.E Estimated monthly income and expense flows per acre Fullpage hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	83.80	32.80	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	172.89	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	12.07	5.44	6.34	6.34	10.58	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.45	8.72	8.72	8.72	5.03	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.25	8.09	2.18	2.18	10.09	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	6.17	3.14	0.78	0.33	1.08	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	314.68	189.82	58.63	33.11	161.78	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-314.68	-189.82	-58.63	-33.11	756.22	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-344.97	-534.79	-593.42	-626.53	129.69	119.31

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

* Lease costs are based on hourly usage costs.

Table 35.F Estimated returns for various price/yield combinations, per acre Fullpage hybrid straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35			6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	90.00	bu	-386 -517	-363 -494	-340 -471	-317 -448	-294 -425	-271 -403	-248 -380	-225 -357	-202 -334	-179 -311	-156 -288
60	108.00	bu	-331 -462	-303 -434	-276 -407	-248 -379	-221 -352	-193 -324	-165 -297	-138 -269	-110 -242	-83 -214	-55 -187
70	126.00	bu	-275 -407	-243 -375	-211 -343	-179 -310	-147 -278	-115 -246	-83 -214	-51 -182	-18 -150	13 -118	45 -85
80	144.00	bu	-220 -352	-183 -315	-147 -278	-110 -241	-73 -205	-37 -168	-0 -131	36 -94	73 -58	109 -21	146 15
90	162.00	bu	-165 -296	-124 -255	-82 -214	-41 -172	-0 -131	41 -90	82 -48	123 -7	165 33	206 75	247 116
100	180.00	bu	-110 -241	-64 -195	-18 -149	27 -103	73 -57	119 -11	165 33	211 79	257 125	302 171	348 217
110	198.00	bu	-54 -186	-4 -135	46 -85	96 -34	147 15	197 66	248 116	298 167	348 217	399 268	449 318
120	216.00	bu	0 -130	55 -75	110 -20	165 34	220 89	275 144	330 199	385 254	440 309	496 364	551 419
130	234.00	bu	55 -75	115 -16	174 43	234 103	294 162	353 222	413 282	473 341	532 401	592 461	652 520
140	252.00	bu	110 -20	175 43	239 108	303 172	367 236	432 300	496 365	560 429	624 493	689 557	753 622
150	270.00	bu	166 34	234 103	303 172	372 241	441 310	510 379	579 447	648 516	716 585	785 654	854 723

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 36.A Estimated costs per acre Fullpage hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
	- - -	dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (10 gal)	appl appl	7.00 9.00	3.5000 1.0000	24.50	
App by Air (3 gal) FERTILIZERS	appl	5.50	1.5000	8.25	
Amm Sulfate (21% N) DAP	cwt cwt	18.66 20.99	0.5000 0.5000	9.33 10.50	
Urea, Solid (46% N) NBPT	cwt pt	19.74 11.06	3.3220 0.8000	65.58 8.85	
HERBICIDES Glyphosate 3lbs a.e	ΟZ	0.13	80.0000	10.40	
2,4-D Amine 4 Command 3ME	pt pt	2.25 18.17	2.0000	4.50 18.17	
Sharpen Preface	OZ OZ	6.04 4.05	2.0000 11.0000	12.08 44.55	
Facet L Aim	pt oz	14.57 5.67	2.0000 1.5000	29.14 8.50	
Clincher SF INSECTICIDES	OZ	2.26	7.5000	16.95	
Warrior ZT IRRIGATION SUPPLIES	ΟZ	2.43	3.0000	7.29	
Roll-Out Pipe SEED/PLANTS	ft	0.24	33.0000	7.92	
Rice Fullpage Hyb Tr		6.97 2.67	23.0000 4.2500	160.31 11.35	
Rice Seed FPH(Levee) Rice Seed Trt/Insect		0.29	4.2500	1.23	
ADJUVANTS MSO	pt	2.40	1.5000	3.60	
Class Act NG Crop Oil Conc.(Pet.)	pt pt	1.75 2.86	0.5000 4.0000	0.88 11.44	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	4.3220	32.42	
HAULING Haul Rice	bu	0.35	180.0000	63.00	
DRYING Dry Rice	bu	0.40	180.0000	72.00	
SURVĒY & MARK LEVEES Survey & Mark Levees	acre	4.50	0.5000	2.25	
CROP COÑSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.5281	7.74	
Harvesters IRRIGATE LABOR	hour	14.68	0.1760	2.58	
Special Labor Implements HAND LABOR	hour hour	9.06 9.06	1.1250 0.0375	10.18	
Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR Special Labor UNALLOCATED LABOR	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
DIESEL FUEL Tractors	gal	1.53	5.8180	8.89	
Harvesters Flood Irr.	gal gal	1.53 1.53	2.9444 18.7364	4.51 28.67	
REPAIR & MAINTENANCE Implements	acre	8.58	1.0000	8.58	
Tractors Harvesters	acre acre	3.59 7.24	1.0000	3.59 7.24	
Flood Irr. INTEREST ON OP. CAP.	acre acre	13.96 12.39	1.0000	13.96 12.39	
TOTAL DIRECT EXPENSES	acre	12.59	1.0000	791.22	
FIXED EXPENSES Implements	acre	18.29	1.0000	18.29	
Tractors	acre	21.98	1.0000	21.98	
Harvesters Flood Irr.	acre acre	27.72 64.48	1.0000 1.0000	27.72 64.48	
TOTAL FIXED EXPENSES			•	132.47	
TOTAL SPECIFIED EXPENSES				923.69	

Note: Cost of production estimates are based on 2020 input prices.. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 36.B Summary of estimated costs and returns per acre Fullpage hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	180.0000	918.00	
TOTAL INCOME				918.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	41.75	1.0000	41.75	
FERTILIZERS	acre	94.26	1.0000	94.26	
HERBICIDES	acre	144.29	1.0000	144.29	
INSECTICIDES	acre	7.29	1.0000	7.29	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	172.89	1.0000	172.89	
ADJUVANTS	acre	15.92	1.0000	15.92	
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41	
HAULING	acre	63.00	1.0000	63.00	
DRYING	acre	72.00	1.0000	72.00	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.1625	10.52	
OPERATOR LABOR	hour	14.68	0.7041	10.32	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	27.4990	42.07	
REPAIR & MAINTENANCE	acre	33.37	1.0000	33.37	
INTEREST ON OP. CAP.	acre	12.39	1.0000	12.39	
TOTAL DIRECT EXPENSES			·	791.22	
RETURNS ABOVE DIRECT EXP	ENSES			126.78	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES	;		-	923.69	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		-5.69	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 36.C Estimated resource use for field operations, per acre Fullpage hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

	,	,								
OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	МТН	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					48.0000				
2,4-D Amine 4	pt					2.0000				
Grain Drill	24'	MFWD 225	0.078	1.00	Apr		0.07	0.07	0.15	0.07
Rice Fullpage Hyb Tr						23.0000				
Roller/Cultipacker	30'	MFWD 225	0.049		Apr	1 0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME Sharpen	pt oz					1.0000				
MSO	pt					0.5000				
Class Act NG	pt					0.5000				
Seed Levees	PC			1.00	Apr	0.5000				
Rice Seed FPH(Levee)	lb			1.00	1101	4.2500				
Rice Seed Trt/Insect						4.2500				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Preface	OZ				_	5.0000				
Facet L	pt					2.0000				
Crop Oil Conc.(Pet.)	pt					2.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre				May	1.0000				
App Fert by Air	cwt			1.00	May	2.6700				
Urea, Solid (46% N)	cwt					2.6700				
NBPT	pt			1.00	Marr	0.8000				
App by Air (10 gal) Preface	appl oz			1.00	мау	1.0000				
Crop Oil Conc. (Pet.)						2.0000				
Aim	OZ					1.5000				
Rice Management	02			1.00	May	1.0000				
RICE MGT. LABOR	hour				- 2				0.10	
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO	pt					1.0000				
Rice Management				1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	0.6520				
Urea, Solid (46% N)	cwt					0.6520				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour			4 50		4 5000			0.20	
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	OZ			1 00	3 .	3.0000				
Rice Management RICE MGT. LABOR	hour			1.00	Aug				0 20	
Header - Draper (SL)	hour 25' Rigid	20E hm	0 176	1 00	7.1.~		0 17	0 17	0.20 0.17	0 15
Grain Cart Rice	700 bu	325 hp MFWD 225	0.176	1.00	Aug Aug		0.17 0.01	0.17	0.17	0.15
Handling & Storage	700 Du	MEWD 223	0.055	1.00	Aug		0.01	0.01	0.01	0.00
HAND LABOR	hour			1.00	1149				0.25	
Haul Rice	bu			1.00	Aug	180.0000			V.20	
Dry Rice	bu			1.00	Aug	180.0000				
Disk Heavy	28'	MFWD 225	0.075		Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.10	0.10	1.26	
TOTALS							0.70	0.70	2.89	0.53

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 36.D Estimated costs for field operations, per acre Fullpage hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ODEDATION /	Q T 7 F /				DIDECT CC	NGT				TOTAL
OPERATION/ OPERATING INPUT	SIZE/ UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER		FIXED COST	COST
					d	lollars-				
- 12					Č	.011415				0.46
Soil Test	acre	3.33	1 65	1 60	0.60		0.13	3.46	0.00	3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'	7.00	0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 3lbs a.e 2,4-D Amine 4	oz pt	6.24 4.50					0.17 0.12	6.41 4.62		6.41 4.62
Grain Drill	24 '	4.50	1.39	2.54	2.90		0.12	6.97	7.12	14.09
Rice Fullpage Hyb Tr		160.31	1.33	2.54	2.50		3.21		7.12	163.52
Roller/Cultipacker	30'	100.01	0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00	0.00	0.00	1.03		0.14	7.14	2.10	7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees										
Rice Seed FPH(Levee)	lb	11.35					0.23	11.58		11.58
Rice Seed Trt/Insect	lbseed	1.23					0.02	1.25		1.25
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Preface	ΟZ	20.25					0.41	20.66		20.66
Facet L	pt	29.14					0.58	29.72		29.72
Crop Oil Conc.(Pet.)	=	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00 20.02					0.13	8.13 20.35		8.13 20.35
App Fert by Air Urea, Solid (46% N)	cwt cwt	52.71					0.88	53.59		53.59
NBPT	pt	8.85					0.15	9.00		9.00
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Preface	OZ	24.30					0.41	24.71		24.71
Crop Oil Conc.(Pet.)	pt	5.72					0.10	5.82		5.82
Aim	OZ	8.50					0.14	8.64		8.64
Rice Management										
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	ΟZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management										4 00
RICE MGT. LABOR	hour	4 00			1.81		0.02	1.83		1.83
App Fert by Air	cwt	4.89					0.07	4.96		4.96
Urea, Solid (46% N)	cwt	12.87					0.17	13.04		13.04
Rice Management RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (3 gal)	appl	8.25			1.01		0.02	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management	02	,.23					0.07	7.50		7.50
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	63.00					0.42	63.42		63.42
Dry Rice	bu	72.00					0.48	72.48		72.48
Disk Heavy	28'		2.68	3.45	4.22		0.03	10.38	11.52	21.90
Flood Irr.	acre	10.17	30.08	14.66	12.06 		1.08	68.05	68.82	136.87
TOTALS		665.31	42.07	33.37	38.08	0.00	12.39	791.22	132.47	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every $3^{\rm rd}\ \text{year.}$

Table 36.E Estimated monthly income and expense flows per acre Fullpage hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
·						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	83.80	32.80	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	172.89	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	9.90	2.72	3.62	3.62	10.32	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	9.50	7.48	7.48	7.48	5.11	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.31	8.01	2.10	2.10	10.14	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	6.27	3.07	0.72	0.29	1.07	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	319.64	185.71	54.53	29.03	161.64	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-319.64	-185.71	-54.53	-29.03	756.36	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-349.93	-535.64	-590.17	-619.20	137.16	126.78

^{*} Lease costs are based on hourly usage costs.

Table 36.F Estimated returns for various price/yield combinations, per acre Fullpage hybrid straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100 ODUCT PRIC	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59		5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	90.00	bu	-379 -511	-356 -488	-333 -465	-310 -442	-287 -419	-264 -396	-241 -373	-218 -350	-195 -327	-172 -304	-149 -281
60	108.00	bu	-323 -456	-296 -428	-268 -401	-241 -373	-213 -346	-186 -318	-158 -290	-130 -263	-103 -235	-75 -208	-48 -180
70	126.00	bu	-268 -400	-236 -368	-204 -336	-172 -304	-139 -272	-107 -240	-75 -208	-43 -176	-11 -143	20 -111	52 -79
80	144.00	bu	-213 -345	-176 -308	-139 -272	-103 -235	-66 -198	-29 -162	7 -125	43 -88	80 -51	117 -15	153 21
90	162.00	bu	-157 -290	-116 -249	-75 -207	-34 -166	7 -125	48 -83	89 -42	131 -1	172 40	213 81	255 122
100	180.00	bu	-102 -235	-56 -189	-10 -143	34 -97	80 -51	126 -5	172 40	218 86	264 132	310 177	356 223
110	198.00	bu	-47 -179	3 -129	53 -78	104 -28	154 22	204 72	255 123	305 173	356 223	406 274	457 324
120	216.00	bu	7 -124	62 -69	117 -14	173 40	228 95	283 150	338 205	393 260	448 315	503 371	558 426
130	234.00	bu	63 -69	122 -9	182 49	242 109	301 169	361 228	421 288	480 348	540 407	600 467	659 527
140	252.00	bu	118 -14	182 50	246 114	311 178	375 242	439 307	503 371	568 435	632 499	696 564	760 628
150	270.00	bu	173 41	242 109	311 178	380 247	448 316	517 385	586 454	655 523	724 591	793 660	862 729

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 37.A Estimated costs per acre Fullpage hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) App by Air (10 gal)	appl appl	7.00 9.00	3.5000 1.0000	24.50 9.00	
App by Air (3 gal) FERTILIZERS	appl	5.50	1.5000	8.25	
Amm Sulfate (21% N)	cwt cwt	18.66 20.99	0.5000	9.33 10.50	
Urea, Solid (46% N)	cwt	19.74	3.3220	65.58	
NBPT HERBICIDES	pt	11.06	0.8000	8.85	
Glyphosate 31bs a.e 2,4-D Amine 4	oz pt	0.13 2.25	80.0000 2.0000	10.40 4.50	
Command 3ME Sharpen	pt oz	18.17 6.04	1.0000 2.0000	18.17 12.08	
Preface Facet L	oz pt	4.05 14.57	11.0000 2.0000	44.55 29.14	
Aim	ΟZ	5.67	1.5000	8.50	
Clincher SF INSECTICIDES	ΟZ	2.26	7.5000	16.95	
Warrior ZT SEED/PLANTS	ΟZ	2.43	3.0000	7.29	
Rice Fullpage Hyb Tr Rice Seed FPH(Levee)		6.97 2.67	23.0000 4.2500	160.31 11.35	
Rice Seed Trt/Insect		0.29	4.2500	1.23	
MSO	pt	2.40	1.5000	3.60	
Class Act NG Crop Oil Conc.(Pet.)	pt pt	1.75 2.86	0.5000 4.0000	0.88 11.44	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	4.3220	32.42	
HAULING Haul Rice	bu	0.35	180.0000	63.00	
DRYING Dry Rice	bu	0.40	180.0000	72.00	
CROP CONSULTANT				8.00	
Rice Consultant SOIL TEST	acre	8.00	1.0000		
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors Harvesters	hour hour	14.68 14.68	0.4228 0.1760	6.20 2.58	
IRRIGATE LABOR Special Labor	hour	9.06	1.0500	9.53	
HAND LABOR Special Labor	hour	9.06	0.2500	2.27	
Implements	hour	9.06	0.0785	0.71	
RICE MGT. LABOR Special Labor	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR DIESEL FUEL	hour	14.69	0.5389	7.92	
Tractors Harvesters	gal gal	1.53 1.53	4.8970 2.9444	7.48 4.51	
Flood Irr. REPAIR & MAINTENANCE	gal	1.53	15.4779	23.68	
Implements	acre	8.40	1.0000	8.40	
Tractors Harvesters	acre acre	3.07 7.24	1.0000 1.0000	3.07 7.24	
Flood Irr. INTEREST ON OP. CAP.	acre acre	11.80 11.99	1.0000	11.80 11.99	
TOTAL DIRECT EXPENSES	-			768.86	
FIXED EXPENSES	2070	17.16	1.0000	17.16	
Implements Tractors	acre acre	18.77	1.0000	18.77	
Harvesters Flood Irr.	acre acre	27.72 64.16	1.0000 1.0000	27.72 64.16	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES				896.67	
Total Statistics Entered			202		

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 37.B Summary of estimated costs and returns per acre Fullpage hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	180.0000	918.00	
TOTAL INCOME				918.00	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	41.75	1.0000	41.75	
FERTILIZERS	acre	94.26	1.0000	94.26	
HERBICIDES	acre	144.29	1.0000	144.29	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	172.89	1.0000	172.89	
ADJUVANTS	acre	15.92	1.0000	15.92	
CUSTOM FERTILIZE	acre	32.41	1.0000	32.41	
HAULING	acre	63.00	1.0000	63.00	
DRYING	acre	72.00	1.0000	72.00	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.0500	9.53	
OPERATOR LABOR	hour	14.68	0.5988	8.78	
RICE MGT. LABOR		9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	23.3194	35.67	
REPAIR & MAINTENANCE	acre	30.51	1.0000		
INTEREST ON OP. CAP.	acre	11.99	1.0000	11.99	
TOTAL DIRECT EXPENSES				768.86	
RETURNS ABOVE DIRECT EXE	PENSES			149.14	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES	3			896.67	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		21.33	

Table 37.C Estimated resource use for field operations, per acre Fullpage hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								hoi	ırs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	OZ					48.0000				
2,4-D Amine 4	pt	MEND OOF	0 070	1 00		2.0000	0 07	0 07	0 1 5	0 07
Grain Drill	24'	MFWD 225	0.078	1.00	Apr	23.0000	0.07	0.07	0.15	0.07
Rice Fullpage Hyb Tr Roller/Cultipacker	1b 30'	MFWD 225	0.049	1.00	Apr	23.0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl	THE WD 223	0.045	1.00	_	1.0000	0.04	0.01	0.04	0.01
Glyphosate 31bs a.e	OZ			1.00	1101	32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt					0.5000				
Seed Levees				1.00	Apr					
Rice Seed FPH(Levee)	lb					4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Preface	OZ					5.0000				
Facet L	pt					2.0000				
Crop Oil Conc.(Pet.) App Fert by Air	pt			1 00	Marr	2.0000				
Amm Sulfate (21% N)	cwt cwt			1.00	мау	1.0000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	May	2.6700				
Urea, Solid (46% N)	cwt			1.00	1101	2.6700				
NBPT	pt					0.8000				
App by Air (10 gal)	appl			1.00	May	1.0000				
Preface	ΟZ					6.0000				
Crop Oil Conc.(Pet.)	pt					2.0000				
Aim	ΟZ					1.5000				
Rice Management	_			1.00	May					
RICE MGT. LABOR	hour			0 50	_	0 5000			0.10	
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Clincher SF	OZ					7.5000				
MSO Rice Management	pt			1.00	Jun	1.0000				
RICE MGT. LABOR	hour			1.00	Oun				0.20	
App Fert by Air	cwt			1.00	Jun	0.6520			0.20	
Urea, Solid (46% N)	cwt					0.6520				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.20	
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	OZ					3.0000				
Rice Management				1.00	Aug					
RICE MGT. LABOR	hour								0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176		_		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		0.01	0.01	0.01	0.00
Handling & Storage	h 01			1.00	Aug				0.05	
HAND LABOR	hour			1 00	7\11~	100 0000			0.25	
Haul Rice	bu			1.00	Aug	180.0000				
Dry Rice Disk Heavy	bu 28'	MFWD 225	0.075		Aug Sep	180.0000	0.15	0.15	0.15	0.13
Flood Irr.	acre	PIEWD ZZJ	0.073	2.00	Jan	1.0000	0.10	0.10	1.05	0.13
					0 311	2.0000				

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 37.D Estimated costs for field operations, per acre Fullpage hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ODEDATION /	Q T 7 F /				DIDECT CC	NGT			EIAEU	TOTAL
OPERATION/ OPERATING INPUT	SIZE/ UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER		FIXED COST	COST
					d	lollars-				
- 12					, and the second	.011010				0.46
Soil Test	acre	3.33	1 (1 60	0.60		0.13	3.46	0 00	3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'	7.00	0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e 2,4-D Amine 4	OZ D+	6.24 4.50					0.17 0.12	6.41 4.62		6.41 4.62
Grain Drill	pt 24 '	4.30	1.39	2.54	2.90		0.12	6.97	7.12	14.09
Rice Fullpage Hyb Tr		160.31	1.55	2.54	2.50		3.21		7.12	163.52
Roller/Cultipacker	30'	100.51	0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00	0.00	0.00	1.00		0.14	7.14	2.10	7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees										
Rice Seed FPH(Levee)	lb	11.35					0.23	11.58		11.58
Rice Seed Trt/Insect	lbseed	1.23					0.02	1.25		1.25
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Preface	ΟZ	20.25					0.41	20.66		20.66
Facet L	pt	29.14					0.58	29.72		29.72
Crop Oil Conc.(Pet.)	-	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	20.02					0.33	20.35		20.35
Urea, Solid (46% N) NBPT	cwt n+	52.71 8.85					0.88 0.15	53.59 9.00		53.59 9.00
App by Air (10 gal)	pt appl	9.00					0.15	9.15		9.15
Preface	OZ	24.30					0.13	24.71		24.71
Crop Oil Conc. (Pet.)		5.72					0.10	5.82		5.82
Aim	OZ	8.50					0.14	8.64		8.64
Rice Management										
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Clincher SF	OZ	16.95					0.23	17.18		17.18
MSO	pt	2.40					0.03	2.43		2.43
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	cwt	4.89					0.07	4.96		4.96
Urea, Solid (46% N)	cwt	12.87					0.17	13.04		13.04
Rice Management										
RICE MGT. LABOR	hour	0.05			1.81		0.02	1.83		1.83
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	ΟZ	7.29					0.07	7.36		7.36
Rice Management RICE MGT. LABOR	hour				1.81		0.01	1.82		1 00
	hour		4.51	9.72	4.91		0.01	19.27	31.45	1.82 50.72
Header - Draper (SL) Grain Cart Rice	25' Rigid 700 bu		0.19	0.21	0.31		0.13	0.71	0.71	1.42
Handling & Storage	700 Du		0.13	0.21	0.51			0.71	0.71	1.72
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	63.00			/		0.42	63.42		63.42
Dry Rice	bu	72.00					0.48	72.48		72.48
Disk Heavy	28'	. 2 • 0 0	2.68	3.45	4.22		0.03	10.38	11.52	21.90
Flood Irr.	acre		23.68	11.80	9.53		0.68	45.69		109.85
TOTALS		655.14	35.67	30.51	35.55	0.00	11.99	768.86	127.81	896.67

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 37.E Estimated monthly income and expense flows per acre Fullpage hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	918.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	8.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.39	12.87	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	83.80	32.80	16.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	172.89	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	2.40	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.52	4.89	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.00	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	7.01	3.18	4.08	4.08	9.30	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	7.26	6.23	6.23	6.23	4.70	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	4.31	7.46	1.55	1.55	9.93	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	5.94	3.05	0.70	0.27	1.06	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	303.01	184.35	53.17	27.67	159.99	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-303.01	-184.35	-53.17	-27.67	758.01	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-333.30	-517.65	-570.82	-598.49	159.52	149.14

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

* Lease costs are based on hourly usage costs.

Table 37.F Estimated returns for various price/yield combinations, per acre Fullpage hybrid straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

								-PERCENT-					
PRODUCT			75	80	85	90	95	100	105		115	120	125
Rice			3.82	4.08		4.59		5.10			5.86	6.12	6.37
PERCENT	YIELD	UNIT					d	ollars					
50	90.00	bu	-356 -484	-333 -461	-310 -438	-287 -415	-264 -392	-241 -369	-218 -346	-196 -323	-173 -300	-150 -277	-127 -254
60	108.00	bu	-301 -429	-273 -401	-246 -374	-218 -346	-191 -319	-163 -291	-136 -263	-108 -236	-81 -208	-53 -181	-26 -153
70	126.00	bu	-246 -373	-214 -341	-181 -309	-149 -277	-117 -245	-85 -213	-53 -181	-21 -149	10 -116	43 -84	75 - 52
80	144.00	bu	-190 -318	-154 -281	-117 -245	-80 -208	-44 -171	-7 -135	29 -98	66 -61	102 -24	139 11	176 48
90	162.00	bu	-135 -263	-94 -222	-53 -180	-11 -139	29 -98	70 -56	112 -15	153 25	194 67	236 108	277 149
100	180.00	bu	-80 -208	-34 -162	11 -116	57 -70	103 -24	149 21	195 67	240 113	286 159	332 204	378 250
110	198.00	bu	-25 -152	25 -102	75 -51	126 -1	176 49	227 99	277 150	328 200	378 251	429 301	479 351
120	216.00	bu	30 -97	85 -42	140 12	195 67	250 122	305 177	360 232	415 287	470 342	525 398	580 453
130	234.00	bu	85 -42	145 17	204 76	264 136	324 196	383 255	443 315	503 375	562 434	622 494	682 554
140	252.00	bu	140 12	204 77	269 141	333 205	397 269	461 334	526 398	590 462	654 526	719 591	783 655
150	270.00	bu	195 68	264 136	333 205	402 274	471 343	540 412	609 481	677 550	746 618	815 687	884 756

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 38.A Estimated costs per acre Provisia contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY		YOUR FARM
DIRECT EXPENSES		dollars		dollars	
CUSTOM SPRAY App by Air (5 gal)	appl	7.00	4.5000	31.50	
App by Air (10 gal) App by Air (3 gal)	appl appl	9.00	1.0000	9.00 8.25	
FERTILIZERS Amm Sulfate (21% N)	cwt	18.66	0.5000	9.33	
DAP Urea, Solid (46% N)	cwt cwt	20.99 19.74	0.5000 4.0000	10.50 78.96	
NBPT FUNGICIDES	pt	11.06	0.7500	8.30	
Flint Extra Tilt 3.6 EC	OZ OZ	8.88 0.76	4.7000 10.0000	41.74 7.60	
HERBICIDES Glyphosate 31bs a.e	ΟZ	0.13	80.0000	10.40	
2,4-D Amine 4 Command 3ME	pt pt	2.25 18.17	2.0000	4.50 18.17	
Sharpen Provisia	OZ OZ	6.04 0.85	2.0000 31.0000	12.08 26.35	
Aim Permit	OZ OZ	5.67 21.99	1.0000 0.7500	5.67 16.49	
Regiment INSECTICIDES	ΟZ	43.56	0.2500	10.89	
Warrior ZT SEED/PLANTS	ΟZ	2.43	3.0000	7.29	
Rice Seed Provisia Rice Seed Trt/Insect ADJUVANTS	lb lbseed	1.23 0.29	77.0000 77.0000	94.71 22.33	
Class Act NG MSO	pt pt	1.75	0.5000	0.88 1.20	
Crop Oil Conc.(Pet.)	pt	2.86	4.0000	11.44	
Dyne-A-Pak Surfactant	pt pt	5.16 3.30	0.2500 0.1000	1.29 0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	156.0000	54.60	
DRYING Dry Rice	bu	0.40	156.0000	62.40	
SURVEY & MARK LEVEES Survey & Mark Levees	acre	4.50	1.0000	4.50	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors	hour	14.68	0.5475	8.03	
Harvesters IRRIGAȚE LABOR	hour	14.68	0.2030	2.98	
Special Labor HAND LABOR	hour	9.06	3.5250	31.96	
Special Labor Implements RICE MGT. LABOR	hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
Special Labor UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.68	1.5000 0.5633	13.59 8.27	
Tractors Harvesters	gal gal	1.53 1.53	5.9886 3.3975	9.16 5.20	
Flood Irr. REPAIR & MAINTENANCE	gal	1.53	26.8827	41.14	
Implements Tractors	acre acre	8.97 3.69	1.0000	8.97 3.69	
Harvesters Flood Irr.	acre	8.36	1.0000	8.36 14.31	
INTEREST ON OP. CAP.	acre acre	14.31 11.74	1.0000	11.74	
TOTAL DIRECT EXPENSES				789.92	
FIXED EXPENSES Implements	acre	18.64	1.0000	18.64	
Tractors Harvesters	acre	22.58 31.99	1.0000	22.58	
Flood Irr.	acre	42.08	1.0000	42.08	
TOTAL FIXED EXPENSES				115.29	
TOTAL SPECIFIED EXPENSES				905.21	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 38.B Summary of estimated costs and returns per acre Provisia contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	156.0000	795.60	
TOTAL INCOME			-	795.60	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	104.56	1.0000	104.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	117.04	1.0000	117.04	
ADJUVANTS	acre	15.14	1.0000	15.14	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	54.60	1.0000	54.60	
DRYING	acre	62.40	1.0000	62.40	
SURVEY & MARK LEVEES	acre	4.50	1.0000	4.50	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	3.5250	31.96	
OPERATOR LABOR	hour	14.68	0.7506	11.01	
RICE MGT. LABOR	hour	9.06	1.5000	13.59	
UNALLOCATED LABOR	hour	14.68	0.5633	8.27	
DIESEL FUEL	gal	1.53	36.2688	55.50	
REPAIR & MAINTENANCE	acre	35.33	1.0000	35.33	
INTEREST ON OP. CAP.	acre	11.74	1.0000	11.74	
TOTAL DIRECT EXPENSES				789.92	
RETURNS ABOVE DIRECT EXI	PENSES			5.68	
TOTAL FIXED EXPENSES				115.29	
TOTAL SPECIFIED EXPENSES	5		-	905.21	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		-109.61	

Table 38.C Estimated resource use for field operations, per acre Provisia contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT		TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								hoi	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	OZ					48.0000				
2,4-D Amine 4	pt	149779 00E	0 070	1 00	_	2.0000	0 07	0 07	0 1 5	0 0 7
Grain Drill	24'	MFWD 225	0.078	1.00	Apr	CE 0000	0.07	0.07	0.15	0.07
Rice Seed Provisia Rice Seed Trt/Insect	lb lbseed					65.0000 65.0000				
Roller/Cultipacker	30'	MFWD 225	0 049	1.00	Apr	03.0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl	MFWD 223	0.045	1.00	_	1.0000	0.04	0.04	0.04	0.04
Glyphosate 3lbs a.e	OZ			1.00	1101	32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
Class Act NG	pt					0.5000				
MSO	pt					0.5000				
Seed Levees				1.00	Apr					
Rice Seed Provisia	lb					12.0000				
Rice Seed Trt/Insect	lbseed					12.0000				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Provisia	OZ					15.5000				
Aim	OZ					1.0000				
Permit	OZ					0.7500				
Crop Oil Conc.(Pet.)	pt					2.0000				
App Fert by Air	cwt .			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt			1 00	3.6.	0.5000				
Rice Consultant	acre			1.00	-	1.0000				
App Fert by Air Urea, Solid (46% N)	cwt cwt			1.00	мау	2.5000				
NBPT	pt					0.7500				
App by Air (10 gal)	appl			1.00	Mav	1.0000				
Provisia	OZ			1.00	1101	15.5000				
Crop Oil Conc.(Pet.)						2.0000				
Rice Management	1 -			1.00	May					
RICE MGT. LABOR	hour				-				0.30	
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Regiment	OZ					0.2500				
Dyne-A-Pak	pt					0.2500				
Rice Management				1.00	Jun					
RICE MGT. LABOR	hour								0.50	
App Fert by Air	cwt			1.00	Jun	1.5000				
Urea, Solid (46% N)	cwt			1 00	- 1	1.5000				
Rice Management	le			1.00	Jul				0 50	
RICE MGT. LABOR App by Air (5 gal)	hour			1 00	T., 1	1.0000			0.50	
	appl			1.00	Jul					
Flint Extra Tilt 3.6 EC	OZ OZ					4.7000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	.T11]	1.5000				
Warrior ZT	OZ			1.50	our	3.0000				
Rice Management	02			1.00	Aug	3.0000				
RICE MGT. LABOR	hour			1.00	11009				0.20	
Header - Draper (CL)	25' Rigid	325 hp	0.203	1.00	Aug		0.20	0.20	0.20	0.18
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	156.0000				
Dry Rice	bu			1.00	Aug	156.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	
moma										
TOTALS							0.75	0.75	6.10	0.56

Table 38.D Estimated costs for field operations, per acre Provisia contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

	SIZE/								FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32'		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	ΟZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Provisia	lb	79.95					1.60	81.55		81.55
Rice Seed Trt/Insect		18.85					0.38	19.23		19.23
Roller/Cultipacker	30'		0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 31bs a.e	OZ	4.16					0.08	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
Class Act NG	pt ~+	0.88					0.02	0.90		0.90
MSO	pt	1.20					0.02	1.22		1.22
Seed Levees	1 h	14.76					0.30	15 06		15 06
Rice Seed Provisia Rice Seed Trt/Insect	lb lbseed	3.48					0.30	15.06 3.55		15.06 3.55
App by Air (5 gal)	appl	7.00					0.07	7.14		7.14
Provisia	OZ	13.18					0.26	13.44		13.44
Aim	OZ	5.67					0.20	5.78		5.78
Permit	OZ	16.49					0.33	16.82		16.82
Crop Oil Conc. (Pet.)	pt	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Provisia	OZ	13.18					0.22	13.40		13.40
Crop Oil Conc.(Pet.)	pt	5.72					0.10	5.82		5.82
Rice Management	-									
RICE MGT. LABOR	hour				2.72		0.05	2.77		2.77
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Regiment	ΟZ	10.89					0.15	11.04		11.04
Dyne-A-Pak	pt	1.29					0.02	1.31		1.31
Rice Management										
RICE MGT. LABOR	hour				4.53		0.06	4.59		4.59
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management										
RICE MGT. LABOR	hour				4.53		0.05	4.58		4.58
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	OZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management	_									
RICE MGT. LABOR	hour			44 00	1.81		0.01	1.82	0.5.00	1.82
Header - Draper (CL)	25' Rigid		5.20	11.22	5.66		0.15	22.23	36.30	58.53
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage	1				0 07		0 00	0 00		0 00
HAND LABOR	hour	F 4 66			2.27		0.02	2.29		2.29
Haul Rice	bu	54.60					0.36	54.96		54.96
Dry Rice	bu	62.40	2 (2	2 45	4 00		0.42		11 50	62.82
Disk Heavy	28'	4 50	2.68	3.45	4.22		0.03		11.52	21.90
Flood Irr.	acre	4.50	42.82	15.12	33.79 		1.47	97.70	40./9	144.49
TOTALS		619.54	55.50	35.33	67.81	0.00	11.74	789.92	115.29	905.21

Table 38.E Estimated monthly income and expense flows per acre Provisia contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	795.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	69.75	13.18	10.89	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	117.04	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	1.29	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.60	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.40	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	16.10	9.52	11.33	11.33	11.63	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.81	11.22	11.22	11.22	6.01	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.10	8.20	2.29	2.29	11.74	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.89	2.83	1.09	0.98	0.98	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	249.99	171.40	82.47	98.03	147.36	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-249.99	-171.40	-82.47	-98.03	648.24	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-280.28	-451.68	-534.15	-632.18	16.06	5.68

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

^{*} Lease costs are based on hourly usage costs.

Table 38.F Estimated returns for various price/yield combinations, per acre Provisia contour levee rice Flood irrigated, 33 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59		ODUCT PRI 5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
							0.50					0.50	
50	78.00	bu	-432	-412	-392	-373	-353	-333	-313	-293	-273	-253	-233
			-547	-528	-508	-488	-468	-448	-428	-408	-388	-368	-349
60	93.60	bu	-384	-360	-337	-313	-289	-265	-241	-217	-193	-169	-146
			-500	-476	-452	-428	-404	-380	-356	-333	-309	-285	-261
70	109.20	bu	-336	-309	-281	-253	-225	-197	-169	-141	-114	-86	-58
			-452	-424	-396	-368	-340	-312	-285	-257	-229	-201	-173
80	124.80	hu	-289	-257	-225	-193	-161	-129	-98	-66	-34	-2	29
00	121.00	Du	-404	-372	-340	-308	-276	-245	-213	-181	-149	-117	-86
90	140.40	le	-241	-205	-169	-133	-97	-62	-26	9	4.5	81	116
90	140.40	рu	-241 -356	-205 -320	-169 -284	-133 -248	-97 -213	-62 -177	-26 -141	-105	-69	-34	110
			-336	-320	-204	-240	-213	-1//	-141	-103	-69	-34	1
100	156.00	bu	-193	-153	-113	-73	-34	5	45	85	125	164	204
			-308	-268	-228	-189	-149	-109	-69	-30	9	49	89
110	171.60	bu	-145	-101	-57	-14	29	73	117	160	204	248	292
			-260	-216	-173	-129	-85	-41	1	45	89	133	176
120	187.20	bu	-97	-49	-1	45	93	141	188	236	284	332	379
			-212	-164	-117	-69	-21	25	73	121	169	216	264
130	202.80	hu	-49	2	53	105	157	209	260	312	364	415	467
130	202.00	Du	-164	-113	-61	- 9	42	93	145	197	248	300	352
140	218.40	bu	-1	54	109	165	221	276	332	388	443	499	555
			-116	-61	-5	50	105	161	217	272	328	384	439
150	234.00	bu	46	105	165	225	284	344	404	463	523	583	642
			-69	-9	50	109	169	229	288	348	408	467	527

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 39.A Estimated costs per acre Provisia straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

App by Air (5 gal) appl 7.00	ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
App by Air (5 gal) appl 7.00 4.5000 31.50 App by Air (10 gal) appl 9.00 1.0000 9.00 App by Air (3 gal) appl 5.50 1.5000 8.25 FERTILIZERS Amm Sulfate (21% N) cwt 18.66 0.5000 9.33 DAP 0.5001 (46% N) cwt 20.99 0.5000 10.50 DAP 0.5000 10.50 Cwt 20.99 0.5000 10.50 Cwt 20.99 Urea, Solid (46% N) cwt 19.74 4.0000 78.96 NBPT PUNGICIDES Filnt Extra 02 8.88 4.7000 41.74 Tilt 3.6 EC 02 0.76 10.0000 7.60 HERBICIDES Glyphosate 31bs a.e 02 0.13 8.0000 10.40 22.40 Amine 4 pt 2.25 2.0000 4.50 Cwt 20.000 12.08 Cwt 20.000 12.00 Cwt 20.000 12.00 Cwt 20.0000 12.00 Cwt 20.00000 12.000000000 12.0000000000	DIRECT EXPENSES		dollars		dollars	
App by Air (10 gal) appl 9.00 1.0000 9.00 App by Air (3 gal) appl 5.50 1.5000 8.25 FERTILIZERS Amm Sulfate (21% N) cwt 18.66 0.5000 9.33 DAP Cwt 20.99 0.5000 10.500 Urea, Solid (46% N) cwt 19.74 4.0000 78.96 NBPT Pt 11.06 0.7500 8.30 Pt 11.06 0.7500 9.50 Pt 11		annl	7 00	4 5000	31 50	
Amm Sulfate (21% N) cwt	App by Air (10 gal)		9.00	1.0000	9.00	
Amm Sulfate (21% N)		appl	5.50	1.5000	8.25	
Urea, Solid (46% N) cwt 19.74 4.0000 78.96 NBPT Pt 11.06 0.7500 8.30 FUNGICIDES Flint Extra 02 8.88 4.7000 41.74 Tilt 3.6 EC 02 0.76 10.0000 7.60 HERBICIDES Glyphosate 3lbs a.e 02 0.13 80.0000 10.40 2.40 Amine 4 pt 2.25 2.0000 4.50 Command 3ME pt 18.17 1.0000 18.17 Sharpen 02 6.04 2.0000 12.08 Provisia 02 0.85 31.0000 26.35 Aim 02 5.67 1.0000 5.67 Permit 02 21.99 0.7500 16.49 Regiment 02 21.99 0.7500 16.49 Regiment 02 21.99 0.7500 10.89 INSECTICIDES Warrior ZT 02 2.43 3.0000 7.29 SEED/PLANTS Rice Seed Provisia 1b 1.23 77.0000 94.71 Rice Seed Trt/Insect lbseed 0.29 77.0000 22.33 ADJUVANTS MSO pt 2.40 0.5000 1.20 Regiment 0.20 Pt 1.75 0.5000 0.88 Crop old Conc. (Pet.) pt 2.86 4.0000 11.44 Dyne-A-Pak pt 5.16 0.2500 1.29 Surfactant pt 3.30 0.1000 0.33 CUSTOM FERTILIZE App Fert by Air cwt 7.50 5.0000 37.50 HAULING H	Amm Sulfate (21% N)					
NBPT						
Flint Extra	NBPT					
HERRICIDES Glyphosate 31bs a.e oz 0.13 80.0000 10.40 2,4-D Amine 4 pt 2.25 2.0000 4.50 0.5000 1.00000 1.0000 1.0000 1.0000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.		OZ	8.88	4.7000	41.74	
Glyphosate 3lbs a.e oz 0.13 80.0000 10.40 2.4-D Amine 4 pt 2.25 2.0000 4.50 Command 3ME pt 18.17 1.0000 18.17 Sharpen oz 6.04 2.0000 12.08 Provisia oz 0.85 31.0000 26.35 Aim oz 5.67 1.0000 5.67 Permit oz 21.99 0.7500 16.49 Regiment oz 43.56 0.2500 10.89 NegCinciples Warrior ZT oz 2.43 3.0000 7.29 SEED/FLANTS Rice Seed Provisia lb 1.23 77.0000 94.71 Rice Seed Trt/Insect lbseed 0.29 77.0000 94.71 Rice Seed Trt/Insect lbseed 0.29 77.0000 94.71 Rice Seed Trt/Insect lbseed 0.29 77.0000 94.71 Physical Surfactant pt 3.30 0.1000 0.38 Crop 0il Conc. (Pet.) pt 2.86 4.0000 11.44 Dyne-A-Pak pt 5.16 0.2500 12.9 Surfactant pt 3.30 0.1000 0.33 CUSTOM FERTILIZE App Fert by Air cwt 7.50 5.0000 37.50 HAULING HAULING BAURY & MARK LEVEES Survey & MARK LEVEES Survey & MARK Levees acre 4.50 0.5000 2.25 CROP CONSULTANT Rice Consultant acre 8.00 1.0000 8.00 SURVEY & MARK Levees acre 4.50 0.5000 2.25 CROP CONSULTANT Rice Consultant acre 8.00 1.0000 8.00 SURVEY & MARK Levees acre 10.00 0.3330 3.33 OPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.69 0.5389 7.92 DIESEL FUEL Tractors Gal 1.53 5.5719 8.51 Harvesters Gal 1.53 5.5719 8.51 Harvesters Gal 1.53 2.9444 4.51 Flood Irr. REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Flood Irr. REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Flood Irr. REPAIR & MAINTENANCE Implements acre 7.24 1.0000 7.24 Flood Irr. Flood Irr. Gare 7.24 1.0000 7.24 Flood Irr. Gare 7.24 1.0000 7.24 Flood Irr. Flood Irr. Gare 7.24 1.0000 7.24 Flood Irr. Flood Irr. Gare 7.24 1.0000 7.24 Flood		OZ	0.76	10.0000	7.60	
Command 3ME	Glyphosate 31bs a.e	OZ		80.0000	10.40	
Sharpen						
Aim oz 5.67 1.0000 5.67 Permit oz 21.99 0.7500 16.49 Regiment oz 43.56 0.2500 10.89 INSECTICIDES Warrior ZT oz 2.43 3.0000 7.29 SEED/PLANTS Rice Seed Provisia lb 1.23 77.0000 94.71 Rice Seed Provisia lb 1.23 77.0000 94.71 Rice Seed Trt/Insect lbseed 0.29 77.000 22.33 ADJUVANTS MSO pt 2.40 0.5000 1.20 Class Act NG pt 1.75 0.5000 0.88 Crop Oil Conc. (Pet.) pt 2.86 4.0000 11.44 Dyne-A-Pak pt 5.16 0.2500 1.29 Surfactant pt 3.30 0.1000 0.33 CUSTOM FERTILIEE App Fert by Air cwt 7.50 5.0000 37.50 HAULING Haul Rice bu 0.35 156.0000 54.60 DRYING Dry Rice SURVEY & MARK LEVEES Survey & Mark Levees acre 4.50 0.5000 62.40 SURVEY & MARK LEVEES Survey & Mark Levees acre 4.50 0.5000 2.25 CROP CONSULTANT Rice Consultant acre 8.00 1.0000 8.00 SOIL TEST Soil Test acre 10.00 0.3330 3.33 OPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.2500 2.27 Implements hour 9.06 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Tractors gal 1.53 2.9444 4.51 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 FLANCATED LABOR 7.24 REPAIR & MAINTENANCE Implements acre 7.24 1.0000 7.24 FLOOD IT. 24 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31	_					
Permit						
Name						
SEED/PLANTS		OZ			10.89	
Rice Seed Provisia lb 1.23 77.0000 94.71 Rice Seed Trt/Insect lbseed 0.29 77.0000 22.33 ADJUVANTS MSO pt 2.40 0.5000 1.20 Class Act NG pt 1.75 0.5000 0.88 Crop Oil Conc.(Pet.) pt 2.86 4.0000 11.44 Dyne-A-Pak pt 5.16 0.2500 1.29 Surfactant pt 3.30 0.1000 0.33 CUSTOM FERTILIZE App Fert by Air cwt 7.50 5.0000 37.50 HAULING HAULING Dry Rice bu 0.35 156.0000 54.60 DRYING Dry Rice bu 0.40 156.0000 62.40 SURVEY & MARK LEVEES Survey & Mark Levees acre 4.50 0.5000 2.25 CROP CONSULTANT Rice Consultant acre 8.00 1.0000 8.00 SOIL TEST Soil Test acre 10.00 0.3330 3.33 OPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.7850 0.71 RICE MGT. LABOR Special Labor hour 9.06 0.0785 0.71 RICE MGT. LABOR Special Labor hour 9.06 0.7859 7.92 DIESEL FUEL Tractors gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 2	Warrior ZT	OZ	2.43	3.0000	7.29	
Rice Seed Trt/Insect lbseed 0.29 77.0000 22.33 ADJUVANTS MSO pt 2.40 0.5000 1.20 Class Act NG pt 1.75 0.5000 0.88 Crop Oil Conc. (Pet.) pt 2.86 4.0000 11.44 Dyne-A-Pak pt 5.16 0.2500 1.29 Surfactant pt 3.30 0.1000 0.33 CUSTOM FERTILIZE App Fert by Air cwt 7.50 5.0000 37.50 HAULING Haul Rice bu 0.35 156.0000 54.60 DRYING Dry Rice Survey & Mark Levees acre 4.50 0.5000 2.25 CROP CONSULTANT Rice Consultant acre 8.00 1.0000 8.00 SOIL TEST Soil Test acre 10.00 0.3330 3.33 CPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.2500 2.27 Implements hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 2.9444 4.51 Flood Irr. acre 3.45 1.0000 3.45 Implements hour 9.30 1.0000 8.50 Implements acre 3.45 1.0000 3.45 Implements acre 7.24 1.0000 7.24 Flood Irr. acre 11.31 1.0000 11.31		1h	1 23	77 0000	94 71	
MSO	Rice Seed Trt/Insect					
Class Act NG		nt	2.40	0.5000	1.20	
Dyne-A-Pak pt 3.30 0.1000 1.29	Class Act NG	pt	1.75	0.5000	0.88	
Surfactant pt 3.30 0.1000 0.33 CUSTOM FERTILIZE App Fert by Air cwt 7.50 5.0000 37.50 HAULING Haul Rice bu 0.35 156.0000 54.60 DRYING Dry Rice bu 0.40 156.0000 62.40 SURVEY & MARK LEVEES Survey & Mark Levees acre 4.50 0.5000 2.25 CROP CONSULTANT Rice Consultant acre 8.00 1.0000 8.00 SOIL TEST Soil Test acre 10.00 0.3330 3.33 OPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR Special Labor hour 9.06 2.3750 21.52 HAND LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.0785 0.71 RICE MGT. LABOR Special Labor hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 14.31						
App Fert by Air	Surfactant					
HAULING Haul Rice bu 0.35 156.0000 54.60 DRYING Dry Rice bu 0.40 156.0000 62.40 SURVEY & MARK LEVEES Survey & Mark Levees acre 4.50 0.5000 2.25 CROP CONSULTANT Rice Consultant acre 8.00 1.0000 8.00 SOIL TEST Soil Test acre 10.00 0.3330 3.33 OPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR Special Labor hour 9.06 2.3750 21.52 HAND LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 11.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31		cwt	7.50	5.0000	37.50	
DRYING Dry Rice Dry Rice Dry Rice SURVEY & MARK LEVEES Survey & Mark Levees acre Rice Consultant Rice Consultant Rice Consultant Soil Test Soil Test Soil Test Soil Test Acre OPERATOR LABOR Tractors Harvesters Hour Indeed to the first series HAND LABOR Special	HAULING					
SURVEY & MARK LEVEES SURVEY & Mark Levees acre		bu	0.35	156.0000	54.60	
CROP CONSULTANT Rice Consultan		bu	0.40	156.0000	62.40	
Rice Consultant acre 8.00 1.0000 8.00 SOIL TEST Soil Test acre 10.00 0.3330 3.33 OPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR Special Labor hour 9.06 2.3750 21.52 HAND LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.0785 0.71 RICE MGT. LABOR Special Labor hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 11.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31		acre	4.50	0.5000	2.25	
Soil Test acre 10.00 0.3330 3.33 OPERATOR LABOR Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR 5pecial Labor hour 9.06 2.3750 21.52 HAND LABOR 5pecial Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.0785 0.71 RICE MGT. LABOR hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 3.45 Harvesters acre 3.45 1.0000 7.24 Flood Irr. acre 7.24	Rice Consultant	acre	8.00	1.0000	8.00	
Tractors hour 14.68 0.4999 7.33 Harvesters hour 14.68 0.1760 2.58 IRRIGATE LABOR Special Labor hour 9.06 2.3750 21.52 HAND LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.0785 0.71 RICE MGT. LABOR Special Labor hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31	Soil Test	acre	10.00	0.3330	3.33	
IRRIGATE LABOR Special Labor hour 9.06 2.3750 21.52		hour	14.68	0.4999	7.33	
Special Labor hour 9.06 2.3750 21.52 HAND LABOR Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.0785 0.71 RICE MGT. LABOR hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 1.0000 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31		hour	14.68	0.1760	2.58	
Special Labor hour 9.06 0.2500 2.27 Implements hour 9.06 0.0785 0.71 RICE MGT. LABOR hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31	Special Labor	hour	9.06	2.3750	21.52	
RICE MGT. LABOR Special Labor hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31		hour				
Special Labor hour 9.06 0.7000 6.34 UNALLOCATED LABOR hour 14.69 0.5389 7.92 DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31		hour	9.06	0.0785	0.71	
DIESEL FUEL Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31	Special Labor					
Tractors gal 1.53 5.5719 8.51 Harvesters gal 1.53 2.9444 4.51 Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31		hour	14.69	0.5389	7.92	
Flood Irr. gal 1.53 21.9949 33.64 REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31	Tractors					
REPAIR & MAINTENANCE Implements acre 8.50 1.0000 8.50 Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31						
Tractors acre 3.45 1.0000 3.45 Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31		2000	0 50	1 0000	0 50	
Harvesters acre 7.24 1.0000 7.24 Flood Irr. acre 14.31 1.0000 14.31 INTEREST ON OP. CAP. acre 11.31 1.0000 11.31			3.45		3.45	
INTEREST ON OP. CAP. acre 11.31 1.0000 11.31			7.24		7.24	
TOTAL DIRECT EXPENSES 757.43						
	TOTAL DIRECT EXPENSES				757.43	
	FIXED EXPENSES	2020	17 65	1 0000	17 65	
Implements acre 17.65 1.0000 17.65 Tractors acre 21.12 1.0000 21.12						
Harvesters acre 27.72 1.0000 27.72 Flood Irr. acre 64.81 1.0000 64.81	Harvesters	acre	27.72	1.0000	27.72	
		acre	04.01	1.0000		
TOTAL FIXED EXPENSES 131.30	TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES 888.73	TOTAL SPECIFIED EXPENSES				888.73	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Table 39.B Summary of estimated costs and returns per acre Provisia straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	156.0000	795.60	
TOTAL INCOME			•	795.60	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	104.56	1.0000	104.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	117.04	1.0000	117.04	
ADJUVANTS	acre	15.14	1.0000	15.14	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	54.60	1.0000	54.60	
DRYING	acre	62.40	1.0000	62.40	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	2.3750	21.52	
OPERATOR LABOR	hour	14.68	0.6759	9.91	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	30.5114	46.66	
REPAIR & MAINTENANCE	acre	33.50	1.0000	33.50	
INTEREST ON OP. CAP.	acre	11.31	1.0000	11.31	
TOTAL DIRECT EXPENSES			•	757.43	
RETURNS ABOVE DIRECT EXE	PENSES			38.17	
TOTAL FIXED EXPENSES				131.30	
TOTAL SPECIFIED EXPENSES	S			888.73	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		-93.13	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 39.C Estimated resource use for field operations, per acre Provisia straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	OZ					48.0000				
2,4-D Amine 4	pt 24 '	MEMD 33E	0 070	1 00	7. 22. 25	2.0000	0 07	0 07	0 15	0 07
Grain Drill Rice Seed Provisia	lb	MFWD 225	0.076	1.00	Apr	65.0000	0.07	0.07	0.15	0.07
Rice Seed Trt/Insect						65.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	_	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt n+					0.5000				
Class Act NG Seed Levees	pt			1.00	Δnr	0.5000				
Rice Seed Provisia	lb			1.00	Thr	12.0000				
Rice Seed Trt/Insect						12.0000				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Provisia	OZ				-	15.5000				
Aim	OZ					1.0000				
Permit	ΟZ					0.7500				
Crop Oil Conc.(Pet.)	pt			1 00		2.0000				
App Fert by Air	cwt			1.00	Мау	1.0000				
Amm Sulfate (21% N) DAP	cwt cwt					0.5000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	_	2.5000				
Urea, Solid (46% N)	cwt				-	2.5000				
NBPT	pt					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Provisia	ΟZ					15.5000				
Crop Oil Conc. (Pet.)	pt			1 00	Marr	2.0000				
Rice Management RICE MGT. LABOR	hour			1.00	May				0.10	
App by Air (5 gal)	appl			0.50	Jun	0.5000			0.10	
Regiment	OZ			0.50	oun	0.2500				
Dyne-A-Pak	pt					0.2500				
Rice Management				1.00	Jun					
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	1.5000				
Urea, Solid (46% N)	cwt			1 00	- 1	1.5000				
Rice Management	hour			1.00	Jul				0.20	
RICE MGT. LABOR App by Air (5 gal)	appl			1.00	.T11]	1.0000			0.20	
Flint Extra	OZ			1.00	Our	4.7000				
Tilt 3.6 EC	ΟZ					10.0000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	ΟZ					3.0000				
Rice Management	1			1.00	Aug				0.00	
RICE MGT. LABOR Header - Draper (SL)	hour	325 hn	0 17 <i>6</i>	1 00	711~		0.17	0.17	0.20 0.17	0.15
Grain Cart Rice	25' Rigid 700 bu	325 hp MFWD 225	0.176		Aug Aug		0.17	0.17	0.17	0.15
Handling & Storage	.00 20	111 110 220	0.000	1.00	Aug		0.01	O. O.	0.01	3.00
HAND LABOR	hour				9				0.25	
Haul Rice	bu			1.00	Aug	156.0000				
Dry Rice	bu			1.00	Aug	156.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.07	0.07	2.45	
TOTALS							0.67	0.67	4.07	0.53
							0.07	0.07	1.07	0.00

Table 39.D Estimated costs for field operations, per acre Provisia straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/	SIZE/								FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	ΟZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Provisia	lb	79.95					1.60	81.55		81.55
Rice Seed Trt/Insect		18.85			4 00		0.38	19.23		19.23
Roller/Cultipacker	30'	7.00	0.88	0.53	1.39		0.06	2.86	2.43	5.29
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Glyphosate 31bs a.e Command 3ME		4.16 18.17					0.08	4.24		4.24
Sharpen	pt oz	12.08					0.24	18.53 12.32		18.53 12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees	Pc	0.00					0.02	0.30		0.50
Rice Seed Provisia	lb	14.76					0.30	15.06		15.06
Rice Seed Trt/Insect		3.48					0.07	3.55		3.55
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Provisia	OZ	13.18					0.26	13.44		13.44
Aim	ΟZ	5.67					0.11	5.78		5.78
Permit	ΟZ	16.49					0.33	16.82		16.82
Crop Oil Conc.(Pet.)	pt	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre	8.00					0.13	8.13		8.13
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Provisia	ΟZ	13.18					0.22	13.40		13.40
Crop Oil Conc. (Pet.)	pt	5.72					0.10	5.82		5.82
Rice Management RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50			0.91		0.02	3.55		3.55
Regiment (5 gai)	OZ	10.89					0.15	11.04		11.04
Dyne-A-Pak	pt	1.29					0.02	1.31		1.31
Rice Management	Po	1.23					0.02	1.01		1.01
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	OZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	ΟZ	7.29					0.07	7.36		7.36
Rice Management	,									
RICE MGT. LABOR	hour		4 51	0 70	1.81		0.01	1.82	21 45	1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage	h				2 27		0 00	2 20		2 2 2
HAND LABOR Haul Rice	hour	54.60			2.27		0.02	2.29 54.96		2.29
Dry Rice	bu bu	62.40					0.36			54.96 62.82
Disk Heavy	28 '	02.40	2.68	3.45	4.22		0.42		11.52	21.90
Flood Irr.	acre	2.25	34.67	14.79	22.65		1.16	75.52	67.65	143.17
	2010									
TOTALS		617.29	46.66	33.50	48.67	0.00	11.31	757.43	131.30	888.73

Table 39.E Estimated monthly income and expense flows per acre Provisia straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	795.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	69.75	13.18	10.89	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	117.04	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	1.29	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.60	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.40	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	12.07	5.44	6.34	6.34	10.58	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	10.45	8.72	8.72	8.72	5.03	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.25	8.09	2.18	2.18	10.09	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.77	2.72	0.99	0.90	0.96	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	243.38	164.60	74.77	90.35	143.66	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-243.38	-164.60	-74.77	-90.35	651.94	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-273.67	-438.27	-513.04	-603.39	48.55	38.17

^{*} Lease costs are based on hourly usage costs.

Table 39.F Estimated returns for various price/yield combinations, per acre Provisia straight levee rice Flood irrigated, 27 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100 ODUCT PRI	105	110	115	120	125
Rice			3.82	4.08	4.33		4.84	5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	78.00	bu	-400 -531	-380 -511	-360 -491	-340 -471	-320 -451	-300 -432	-280 -412	-260 -392	-241 -372	-221 -352	-201 -332
60	93.60	bu	-352 -483	-328 -459	-304 -435	-280 -411	-256 -388	-232 -364	-209 -340	-185 -316	-161 -292	-137 -268	-113 -244
70	109.20	bu	-304 -435	-276 -407	-248 -380	-220 -352	-193 -324	-165 -296	-137 -268	-109 -240	-81 -212	-53 -185	-25 -157
80	124.80	bu	-256 -387	-224 -355	-192 -324	-161 -292	-129 -260	-97 -228	-65 -196	-33 -165	-1 -133	29 -101	61 -69
90	140.40	bu	-208 -339	-172 -304	-137 -268	-101 -232	-65 -196	-29 -160	6 -125	41 -89	77 -53	113 -17	149 18
100	156.00	bu	-160 -292	-120 -252	-81 -212	-41 -172	-1 -132	38 -93	77 -53	117 -13	157 26	197 65	237 105
110	171.60	bu	-112 -244	-69 -200	-25 -156	18 -112	62 -69	105 -25	149 18	193 62	237 105	280 149	324 193
120	187.20	bu	-64 -196	-17 -148	30 -100	78 -53	125 -5	173 42	221 90	269 137	316 185	364 233	412 281
130	202.80	bu	-17 -148	34 -96	86 -44	138 6	189 58	241 110	293 161	344 213	396 265	448 317	500 368
140	218.40	bu	30 -100	86 -44	142 10	197 66	253 122	309 177	364 233	420 289	476 345	532 400	587 456
150	234.00	bu	78 -52	138 7	198 66	257 126	317 186	377 245	436 305	496 365	556 424	615 484	675 544

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 40.A Estimated costs per acre Provisia straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	JNIT			AMOUNT	YOUR FARM
		PRICE	QUANTITY	dollars	
DIRECT EXPENSES CUSTOM SPRAY					
App by Air (5 gal) a	appl appl	7.00 9.00	4.5000	31.50 9.00	
	appl	5.50	1.5000	8.25	
Amm Sulfate (21% N) c	cwt cwt	18.66 20.99	0.5000	9.33 10.50	
Urea, Solid (46% N)	cwt ot	19.74 11.06	4.0000	78.96 8.30	
FUNGICIDES	oz	8.88	4.7000	41.74	
	OZ	0.76	10.0000	7.60	
Glyphosate 31bs a.e o	oz ot	0.13 2.25	80.0000	10.40	
Command 3ME p	ot oz	18.17 6.04	1.0000	18.17 12.08	
Provisia c	ΣC	0.85	31.0000	26.35	
Permit	OZ OZ	5.67 21.99	1.0000	5.67 16.49	
INSEČTICIDES	OZ	43.56	0.2500	10.89	
IRRIGATION SUPPLIES	oz s	2.43	3.0000	7.29	
SEED/PLANTS	ft 	0.24	33.0000	7.92	
Rice Seed Trt/Insect 1	lb lbseed	1.23 0.29	77.0000 77.0000	94.71 22.33	
	pt	2.40	0.5000	1.20	
Crop Oil Conc.(Pet.) p	ot ot	1.75 2.86	0.5000 4.0000	0.88 11.44	
	pt pt	5.16 3.30	0.2500 0.1000	1.29 0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice k	ou	0.35	156.0000	54.60	
	ou	0.40	156.0000	62.40	
SURVĒY & MARK LEVEES Survey & Mark Levees a	acre	4.50	0.5000	2.25	
CROP COÑSULTANT Rice Consultant a	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR	nour	14.68	0.5281	7.74	
	nour	14.68	0.1760	2.58	
Special Labor h	nour	9.06 9.06	1.1250 0.0375	10.18	
HAND LABOR	nour	9.06	0.2500	2.27	
	nour	9.06	0.0785	0.71	
Special Labor h	nour	9.06 14.69	0.7000 0.5389	6.34 7.92	
DIESEL FUEL	gal	1.53	5.8180	8.89	
Harvesters	gal gal	1.53 1.53	2.9444 18.7364	4.51 28.67	
REPAIR & MAINTENANCE	acre	8.58	1.0000	8.58	
Tractors	acre acre	3.59 7.24	1.0000	3.59 7.24	
Flood Irr.	acre acre	13.96 11.23	1.0000	13.96 11.23	
TOTAL DIRECT EXPENSES	2010	11.20	1.0000	749.96	
FIXED EXPENSES	acre	18.29	1.0000	18.29	
Tractors	acre acre	21.98 27.72	1.0000	21.98 27.72	
	acre	64.48	1.0000	64.48	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES				882.43	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 40.B Summary of estimated costs and returns per acre Provisia straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	156.0000	795.60	
TOTAL INCOME				795.60	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	104.56	1.0000	104.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	117.04	1.0000	117.04	
ADJUVANTS	acre	15.14	1.0000	15.14	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	54.60	1.0000	54.60	
DRYING	acre	62.40	1.0000	62.40	
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.1625	10.52	
OPERATOR LABOR	hour	14.68	0.7041	10.32	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour	14.69	0.5389	7.92	
DIESEL FUEL	gal	1.53	27.4990	42.07	
REPAIR & MAINTENANCE	acre	33.37	1.0000	33.37	
INTEREST ON OP. CAP.	acre	11.23	1.0000	11.23	
TOTAL DIRECT EXPENSES				749.96	
RETURNS ABOVE DIRECT EXE	PENSES			45.64	
TOTAL FIXED EXPENSES				132.47	
TOTAL SPECIFIED EXPENSES	3			882.43	
RETURNS ABOVE TOTAL SPEC		EXPENSES		-86.83	

Table 40.C Estimated resource use for field operations, per acre Provisia straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	мтн	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								no	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e 2,4-D Amine 4	oz n+					48.0000				
Grain Drill	pt 24 '	MFWD 225	0 078	1.00	Anr	2.0000	0.07	0.07	0.15	0.07
Rice Seed Provisia	lb	111 WD 220	0.070	1.00	1101	65.0000	0.07	0.07	0.10	0.07
Rice Seed Trt/Insect						65.0000				
Roller/Cultipacker	30 '	MFWD 225	0.049	1.00	Apr		0.04	0.04	0.04	0.04
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 31bs a.e	OZ					32.0000				
Command 3ME	pt					1.0000				
Sharpen	ΟZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt			1 00	7	0.5000				
Seed Levees Rice Seed Provisia	1b			1.00	Apr	12.0000				
Rice Seed Trt/Insect						12.0000				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Provisia	OZ					15.5000				
Aim	OZ					1.0000				
Permit	ΟZ					0.7500				
Crop Oil Conc.(Pet.)	pt					2.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt			1 00		0.5000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air Urea, Solid (46% N)	cwt cwt			1.00	May	2.5000				
NBPT	pt					0.7500				
App by Air (10 gal)	appl			1.00	Mav	1.0000				
Provisia	OZ				1	15.5000				
Crop Oil Conc.(Pet.)	pt					2.0000				
Rice Management				1.00	May					
RICE MGT. LABOR	hour								0.10	
App by Air (5 gal)	appl			0.50	Jun	0.5000				
Regiment	OZ					0.2500				
Dyne-A-Pak	pt			1 00	- .	0.2500				
Rice Management RICE MGT. LABOR	hour			1.00	Jun				0.20	
App Fert by Air	cwt			1.00	Jun	1.5000			0.20	
Urea, Solid (46% N)	cwt			1.00	Oun	1.5000				
Rice Management	CWC			1.00	Jul	1.0000				
RICE MGT. LABOR	hour								0.20	
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Flint Extra	OZ					4.7000				
Tilt 3.6 EC	ΟZ					10.0000				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior ZT	ΟZ			1 00	3 .	3.0000				
Rice Management RICE MGT. LABOR	hour			1.00	Aug				0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1 00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055		_		0.17	0.01	0.01	0.00
Handling & Storage		223		1.00	Aug		3.01	○.O±	J. U.	0.00
HAND LABOR	hour				~ 5				0.25	
Haul Rice	bu			1.00	Aug	156.0000				
Dry Rice	bu			1.00	Aug	156.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.10	0.10	1.26	
momat c							0.70	0 70	2 00	0.53
TOTALS							0.70	0.70	2.89	0.53

Table 40.D Estimated costs for field operations, per acre Provisia straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Provisia	lb	79.95					1.60	81.55		81.55
Rice Seed Trt/Insect		18.85	0 00	0 50	1 20		0.38	19.23	0 40	19.23
Roller/Cultipacker	30'	7.00	0.88	0.53	1.39		0.06 0.14	2.86 7.14	2.43	5.29 7.14
App by Air (5 gal) Glyphosate 3lbs a.e	appl oz	4.16					0.14	4.24		4.24
Command 3ME	pt pt	18.17					0.36	18.53		18.53
Sharpen	oz	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees	1.									
Rice Seed Provisia	lb	14.76					0.30	15.06		15.06
Rice Seed Trt/Insect	lbseed	3.48					0.07	3.55		3.55
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Provisia	OZ	13.18					0.26	13.44		13.44
Aim	OZ	5.67					0.11	5.78		5.78
Permit	OZ	16.49					0.33	16.82		16.82
Crop Oil Conc.(Pet.)	_	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13	7.63		7.63
Amm Sulfate (21% N)	cwt	9.33					0.16	9.49		9.49
DAP	cwt	10.50					0.18	10.68		10.68
Rice Consultant	acre cwt	8.00 18.75					0.13	8.13 19.06		8.13 19.06
App Fert by Air Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.02	8.44		8.44
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Provisia	OZ	13.18					0.22	13.40		13.40
Crop Oil Conc.(Pet.)	pt	5.72					0.10	5.82		5.82
Rice Management	-									
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Regiment	OZ	10.89					0.15	11.04		11.04
Dyne-A-Pak	pt	1.29					0.02	1.31		1.31
Rice Management										
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App Fert by Air	cwt	11.25					0.15	11.40		11.40
Urea, Solid (46% N)	cwt	29.61					0.39	30.00		30.00
Rice Management	hour				1.81		0.02	1.83		1.83
RICE MGT. LABOR	hour	7.00			1.01		0.02	7.07		7.07
App by Air (5 gal) Flint Extra	appl oz	41.74					0.42	42.16		42.16
Tilt 3.6 EC	OZ OZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33					0.00	0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage										
HAND LABOR	hour				2.27		0.02	2.29		2.29
Haul Rice	bu	54.60					0.36	54.96		54.96
Dry Rice	bu	62.40					0.42	62.82		62.82
Disk Heavy	28'	10 15	2.68	3.45	4.22		0.03	10.38	11.52	21.90
Flood Irr.	acre	10.17	30.08	14.66	12.06 		1.08	68.05	68.82	136.87
TOTALS		625.21	42.07	33.37	38.08	0.00			132.47	882.43

Table 40.E Estimated monthly income and expense flows per acre Provisia straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	795.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	69.75	13.18	10.89	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	117.04	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	1.29	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.60	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.40	0.00
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	9.90	2.72	3.62	3.62	10.32	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	9.50	7.48	7.48	7.48	5.11	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	5.31	8.01	2.10	2.10	10.14	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.87	2.65	0.93	0.86	0.95	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	248.34	160.49	70.67	86.27	143.52	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-248.34	-160.49	-70.67	-86.27	652.08	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-278.63	-439.12	-509.79	-596.06	56.02	45.64

^{*} Lease costs are based on hourly usage costs.

Table 40.F Estimated returns for various price/yield combinations, per acre Provisia straight levee multi inlet rice Flood irrigated, 23 ac-in., Mississippi, 2021

		-						-PERCENT-					
PRODUCT			75	80	85	90	95	100 ODUCT PRI	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59		5.10	5.35	5.61	5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	78.00	bu	-392 -525	-372 -505	-352 -485	-333 -465	-313 -445	-293 -425	-273 -405	-253 -385	-233 -366	-213 -346	-193 -326
60	93.60	bu	-344 -477	-320 -453	-297 -429	-273 -405	-249 -381	-225 -357	-201 -334	-177 -310	-153 -286	-130 -262	-106 -238
70	109.20	bu	-296 -429	-269 -401	-241 -373	-213 -345	-185 -318	-157 -290	-129 -262	-102 -234	-74 -206	-46 -178	-18 -150
80	124.80	bu	-249 -381	-217 -349	-185 -317	-153 -286	-121 -254	-89 -222	-58 -190	-26 -158	5 -126	37 -95	69 -63
90	140.40	bu	-201 -333	-165 -297	-129 -262	-93 -226	-57 -190	-22 -154	13 -118	49 -83	85 -47	121 -11	156 24
100	156.00	bu	-153 -285	-113 -245	-73 -206	-33 -166	5 -126	45 -86	85 -47	125 -7	164 32	204 72	244 112
110	171.60	bu	-105 -237	-61 -194	-17 -150	25 -106	69 -62	113 -19	157 24	200 68	244 112	288 155	332 199
120	187.20	bu	-57 -189	-9 -142	37 -94	85 -46	133 0	181 48	228 96	276 144	324 191	372 239	419 287
130	202.80	bu	-9 -142	42 -90	93 -38	145 13	197 64	248 116	300 168	352 219	404 271	455 323	507 375
140	218.40	bu	38 -94	94 -38	149 17	205 72	261 128	316 184	372 239	428 295	483 351	539 407	595 462
150	234.00	bu	86 -46	145 13	205 73	265 132	324 192	384 252	444 311	503 371	563 431	623 490	682 550

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 41.A Estimated costs per acre Provisia straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
DIRECT EXPENSES CUSTOM SPRAY		dollars		dollars	
App by Air (5 gal) App by Air (10 gal) App by Air (3 gal)	appl appl appl	7.00 9.00 5.50	4.5000 1.0000 1.5000	31.50 9.00 8.25	
FERTILIZERS Amm Sulfate (21% N) DAP Urea, Solid (46% N) NBPT	cwt cwt cwt pt	18.66 20.99 19.74 11.06	0.5000 0.5000 4.0000 0.7500	9.33 10.50 78.96 8.30	
FUNGICIDES Flint Extra Tilt 3.6 EC HERBICIDES	OZ OZ	8.88 0.76	4.7000	41.74 7.60	
Glyphosate 3lbs a.e 2,4-D Amine 4 Command 3ME Sharpen Provisia Aim Permit	oz pt pt oz oz oz	0.13 2.25 18.17 6.04 0.85 5.67 21.99	80.0000 2.0000 1.0000 2.0000 31.0000 0.7500	10.40 4.50 18.17 12.08 26.35 5.67 16.49	
Regiment INSECTICIDES Warrior ZT	OZ OZ	43.56	0.2500 3.0000	10.89	
SEED/PLANTS Rice Seed Provisia Rice Seed Trt/Insect	lb lbseed	1.23 0.29	77.0000 77.0000	94.71 22.33	
ADJUVANTS MSO Class Act NG Crop Oil Conc.(Pet.) Dyne-A-Pak Surfactant	pt pt pt pt pt	2.40 1.75 2.86 5.16 3.30	0.5000 0.5000 4.0000 0.2500 0.1000	1.20 0.88 11.44 1.29 0.33	
CUSTOM FERTILIZE App Fert by Air	cwt	7.50	5.0000	37.50	
HAULING Haul Rice	bu	0.35	156.0000	54.60	
DRYING Dry Rice	bu	0.40	156.0000	62.40	
CROP CONSULTANT Rice Consultant	acre	8.00	1.0000	8.00	
SOIL TEST Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR Tractors Harvesters	hour hour	14.68 14.68	0.4228 0.1760	6.20 2.58	
IRRIGATE LABOR Special Labor	hour	9.06	1.0500	9.53	
HAND LABOR Special Labor Implements	hour hour	9.06 9.06	0.2500 0.0785	2.27 0.71	
RICE MGT. LABOR Special Labor UNALLOCATED LABOR DIESEL FUEL	hour hour	9.06 14.69	0.7000 0.5389	6.34 7.92	
Tractors Harvesters Flood Irr.	gal gal gal	1.53 1.53 1.53	4.8970 2.9444 15.4779	7.48 4.51 23.68	
REPAIR & MAINTENANCE Implements Tractors Harvesters Flood Irr.	acre acre acre	8.40 3.07 7.24 11.80	1.0000 1.0000 1.0000 1.0000	8.40 3.07 7.24 11.80	
INTEREST ON OP. CAP. TOTAL DIRECT EXPENSES	acre	10.83	1.0000	10.83 727.60	
FIXED EXPENSES Implements Tractors Harvesters	acre acre acre	17.16 18.77 27.72	1.0000 1.0000 1.0000	17.16 18.77 27.72	
Flood Irr.	acre	64.16	1.0000	64.16	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES				855.41	

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Table 41.B Summary of estimated costs and returns per acre Provisia straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	5.10	156.0000	795.60	
TOTAL INCOME				795.60	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	48.75	1.0000	48.75	
FERTILIZERS	acre	107.09	1.0000	107.09	
FUNGICIDES	acre	49.34	1.0000	49.34	
HERBICIDES	acre	104.56	1.0000	104.56	
INSECTICIDES	acre	7.29	1.0000	7.29	
SEED/PLANTS	acre	117.04	1.0000	117.04	
ADJUVANTS	acre	15.14	1.0000	15.14	
CUSTOM FERTILIZE	acre	37.50	1.0000	37.50	
HAULING	acre	54.60	1.0000	54.60	
DRYING	acre	62.40	1.0000	62.40	
CROP CONSULTANT	acre	8.00	1.0000	8.00	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.3285	2.98	
IRRIGATE LABOR	hour	9.06	1.0500	9.53	
OPERATOR LABOR	hour	14.68	0.5988	8.78	
RICE MGT. LABOR	hour	9.06	0.7000	6.34	
UNALLOCATED LABOR	hour		0.5389	7.92	
DIESEL FUEL	gal	1.53	23.3194	35.67	
REPAIR & MAINTENANCE	acre	30.51	1.0000	30.51	
INTEREST ON OP. CAP.	acre	10.83	1.0000	10.83	
TOTAL DIRECT EXPENSES				727.60	
RETURNS ABOVE DIRECT EXP	ENSES			68.00	
TOTAL FIXED EXPENSES				127.81	
TOTAL SPECIFIED EXPENSES				855.41	
RETURNS ABOVE TOTAL SPEC	IFIED	EXPENSES		-59.81	

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

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Table 41.C Estimated resource use for field operations, per acre
Provisia straight levee-zero grade rice
Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								hoi	urs	
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.09	0.08
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		0.03	0.03	0.03	0.03
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 31bs a.e	ΟZ					48.0000				
2,4-D Amine 4	pt				_	2.0000	0 0 0		0.45	
Grain Drill	24'	MFWD 225	0.078	1.00	Apr	CF 0000	0.07	0.07	0.15	0.07
Rice Seed Provisia Rice Seed Trt/Insect	lb lbseed					65.0000 65.0000				
Roller/Cultipacker	30'	MFWD 225	0.049	1.00	Apr	03.0000	0.04	0.04	0.04	0.04
App by Air (5 gal)	appl	MEWD 225	0.045	1.00	_	1.0000	0.04	0.04	0.04	0.04
Glyphosate 3lbs a.e	OZ			1.00	11PI	32.0000				
Command 3ME	pt					1.0000				
Sharpen	OZ					2.0000				
MSO	pt					0.5000				
Class Act NG	pt					0.5000				
Seed Levees				1.00	Apr					
Rice Seed Provisia	lb					12.0000				
Rice Seed Trt/Insect	lbseed					12.0000				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Provisia	ΟZ					15.5000				
Aim	ΟZ					1.0000				
Permit	OZ D+					0.7500				
Crop Oil Conc. (Pet.) App Fert by Air	pt cwt			1.00	Marr	2.0000 1.0000				
Amm Sulfate (21% N)	cwt			1.00	на у	0.5000				
DAP	cwt					0.5000				
Rice Consultant	acre			1.00	Mav	1.0000				
App Fert by Air	cwt			1.00	-	2.5000				
Urea, Solid (46% N)	cwt					2.5000				
NBPT	pt					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Provisia	ΟZ					15.5000				
Crop Oil Conc. (Pet.)	pt			1 00		2.0000				
Rice Management	h			1.00	Мау				0 10	
RICE MGT. LABOR App by Air (5 gal)	hour appl			0.50	Jun	0.5000			0.10	
Regiment (5 gai)	OZ			0.50	oun	0.2500				
Dyne-A-Pak	pt					0.2500				
Rice Management	Po			1.00	Jun	0.2000				
RICE MGT. LABOR	hour								0.20	
App Fert by Air	cwt			1.00	Jun	1.5000				
Urea, Solid (46% N)	cwt					1.5000				
Rice Management				1.00	Jul					
RICE MGT. LABOR	hour								0.20	
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Flint Extra	ΟZ					4.7000				
Tilt 3.6 EC	OZ					10.0000				
Surfactant	pt			1.50	T., 1	0.1000				
App by Air (3 gal) Warrior ZT	appl oz			1.50	Jul	1.5000 3.0000				
Rice Management	02			1.00	Διισ	3.0000				
RICE MGT. LABOR	hour			1.00	1149				0.20	
Header - Draper (SL)	25' Rigid	325 hp	0.176	1.00	Aug		0.17	0.17	0.17	0.15
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	_		0.01	0.01	0.01	0.00
Handling & Storage				1.00	Aug					
HAND LABOR	hour								0.25	
Haul Rice	bu			1.00	Aug	156.0000				
Dry Rice	bu			1.00	_	156.0000				_
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep	1 0000	0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000			1.05	
TOTALS							0.59	0.59	2 67	0.53
TOTUTO							0.39	0.39	2.67	0.55

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year.

Table 41.D Estimated costs for field operations, per acre Provisia straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					(dollars-				
Soil Test	acre	3.33					0.13	3.46		3.46
Field Cultivate Fld	32 '		1.65	1.69	2.60		0.24	6.18	8.28	14.46
Harrow - Folding	40'		0.69	0.57	1.08		0.09	2.43	2.14	4.57
App by Air (5 gal)	appl	7.00					0.19	7.19		7.19
Glyphosate 31bs a.e	OZ	6.24					0.17	6.41		6.41
2,4-D Amine 4	pt	4.50					0.12	4.62		4.62
Grain Drill	24'		1.39	2.54	2.90		0.14	6.97	7.12	14.09
Rice Seed Provisia	lb	79.95					1.60	81.55		81.55
Rice Seed Trt/Insect		18.85	0 00	0 50	1 20		0.38	19.23	0 40	19.23
Roller/Cultipacker	30'	7.00	0.88	0.53	1.39		0.06 0.14	2.86 7.14	2.43	5.29 7.14
App by Air (5 gal) Glyphosate 3lbs a.e	appl oz	4.16					0.14	4.24		4.24
Command 3ME	pt	18.17					0.36	18.53		18.53
Sharpen	OZ	12.08					0.24	12.32		12.32
MSO	pt	1.20					0.02	1.22		1.22
Class Act NG	pt	0.88					0.02	0.90		0.90
Seed Levees	-									
Rice Seed Provisia	lb	14.76					0.30	15.06		15.06
Rice Seed Trt/Insect	lbseed	3.48					0.07	3.55		3.55
App by Air (5 gal)	appl	7.00					0.14	7.14		7.14
Provisia	ΟZ	13.18					0.26	13.44		13.44
Aim	OZ	5.67					0.11	5.78		5.78
Permit	OZ	16.49					0.33	16.82		16.82
Crop Oil Conc.(Pet.)	=	5.72					0.11	5.83		5.83
App Fert by Air	cwt	7.50					0.13 0.16	7.63		7.63
Amm Sulfate (21% N) DAP	cwt cwt	9.33 10.50					0.18	9.49 10.68		9.49 10.68
Rice Consultant	acre	8.00					0.10	8.13		8.13
App Fert by Air	cwt	18.75					0.31	19.06		19.06
Urea, Solid (46% N)	cwt	49.35					0.82	50.17		50.17
NBPT	pt	8.30					0.14	8.44		8.44
App by Air (10 gal)	appl	9.00					0.15	9.15		9.15
Provisia	OZ	13.18					0.22	13.40		13.40
Crop Oil Conc.(Pet.)	pt	5.72					0.10	5.82		5.82
Rice Management										
RICE MGT. LABOR	hour				0.91		0.02	0.93		0.93
App by Air (5 gal)	appl	3.50					0.05	3.55		3.55
Regiment	OZ	10.89					0.15	11.04		11.04
Dyne-A-Pak	pt	1.29					0.02	1.31		1.31
Rice Management	la				1 01		0 00	1 02		1 00
RICE MGT. LABOR	hour	11.25			1.81		0.02 0.15	1.83 11.40		1.83 11.40
App Fert by Air Urea, Solid (46% N)	cwt cwt	29.61					0.13	30.00		30.00
Rice Management	CWC	27.01					0.33	30.00		30.00
RICE MGT. LABOR	hour				1.81		0.02	1.83		1.83
App by Air (5 gal)	appl	7.00					0.07	7.07		7.07
Flint Extra	OZ	41.74					0.42	42.16		42.16
Tilt 3.6 EC	OZ	7.60					0.08	7.68		7.68
Surfactant	pt	0.33						0.33		0.33
App by Air (3 gal)	appl	8.25					0.08	8.33		8.33
Warrior ZT	OZ	7.29					0.07	7.36		7.36
Rice Management										
RICE MGT. LABOR	hour				1.81		0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		4.51		4.91		0.13	19.27	31.45	50.72
Grain Cart Rice	700 bu		0.19	0.21	0.31			0.71	0.71	1.42
Handling & Storage	h				0 07		0 00	0 00		2 22
HAND LABOR Haul Rice	hour	54 60			2.27		0.02	2.29		2.29
Dry Rice	bu bu	54.60 62.40					0.36 0.42	54.96 62.82		54.96 62.82
Disk Heavy	28 '	02.40	2.68	3.45	4.22		0.42	10.38	11.52	
Flood Irr.	acre		23.68	11.80	9.53		0.68	45.69		109.85
TOTALS		615.04	35.67	30.51	35.55	0.00	10.83	727.60	127.81	855.41

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year.

Table 41.E Estimated monthly income and expense flows per acre Provisia straight levee-zero grade rice Flood irrigated, 19 ac-in., Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						doll	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	795.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	14.00	9.00	3.50	15.25	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.48	29.61	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.34	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.74	0.00	69.75	13.18	10.89	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	117.04	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.80	5.72	1.29	0.33	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.25	11.25	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.60	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.40	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.68	0.00	0.00	0.00	0.00	0.00	7.01	3.18	4.08	4.08	9.30	4.22
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.34	0.00	0.00	0.00	0.00	0.00	7.26	6.23	6.23	6.23	4.70	2.68
REPAIR & MAINTENANCE	2.26	0.00	0.00	0.00	0.00	0.00	4.31	7.46	1.55	1.55	9.93	3.45
INTEREST ON OP. CAP.	0.46	0.00	0.00	0.00	0.48	0.00	4.54	2.63	0.91	0.84	0.94	0.03
TOTAL DIRECT EXPENSES	12.07	0.00	0.00	0.00	18.22	0.00	231.71	159.13	69.31	84.91	141.87	10.38
NET INCOME	-12.07	0.00	0.00	0.00	-18.22	0.00	-231.71	-159.13	-69.31	-84.91	653.73	-10.38
NET INCOME TO DATE	-12.07	-12.07	-12.07	-12.07	-30.29	-30.29	-262.00	-421.13	-490.44	-575.35	78.38	68.00

Note: Cost of production estimates are based on 2020 input prices. Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

* Lease costs are based on hourly usage costs.

Table 41.F Estimated returns for various price/yield combinations, per acre
Provisia straight levee-zero grade rice
Flood irrigated, 19 ac-in., Mississippi, 2021

		_						-PERCENT-					
PRODUCT			75	80	85	90	95	100 ODUCT PRI	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59		5.10	5.35		5.86	6.12	6.37
PERCENT	YIELD	UNIT -					d	ollars					
50	78.00	bu	-370	-350	-330	-310	-290	-270	-251	-231	-211	-191	-171
30	70.00	Du	-498	-478	-458	-438	-418	-398	-378	-358	-339	-319	-299
60	93.60	bu	-322	-298	-274	-250	-226	-203	-179	-155	-131	-107	-83
			-450	-426	-402	-378	-354	-330	-307	-283	-259	-235	-211
70	109.20	bu	-274	-246	-218	-191	-163	-135	-107	-79	-51	-23	3
			-402	-374	-346	-318	-291	-263	-235	-207	-179	-151	-123
80	124.80	bu	-226	-194	-163	-131	-99	-67	-35	-3	27	59	91
			-354	-322	-290	-259	-227	-195	-163	-131	-99	-68	-36
90	140.40	bu	-178	-142	-107	-71	-35	0	36	71	107	143	179
			-306	-270	-234	-199	-163	-127	-91	-55	-20	15	51
100	156.00	bu	-130	-91	-51	-11	28	68	107	147	187	227	266
			-258	-218	-179	-139	-99	-59	-20	19	59	99	139
110	171.60	bu	-83	-39	4	48	92	135	179	223	267	310	354
			-210	-167	-123	-79	-35	7	51	95	139	183	226
120	187.20	bu	-35	12	60	108	155	203	251	299	346	394	442
			-162	-115	-67	-19	28	75	123	171	218	266	314
130	202.80	bu	12	64	116	167	219	271	323	374	426	478	529
			-115	-63	-11	40	91	143	195	246	298	350	402
140	218.40	bu	60	116	172	227	283	339	394	450	506	561	617
			-67	-11	44	99	155	211	267	322	378	434	489
150	234.00	bu	108	168	227	287	347	406	466	526	585	645	705
			-19	40	100	159	219	279	338	398	458	517	577

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 42.A Estimated costs per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8 row-38 inch
All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES FUNGICIDES					
Bravo Weather Stick	pt	5.30	5.5000	29.15	
Abound	OZ	1.83	36.0000	65.88	
Tebuconazole 3.6	OZ	0.71	7.2000	5.11	
HERBICIDES	02	0.71	7.2000	9.11	
Glyphosate 31bs a.e	pt	2.11	4.0000	8.44	
Dual Magnum	pt	13.33	1.0000	13.33	
Valor SX	OZ	4.51	3.0000	13.53	
Storm	pt	11.91	1.5000	17.87	
Cadre	OZ	2.90	4.0000	11.60	
Butyrac 200 (2,4-DB)		3.64	2.0000	7.28	·
Select Max	pt	12.74	1.0000	12.74	
INSECTICIDES	рt	12.74	1.0000	12.74	
Admire Pro	0.7	1.80	0 0000	16.20	
	OZ		9.0000		
Acephate 90%	lb	6.94	0.1375	0.95	
SEED/PLANTS		0 0 0	105 0000	100 55	
Peanut Seed	lb	0.87	125.0000	108.75	
ADJUVANTS					
Crop Oil Conc.(Veg.)	pt	2.90	6.0000	17.40	·
CLEANING					
Cleaning Peanuts	ton	18.00	1.6200	29.16	
DRYING					\ <u></u>
Dry Peanuts	ton	24.00	1.1400	27.36	
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3330	15.80	
INOCULANT					
Optimize LIFT	ΟZ	0.53	14.8000	7.84	
SOIL TEST	02	0.55	11.0000	7.01	
Soil Test	acre	10.00	0.3330	3.33	
	acre	10.00	0.3330	3.33	·
OPERATOR LABOR	la a	14 (0	1 () 1 (22.04	
Tractors	hour	14.68	1.6246	23.84	
Self-Propelled	hour	14.68	0.1983	2.92	
HAND LABOR					
Implements	hour	9.06	0.1207	1.09	
Self-Propelled	hour	9.06	0.0991	0.90	
UNALLOCATED LABOR	hour	14.70	1.4583	21.45	
DIESEL FUEL					
Tractors	gal	1.53	17.7898	27.22	
Self-Propelled	gal	1.53	1.7850	2.70	·
REPAIR & MAINTENANCE	_				
Implements	acre	13.01	1.0000	13.01	
Tractors	acre	11.13	1.0000	11.13	
Self-Propelled	acre	2.25	1.0000	2.25	
INTEREST ON OP. CAP.	acre	5.69	1.0000	5.69	·
INIBIABIT ON OI. CAI.	acre	3.03	1.0000		
TOTAL DIRECT EXPENSES				523.92	
				323.92	
FIXED EXPENSES		41 01	1 0000	41 01	
Implements	acre	41.21	1.0000	41.21	
Tractors	acre	67.88	1.0000	67.88	
Self-Propelled	acre	14.63	1.0000	14.63	
TOTAL FIXED EXPENSES				123.72	
TOTAL SPECIFIED EXPENSES				647.64	

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year. 60% of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 42.B Summary of estimated costs and returns per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8 row-38 inch
All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Peanut Runner	ton	400.00	1.9000	760.00	
TOTAL INCOME				760.00	
DIRECT EXPENSES					
FUNGICIDES	acre	100.14	1.0000	100.14	
HERBICIDES	acre	84.79	1.0000	84.79	
INSECTICIDES	acre	17.15	1.0000	17.15	
SEED/PLANTS	acre	108.75	1.0000	108.75	
ADJUVANTS	acre	17.40	1.0000	17.40	
CLEANING	acre	29.16	1.0000	29.16	
DRYING	acre	27.36	1.0000	27.36	
CUSTOM LIME	acre	15.80	1.0000	15.80	
INOCULANT	acre	7.84	1.0000	7.84	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.2199	1.99	
OPERATOR LABOR	hour	14.68	1.8229	26.76	
UNALLOCATED LABOR	hour	14.70	1.4583	21.45	
DIESEL FUEL	gal	1.53	19.5748	29.92	
REPAIR & MAINTENANCE	acre	26.39	1.0000	26.39	
INTEREST ON OP. CAP.	acre	5.69	1.0000	5.69	
TOTAL DIRECT EXPENSES				523.92	
RETURNS ABOVE DIRECT EXP	ENSES			236.08	
TOTAL FIXED EXPENSES				123.72	
TOTAL SPECIFIED EXPENSES	}			647.64	
RETURNS ABOVE TOTAL SPEC	IFIED	EXPENSES		112.36	

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 42.C Estimated resource use for field operations, per acre Peanut - runner, 1.9 ton (3800 lb) yield, 8 row-38 inch All Areas, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES	MTH	INPUT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
OPERATING INPUT	ON11	2176		OVER	М1П	AMOUNI				
								ho	urs	
Soil Test	acre			0.33	Apr	0.3330				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Glyphosate 3lbs a.e	pt				-	4.0000				
Lime (Spread)	ton			0.33	Apr	0.3330				
Bed-Rip/Disk Fold.	8R-38	MFWD 190	0.073	1.00	May		0.07	0.07	0.07	0.05
Peanut Plt&Pre Rigid	8R-38	MFWD 225	0.120	1.00	May		0.12	0.12	0.24	0.09
Peanut Seed	lb					125.0000				
Optimize LIFT	OZ					14.8000				
Admire Pro	OZ					9.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	May			0.01	0.02	0.01
Dual Magnum	pt					1.0000				
Valor SX	OZ					3.0000				
Sprayer 600-750gal	60' 175hp		0.017	0.25	May			0.00	0.00	0.00
Acephate 90%	lb					0.1375				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jun	4 5000		0.01	0.02	0.01
Storm	pt					1.5000				
Cadre	OZ					4.0000				
Butyrac 200 (2,4-DB)	pt					1.0000				
Crop Oil Conc.(Veg.)	pt		0 017	1 00	- .	2.0000		0.01	0.02	0.01
Sprayer 600-750gal Bravo Weather Stick	60' 175hp		0.017	1.00	Jun	1.5000		0.01	0.02	0.01
Sprayer 600-750gal	pt 60' 175hp		0.017	1 00	Jul	1.3000		0.01	0.02	0.01
Abound	00 17311p		0.017	1.00	our	18.0000		0.01	0.02	0.01
Sprayer 600-750gal	60' 175hp		0.017	1 00	Jul	10.0000		0.01	0.02	0.01
Butyrac 200 (2,4-DB)	=		0.017	1.00	our	1.0000		0.01	0.02	0.01
Crop Oil Conc. (Veq.)	pt					2.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul	2.0000		0.01	0.02	0.01
Select Max	pt		0.017	1.00	041	1.0000		0.01	0.02	0.01
Crop Oil Conc. (Veg.)	pt					2.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul			0.01	0.02	0.01
Bravo Weather Stick	pt					1.0000				
Tebuconazole 3.6	OZ					7.2000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Aug			0.01	0.02	0.01
Abound	OZ				_	18.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Aug			0.01	0.02	0.01
Bravo Weather Stick	pt					1.5000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Sep			0.01	0.02	0.01
Bravo Weather Stick	pt					1.5000				
Peanut Dig/Invertor	4R-38	MFWD 190	0.186	1.00	Sep		0.18	0.18	0.18	0.14
Peanut Harvester	4R-38	MFWD 225	0.934	1.00	Sep		0.93	0.93	0.93	0.74
Dry Peanuts	ton					1.1400				
Cleaning Peanuts	ton					1.6200				
Peanut Dump Cart	6-Row	MFWD 190	0.310	1.00	Sep		0.31	0.31	0.31	0.24
TOTALS							1.82	1.62	2.04	1.45

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

60% of all peanuts harvested need drying.

85% of all peanuts harvested need cleaning.

Table 42.D Estimated costs for field operations, per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8 row-38 inch
All Areas, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test		2 22					0.07	3.40		2 40
	acre	3.33	0.24	0.20	0 55				1 20	3.40 2.31
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	
Glyphosate 3lbs a.e	_	8.44					0.17	8.61 16.12		8.61 16.12
Lime (Spread) Bed-Rip/Disk Fold.	ton 8R-38	15.80	1.09	0.61	1.93		0.32	3.69	3.47	7.16
Peanut Plt&Pre Rigid			2.14	2.95	4.28		0.06	9.53	9.17	18.70
Peanut Seed	lb	108.75	2.14	2.95	4.20		1.81		9.11	110.56
Optimize LIFT	OZ	7.84					0.13	7.97		7.97
Admire Pro	OZ OZ	16.20					0.13	16.47		16.47
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	2.31
Dual Magnum	-	13.33	0.24	0.20	0.55		0.02		1.30	13.55
Valor SX	pt oz	13.53					0.22	13.76		13.76
Sprayer 600-750gal	60' 175hp		0.06	0.05	0.13		0.23	0.24	0.33	0.57
Acephate 90%	lb	0.95	0.00	0.03	0.13		0.02	0.24	0.55	0.97
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.00	1.30	2.30
Storm	pt	17.87	0.24	0.20	0.55		0.01	18.11	1.30	18.11
Cadre	ρι oz	11.60					0.15	11.75		11.75
Butyrac 200 (2,4-DB)		3.64					0.15	3.69		3.69
Crop Oil Conc. (Veg.)	-	5.80					0.03	5.88		5.88
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.00	1.00	1.30	2.30
Bravo Weather Stick	-	7.95	0.24	0.20	0.55		0.11	8.06	1.50	8.06
Sprayer 600-750gal	pt 60' 175hp		0.24	0.20	0.55		0.11	1.00	1.30	2.30
Abound	00 17311p	32.94	0.24	0.20	0.55		0.33	33.27	1.30	33.27
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Butyrac 200 (2,4-DB)	-	3.64	0.24	0.20	0.55		0.01	3.68	1.50	3.68
Crop Oil Conc. (Veg.)	-	5.80					0.04	5.86		5.86
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Select Max	pt	12.74	0.24	0.20	0.55		0.13	12.87	1.50	12.87
Crop Oil Conc. (Veg.)		5.80					0.15	5.86		5.86
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	pt	5.30	0.24	0.20	0.55		0.05	5.35	1.50	5.35
Tebuconazole 3.6	OZ	5.11					0.05	5.16		5.16
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.03	1.00	1.30	2.30
Abound	OZ 17511p	32.94	0.24	0.20	0.55		0.22	33.16	1.50	33.16
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	pt	7.95	0.24	0.20	0.55		0.05	8.00	1.50	8.00
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.05	0.99	1.30	2.29
Bravo Weather Stick	pt	7.95	0.24	0.20	0.55		0.03	7.98	1.50	7.98
Peanut Dig/Invertor	4R-38	7.55	2.79	2.68	4.92		0.03	10.42	8.67	19.09
Peanut Harvester	4R-38		16.56	15.01	24.70		0.19			128.90
Dry Peanuts	ton	27.36	10.00	10.01	21.70		0.19	27.45	, 2 . 11	27.45
Cleaning Peanuts	ton	29.16					0.10	29.26		29.26
Peanut Dump Cart		27.10	4.64	2.89	8.19		0.05	15.77	15.34	31.11
TOTALS		411.72	29.92	26.39	50.20	0.00	5.69	523.92	123.72	647.64

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 42.E Estimated monthly income and expense flows per acre Peanut - runner, 1.9 ton (3800 lb) yield, 8 row-38 inch All Areas, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	760.00
DIRECT EXPENSES												
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.95	43.35	40.89	7.95
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	8.44	26.86	33.11	16.38	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.15	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108.75	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.80	11.60	0.00	0.00
CLEANING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.16
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.36
CUSTOM LIME	0.00	0.00	0.00	0.00	0.00	0.00	15.80	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.84	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	3.33	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.55	6.89	1.10	2.20	1.10	38.36
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.24	3.53	0.48	0.96	0.48	24.23
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.20	3.81	0.40	0.80	0.40	20.78
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.00	0.00	0.00	0.58	2.92	0.65	0.76	0.29	0.49
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	0.00	0.00	0.00	29.14	177.75	49.49	76.05	43.16	148.33
NET INCOME	0.00	0.00	0.00	0.00	0.00	0.00	-29.14	-177.75	-49.49	-76.05	-43.16	611.67
NET INCOME TO DATE	0.00	0.00	0.00	0.00	0.00	0.00	-29.14	-206.89	-256.38	-332.43	-375.59	236.08

Fertilizer recommendations are based on the nutrients that the peanut crop removes.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying.

85% of all peanuts harvested need cleaning.

^{*} Lease costs are based on hourly usage costs.

Table 42.F Estimated returns for various price/yield combinations, per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8 row-38 inch
All Areas, Mississippi, 2021

								PERCENT					
PRODUCT			75	80	85	90	95 P	100	105		115	120	125
Peanut R	Runner		300.00	320.00								480.00	500.00
PERCENT	YIELD	UNIT						dollars					
50	0.95	ton	-210 -334	-191 -315	-172 -296	-153 -277	-134 -258	-115 -239	-96 -220	-77 -201	-58 -182	-39 -163	-20 -144
60	1.14	ton	-159 -282	-136 -260	-113 -237	-90 -214	-68 -191	-45 -168	-22 -146	0 -123	23 -100	45 -77	68 -54
70	1.33	ton	-107 -231	-81 -205	-54 -178	-28 -151	-1 -125	25 -98	51 -72	78 -45	104 -18	131 7	158 34
80	1.52	ton	-56 -180	-26 -149	4 -119	34 -89	65 -58	95 -28	125 2	156 32	186 62	217 93	247 123
90	1.71	ton	-5 -128	28 -94	63 -60	97 -26	131 7	165 42	199 76	234 110	268 144	302 178	336 213
100	1.90	ton	46 -77	84 -39	122 -1	160 36	198 74	236 112	274 150	312 188	350 226	388 264	426 302
110	2.09	ton	97 - 26	139 15	181 57	222 99	264 140	306 182	348 224	390 266	431 308	473 349	515 391
120	2.28	ton	148 25	194 70	239 116	285 161	331 207	376 253	422 298	467 344	513 389	559 435	604 481
130	2.47	ton	200 76	249 125	298 175	348 224	397 273	447 323	496 372	545 422	595 471	644 520	694 570
140	2.66	ton	251 127	304 180	357 234	410 287	464 340	517 393	570 446	623 500	676 553	730 606	783 659
150	2.85	ton	302 179	359 236	416 293	473 350	530 407	587 464	644 521	701 578	758 635	815 692	872 749

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices.

Only the product listed has been varied to calculate net returns.

Table 43.A Estimated costs per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8R 38" Twin
All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
I I EM	ONII	FRICE	QUANTITI	AMOUNT	TOOK FARM
DIDECE EVDENCES		dollars		dollars	
DIRECT EXPENSES FUNGICIDES					
Bravo Weather Stick	pt	5.30	5.5000	29.15	
Abound	OZ	1.83	36.0000	65.88	
Tebuconazole 3.6	OZ	0.71	7.2000	5.11	·
HERBICIDES					
Glyphosate 31bs a.e	pt	2.11	4.0000	8.44	
Dual Magnum	pt	13.33	1.0000	13.33	
Valor SX	ΟZ	4.51	3.0000	13.53	
Storm	pt	11.91	1.5000	17.87	
Cadre	OZ n+	2.90	4.0000	11.60	
Butyrac 200 (2,4-DB) Select Max	pt pt	3.64 12.74	1.0000	7.28 12.74	
INSECTICIDES	рt	12.74	1.0000	12.74	
Admire Pro	OZ	1.80	9.0000	16.20	
Acephate 90%	lb	6.94	0.1375	0.95	
SEED/PLANTS					
Peanut Seed	lb	0.87	125.0000	108.75	
ADJUVANTS					
Crop Oil Conc.(Veg.)	pt	2.90	6.0000	17.40	
CLEANING					
Cleaning Peanuts	ton	18.00	1.6200	29.16	
DRYING					
Dry Peanuts	ton	24.00	1.1400	27.36	
CUSTOM LIME				4 = 00	
Lime (Spread)	ton	47.45	0.3330	15.80	
INOCULANT		0 52	20 6000	15 60	
Optimize LIFT	ΟZ	0.53	29.6000	15.69	
SOIL TEST Soil Test	2000	10.00	0.3330	3.33	
OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors	hour	14.68	1.6246	23.84	
Self-Propelled	hour	14.68	0.1983	2.92	
HAND LABOR	110 01 1	11.00	0.1300	2.32	
Implements	hour	9.06	0.1207	1.09	
Self-Propelled	hour	9.06	0.0991	0.90	
UNALLOCATED LABOR	hour	14.70	1.4583	21.45	
DIESEL FUEL					·
Tractors	gal	1.53	17.7898	27.22	
Self-Propelled	gal	1.53	1.7850	2.70	
REPAIR & MAINTENANCE					
Implements	acre	16.76	1.0000	16.76	
Tractors	acre	11.13	1.0000	11.13	
Self-Propelled	acre	2.25	1.0000	2.25	
INTEREST ON OP. CAP.	acre	5.88	1.0000	5.88	
TOTAL DIRECT EXPENSES FIXED EXPENSES				535.71	
Implements	acre	48.04	1.0000	48.04	
Tractors	acre	67.88	1.0000	67.88	
Self-Propelled	acre	14.63	1.0000	14.63	
1 -	-		-		
TOTAL FIXED EXPENSES				130.55	
TOTAL SPECIFIED EXPENSES				666.26	

Note: Cost of production estimates are based on 2020 input prices.

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

60% of all peanuts harvested need drying

60% of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 43.B Summary of estimated costs and returns per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8R 38" Twin
All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Peanut Runner	ton	400.00	1.9000	760.00	
TOTAL INCOME			-	760.00	
DIRECT EXPENSES					
FUNGICIDES	acre	100.14	1.0000	100.14	
HERBICIDES	acre	84.79	1.0000	84.79	
INSECTICIDES	acre	17.15	1.0000	17.15	
SEED/PLANTS	acre	108.75	1.0000	108.75	
ADJUVANTS	acre	17.40	1.0000	17.40	
CLEANING	acre	29.16	1.0000	29.16	
DRYING	acre	27.36	1.0000	27.36	
CUSTOM LIME	acre	15.80	1.0000	15.80	
INOCULANT	acre	15.69	1.0000	15.69	
SOIL TEST	acre	3.33	1.0000		
HAND LABOR	hour	9.06	0.2199	1.99	
OPERATOR LABOR	hour	14.68	1.8229	26.76	
UNALLOCATED LABOR	hour		1.4583		
DIESEL FUEL	gal	1.53	19.5748	29.92	
REPAIR & MAINTENANCE	acre	30.14	1.0000	30.14	
INTEREST ON OP. CAP.	acre	5.88	1.0000	5.88	
TOTAL DIRECT EXPENSES				535.71	
RETURNS ABOVE DIRECT EXE	PENSES			224.29	
TOTAL FIXED EXPENSES				130.55	
TOTAL SPECIFIED EXPENSES	S		-	666.26	
RETURNS ABOVE TOTAL SPEC	CIFIED E	EXPENSES		93.74	

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 43.C Estimated resource use for field operations, per acre Peanut - runner, 1.9 ton (3800 lb) yield, 8R 38" Twin All Areas, Mississippi, 2021

OPERATING INPUT Soil Test Sprayer 600-750gal Glyphosate 3lbs a.e	UNIT acre	SIZE	RATE	OVER	MTH	DIJOONI	IMPLEMENT	UNIT	LABOR	LABOR
Sprayer 600-750gal										
Sprayer 600-750gal								hoi	urs	
				0.33	Apr	0.3330				
	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Gryphosate Sibs a.e	pt				-	4.0000				
Lime (Spread)	ton			0.33	Apr	0.3330				
Bed-Rip/Disk Rigid	8R-38	MFWD 190	0.073	1.00	May		0.07	0.07	0.07	0.05
Peanut Ptlt&PreTwin	8R-30/40	MFWD 225	0.120	1.00	May		0.12	0.12	0.24	0.09
Peanut Seed	lb					125.0000				
Optimize LIFT	OZ					29.6000				
Admire Pro	OZ					9.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	May			0.01	0.02	0.01
Dual Magnum	pt					1.0000				
Valor SX	OZ					3.0000				
Sprayer 600-750gal	60' 175hp		0.017	0.25	May			0.00	0.00	0.00
Acephate 90%	lb					0.1375				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jun			0.01	0.02	0.01
Storm	pt					1.5000				
Cadre	OZ					4.0000				
Butyrac 200 (2,4-DB)	pt					1.0000				
Crop Oil Conc.(Veg.)	pt					2.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jun			0.01	0.02	0.01
Bravo Weather Stick	pt				_	1.5000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul	40.000		0.01	0.02	0.01
Abound	OZ		0 017	1 00		18.0000		0 01	0.00	0 01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul	1 0000		0.01	0.02	0.01
Butyrac 200 (2,4-DB)	-					1.0000				
Crop Oil Conc. (Veg.)	=		0 017	1 00	- 1	2.0000		0 01	0 00	0 01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul	1 0000		0.01	0.02	0.01
Select Max	pt					1.0000				
Crop Oil Conc. (Veg.)			0 017	1 00	т 1	2.0000		0 01	0 00	0 01
Sprayer 600-750gal Bravo Weather Stick	60' 175hp		0.017	1.00	Jul	1 0000		0.01	0.02	0.01
Tebuconazole 3.6	pt oz					1.0000 7.2000				
Sprayer 600-750gal	60' 175hp		0.017	1 00	Aug	7.2000		0.01	0.02	0.01
Abound	00 175Hp		0.017	1.00	Aug	18.0000		0.01	0.02	0.01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Aug	10.0000		0.01	0.02	0.01
Bravo Weather Stick	pt		0.017	1.00	Aug	1.5000		0.01	0.02	0.01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Sep	1.5000		0.01	0.02	0.01
Bravo Weather Stick	pt		0.017	1.00	peb	1.5000		0.01	0.02	0.01
Peanut Dig/Invertor	4R-38	MFWD 190	0.186	1.00	Sep	1.5000	0.18	0.18	0.18	0.14
Peanut Harvester	4R-38	MFWD 225	0.934	1.00	Sep		0.93	0.93	0.93	0.74
Dry Peanuts	ton		3.301		JUP	1.1400	0.30	0.30	0.55	J. / 1
Cleaning Peanuts	ton					1.6200				
Peanut Dump Cart	6-Row	MFWD 190	0.310	1.00	Sep		0.31	0.31	0.31	0.24
TOTALS							1.82	1.62	2.04	1.45

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every 3rd year. 60% of all peanuts harvested need drying.

^{85%} of all peanuts harvested need cleaning.

Table 43.D Estimated costs for field operations, per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8R 38" Twin
All Areas, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.07	3.40		3.40
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	2.31
Glyphosate 31bs a.e	pt	8.44					0.17	8.61		8.61
Lime (Spread)	ton	15.80					0.32	16.12		16.12
Bed-Rip/Disk Rigid	8R-38		1.09	0.59	1.93		0.06	3.67	3.35	7.02
Peanut Ptlt&PreTwin	8R-30/40		2.14	6.72	4.28		0.22	13.36	16.12	29.48
Peanut Seed	lb	108.75					1.81	110.56		110.56
Optimize LIFT	OZ	15.69					0.26	15.95		15.95
Admire Pro	OZ	16.20					0.27	16.47		16.47
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	2.31
Dual Magnum	pt	13.33					0.22	13.55		13.55
Valor SX	OZ	13.53					0.23	13.76		13.76
Sprayer 600-750gal	60' 175hp		0.06	0.05	0.13			0.24	0.33	0.57
Acephate 90%	lb	0.95					0.02	0.97		0.97
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Storm	pt	17.87					0.24	18.11		18.11
Cadre	OZ	11.60					0.15	11.75		11.75
Butyrac 200 (2,4-DB)	pt	3.64					0.05	3.69		3.69
Crop Oil Conc.(Veg.)	pt	5.80					0.08	5.88		5.88
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	pt	7.95					0.11	8.06		8.06
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Abound	oz	32.94					0.33	33.27		33.27
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Butyrac 200 (2,4-DB)	<u> </u>	3.64					0.04	3.68		3.68
Crop Oil Conc. (Veg.)	_	5.80					0.06	5.86		5.86
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Select Max	pt	12.74					0.13	12.87		12.87
Crop Oil Conc.(Veg.)	-	5.80					0.06	5.86		5.86
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	-	5.30	0.21	0.20	0.00		0.05	5.35	1.00	5.35
Tebuconazole 3.6	OZ	5.11					0.05	5.16		5.16
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Abound	OZ 17511p	32.94	0.24	0.20	0.55		0.22	33.16	1.50	33.16
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	pt	7.95	0.24	0.20	0.55		0.05	8.00	1.50	8.00
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.05	0.99	1.30	2.29
Bravo Weather Stick	-	7.95	0.24	0.20	0.55		0.03	7.98	1.30	7.98
Peanut Dig/Invertor	4R-38	7.95	2.79	2.68	4.92		0.03		8.67	19.09
Peanut Harvester	4R-38		16.56	15.01	24.70		0.03	56.46		128.90
Dry Peanuts	ton	27.36	10.00	10.01	24.70		0.19		12.44	27.45
-	ton	27.36					0.19	27.45		29.26
Cleaning Peanuts Peanut Dump Cart	6-Row	29.10	4.64	2.89	8.19		0.10	15.77	15.34	31.11
reamac bump care	0 1/OW									
TOTALS		419.57	29.92	30.14	50.20	0.00	5.88	535.71	130.55	666.26

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

^{60%} of all peanuts harvested need drying.

^{85%} of all peanuts harvested need cleaning.

Table 43.E Estimated monthly income and expense flows per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8R 38" Twin
All Areas, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	760.00
DIRECT EXPENSES												
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.95	43.35	40.89	7.95
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	8.44	26.86	33.11	16.38	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.15	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108.75	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.80	11.60	0.00	0.00
CLEANING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.16
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.36
CUSTOM LIME	0.00	0.00	0.00	0.00	0.00	0.00	15.80	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.69	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	3.33	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.55	6.89	1.10	2.20	1.10	38.36
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.24	3.53	0.48	0.96	0.48	24.23
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.20	7.56	0.40	0.80	0.40	20.78
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.00	0.00	0.00	0.58	3.11	0.65	0.76	0.29	0.49
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	0.00	0.00	0.00	29.14	189.54	49.49	76.05	43.16	148.33
NET INCOME	0.00	0.00	0.00	0.00	0.00	0.00	-29.14	-189.54	-49.49	-76.05	-43.16	611.67
NET INCOME TO DATE	0.00	0.00	0.00	0.00	0.00	0.00	-29.14	-218.68	-268.17	-344.22	-387.38	224.29

Fertilizer recommendations are based on the nutrients that the peanut crop removes.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying.

85% of all peanuts harvested need cleaning.

^{*} Lease costs are based on hourly usage costs.

Table 43.F Estimated returns for various price/yield combinations, per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 8R 38" Twin
All Areas, Mississippi, 2021

								PERCENT					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Peanut R	Runner		300.00	320.00	340.00	360.00	380.00	400.00	420.00	440.00	460.00	480.00	500.00
PERCENT	YIELD	UNIT						dollars					
50	0.95	ton	-222	-203	-184	-165	-146	-127	-108	-89	-70	-51	-32
30	0.55	COII	-352	-333	-314	-295	-276	-257	-238	-219	-200	-181	-162
60	1.14	ton	-171	-148	-125	-102	-79	-57	-34	-11	11	34	56
			-301	-278	-255	-233	-210	-187	-164	-141	-119	-96	-73
70	1.33	ton	-119	-93	-66	-39	-13	13	39	66	93	119	146
			-250	-223	-197	-170	-143	-117	-90	-64	-37	-10	15
80	1.52	ton	-68	-37	-7	22	53	83	114	144	174	205	235
			-198	-168	-138	-107	-77	-46	-16	13	44	74	105
90	1.71	ton	-17	17	51	85	119	153	188	222	256	290	324
			-147	-113	-79	-44	-10	23	57	91	126	160	194
100	1.90	ton	34	72	110	148	186	224	262	300	338	376	414
			-96	-58	-20	17	55	93	131	169	207	245	283
110	2.09	ton	85	127	169	211	252	294	336	378	420	461	503
			-44	-3	38	80	122	164	205	247	289	331	373
120	2.28	ton	136	182	228	273	319	364	410	456	501	547	592
			6	51	97	143	188	234	279	325	371	416	462
130	2.47	ton	188	237	287	336	385	435	484	534	583	632	682
			57	107	156	205	255	304	354	403	452	502	551
140	2.66	ton	239	292	346	399	452	505	558	612	665	718	771
			109	162	215	268	321	375	428	481	534	587	641
150	2.85	ton	290	347	404	461	518	575	632	689	746	803	860
			160	217	274	331	388	445	502	559	616	673	730

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Only the product listed has been varied to calculate net returns.

Note: Cost of production estimates are based on 2020 input prices.

Table 44.A Estimated costs per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 12 row-38inch All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FUNGICIDES		F 20	F F000	20 15	
Bravo Weather Stick	pt	5.30	5.5000	29.15	
Abound	OZ	1.83 0.71	36.0000 7.2000	65.88 5.11	
Tebuconazole 3.6 HERBICIDES	ΟZ	0.71	7.2000	3.11	
Glyphosate 31bs a.e	pt	2.11	4.0000	8.44	
Dual Magnum	pt	13.33	1.0000	13.33	
Valor SX	OZ	4.51	3.0000	13.53	
Storm	pt	11.91	1.5000	17.87	
Cadre	OZ	2.90	4.0000	11.60	
Butyrac 200 (2,4-DB)		3.64	2.0000	7.28	
Select Max	pt	12.74	1.0000	12.74	
INSECTICIDES	рt	12.74	1.0000	12.74	
Admire Pro	OZ	1.80	9.0000	16.20	
Acephate 90%	lb	6.94	0.1375	0.95	
SEED/PLANTS	ID	0.94	0.13/3	0.93	
	lb	0 07	125 0000	100 75	
Peanut Seed	U	0.87	125.0000	108.75	
ADJUVANTS	~+	2 00	6 0000	17 40	
Crop Oil Conc.(Veg.)	рL	2.90	6.0000	17.40	
CLEANING		10 00	1 (200	20.16	
Cleaning Peanuts	ton	18.00	1.6200	29.16	
DRYING		0.4.00	1 1400	07.06	
Dry Peanuts	ton	24.00	1.1400	27.36	
CUSTOM LIME		45 45	0 0000	1 = 00	
Lime (Spread)	ton	47.45	0.3330	15.80	
INOCULANT					
Optimize LIFT	ΟZ	0.53	14.8000	7.84	
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	
OPERATOR LABOR					
Tractors	hour	14.68	1.1856	17.41	
Self-Propelled	hour	14.68	0.1983	2.92	
HAND LABOR					
Implements	hour	9.06	0.0804	0.73	
Self-Propelled	hour	9.06	0.0991	0.90	
UNALLOCATED LABOR	hour	14.70	1.1072	16.28	
DIESEL FUEL					
Tractors	gal	1.53	12.9499	19.81	
Self-Propelled	gal	1.53	1.7850	2.70	
REPAIR & MAINTENANCE	942	1.00	1.7000	2.70	
Implements	acre	10.21	1.0000	10.21	
Tractors	acre	8.11	1.0000	8.11	
Self-Propelled	acre	2.25	1.0000	2.25	
INTEREST ON OP. CAP.		5.56	1.0000	5.56	
INTEREST ON OF. CAF.	acre	3.30	1.0000	3.30	
TOTAL DIRECT EXPENSES				498.60	
FIXED EXPENSES				790.00	
	2020	2/ /1	1.0000	34.41	
Implements Tractors	acre	34.41			
	acre	49.41	1.0000	49.41	
Self-Propelled	acre	14.63	1.0000	14.63	
MOMAL BIVER SVESSORS					
TOTAL FIXED EXPENSES				98.45	
momai appareres superiore					
TOTAL SPECIFIED EXPENSES				597.05	

Note: Cost of production estimates are based on 2020 input prices.

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

60% of all peanuts harvested need drying.

85% of all peanuts harvested need cleaning.

Table 44.B Summary of estimated costs and returns per acre
Peanut - runner, 1.9 ton (3800 lb) yield, 12 row-38inch
All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Peanut Runner	ton	400.00	1.9000	760.00	
TOTAL INCOME				760.00	
DIRECT EXPENSES					
FUNGICIDES	acre	100.14	1.0000	100.14	
HERBICIDES	acre	84.79	1.0000	84.79	
INSECTICIDES	acre	17.15	1.0000	17.15	
SEED/PLANTS	acre	108.75	1.0000	108.75	
ADJUVANTS	acre	17.40	1.0000	17.40	
CLEANING	acre	29.16	1.0000	29.16	
DRYING	acre	27.36	1.0000	27.36	
CUSTOM LIME	acre	15.80	1.0000	15.80	
INOCULANT	acre	7.84		7.84	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1795	1.63	
OPERATOR LABOR	hour	14.68	1.3840	20.33	
UNALLOCATED LABOR	hour	14.70	1.1072	16.28	
DIESEL FUEL	gal	1.53	14.7349	22.51	
REPAIR & MAINTENANCE	acre	20.57	1.0000	20.57	
INTEREST ON OP. CAP.	acre	5.56	1.0000	5.56	
TOTAL DIRECT EXPENSES				498.60	
RETURNS ABOVE DIRECT EXP	ENSES			261.40	
TOTAL FIXED EXPENSES				98.45	
TOTAL SPECIFIED EXPENSES				597.05	
RETURNS ABOVE TOTAL SPEC	IFIED	EXPENSES		162.95	

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 44.C Estimated resource use for field operations, per acre Peanut - runner, 1.9 ton (3800 lb) yield, 12 row-38inch All Areas, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT	PERF RATE	TIMES	MTH	INPUT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
								ho	urs	
Soil Test	acre			0.33	Apr	0.3330				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Glyphosate 31bs a.e	pt					4.0000				
Lime (Spread)	ton			0.33	Apr	0.3330				
Bed-Rip/Disk Fold.	12R-38	MFWD 225	0.046	1.00	May		0.04	0.04	0.04	0.03
Peanut Plt&Pre Fold.	12R-38	MFWD 225	0.080	1.00	May		0.08	0.08	0.16	0.06
Peanut Seed	lb					125.0000				
Optimize LIFT	OZ					14.8000				
Admire Pro	OZ					9.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	May			0.01	0.02	0.01
Dual Magnum	pt					1.0000				
Valor SX	ΟZ					3.0000				
Sprayer 600-750gal	60' 175hp		0.017	0.25	May			0.00	0.00	0.00
Acephate 90%	lb					0.1375				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jun			0.01	0.02	0.01
Storm	pt					1.5000				
Cadre	ΟZ					4.0000				
Butyrac 200 (2,4-DB)						1.0000				
Crop Oil Conc. (Veg.)	-					2.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jun	4 5000		0.01	0.02	0.01
Bravo Weather Stick	pt		0 017	1 00		1.5000		0 01	0.00	0 01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul	10 0000		0.01	0.02	0.01
Abound	OZ		0 017	1 00	- 1	18.0000		0 01	0 00	0 01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul	1 0000		0.01	0.02	0.01
Butyrac 200 (2,4-DB)	-					1.0000				
Crop Oil Conc.(Veg.) Sprayer 600-750gal	-		0.017	1 00	Jul	2.0000		0.01	0.02	0.01
Select Max	60' 175hp		0.017	1.00	Jul	1.0000		0.01	0.02	0.01
Crop Oil Conc. (Veg.)	pt pt					2.0000				
Sprayer 600-750gal	60' 175hp		0 017	1.00	Jul	2.0000		0.01	0.02	0.01
Bravo Weather Stick	pt		0.017	1.00	our	1.0000		0.01	0.02	0.01
Tebuconazole 3.6	OZ					7.2000				
Sprayer 600-750gal	60' 175hp		0.017	1 00	Aug	7.2000		0.01	0.02	0.01
Abound	OZ		0.017	1.00	1149	18.0000		0.01	0.02	0.01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Aug	10.0000		0.01	0.02	0.01
Bravo Weather Stick	pt		0.017	1.00	1149	1.5000		0.01	0.02	0.01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Sep	1.0000		0.01	0.02	0.01
Bravo Weather Stick	pt					1.5000				
Peanut Dig/Invertor	6R-38	MFWD 190	0.124	1.00	Sep		0.12	0.12	0.12	0.09
Peanut Harvester	6R-38	MFWD 225	0.625	1.00	Sep		0.62	0.62	0.62	0.50
Dry Peanuts	ton				-	1.1400				
Cleaning Peanuts	ton					1.6200				
Peanut Dump Cart	6-Row	MFWD 190	0.310	1.00	Sep		0.31	0.31	0.31	0.24
TOTALS							1.38	1.18	1.56	1.10

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

^{60%} of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 44.D Estimated costs for field operations, per acre Peanut - runner, 1.9 ton (3800 lb) yield, 12 row-38inch All Areas, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars				
						uoilais-				
Soil Test	acre	3.33					0.07	3.40		3.40
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	2.31
Glyphosate 31bs a.e	pt	8.44					0.17	8.61		8.61
Lime (Spread)	ton	15.80					0.32	16.12		16.12
Bed-Rip/Disk Fold.	12R-38		0.82	0.50	1.22		0.04	2.58	2.75	5.33
Peanut Plt&Pre Fold.	12R-38		1.42	3.39	2.85		0.13	7.79	8.72	16.51
Peanut Seed	lb	108.75					1.81	110.56		110.56
Optimize LIFT	OZ	7.84					0.13	7.97		7.97
Admire Pro	OZ	16.20					0.27	16.47		16.47
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	2.31
Dual Magnum	pt	13.33					0.22	13.55		13.55
Valor SX	OZ	13.53					0.23	13.76		13.76
Sprayer 600-750gal	60' 175hp		0.06	0.05	0.13			0.24	0.33	0.57
Acephate 90%	lb	0.95					0.02	0.97		0.97
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Storm	pt	17.87					0.24	18.11		18.11
Cadre	OZ	11.60					0.15	11.75		11.75
Butyrac 200 (2,4-DB)	pt	3.64					0.05	3.69		3.69
Crop Oil Conc. (Veg.)	_	5.80					0.08	5.88		5.88
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	_	7.95					0.11	8.06		8.06
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Abound	OZ	32.94	*				0.33	33.27		33.27
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Butyrac 200 (2,4-DB)	<u> </u>	3.64					0.04	3.68		3.68
Crop Oil Conc. (Veg.)	_	5.80					0.06	5.86		5.86
Sprayer 600-750gal	60 ' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Select Max	pt	12.74	0.21	0.20	0.00		0.13		1.50	12.87
Crop Oil Conc. (Veg.)	-	5.80					0.06	5.86		5.86
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	-	5.30	0.24	0.20	0.55		0.05	5.35	1.50	5.35
Tebuconazole 3.6	oz	5.11					0.05	5.16		5.16
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.03	1.00	1.30	2.30
Abound	00 17511p	32.94	0.24	0.20	0.55		0.01	33.16	1.30	33.16
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.22	1.00	1.30	2.30
Bravo Weather Stick	_	7.95	0.24	0.20	0.55		0.01	8.00	1.30	8.00
	=		0.24	0.20	0.55		0.03	0.99	1.30	2.29
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0 02		1.30	7.98
Bravo Weather Stick	-	7.95	1 0.0	1 70	2 20		0.03		6 00	
Peanut Dig/Invertor	6R-38		1.86	1.79	3.28		0.02		6.29	13.24
Peanut Harvester	6R-38	27.26	11.07	9.75	16.52		0.12		50.72	88.18
Dry Peanuts	ton	27.36					0.09			27.45
Cleaning Peanuts	ton	29.16	4 6 4	0.00	0 10		0.10		15 04	29.26
Peanut Dump Cart	6-Row		4.64	2.89	8.19		0.05	15.77	15.34	31.11
TOTALS		411.72	22.51	20.57	38.24	0.00	5.56	498.60	98.45	597.05

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every 3rd year. 60% of all peanuts harvested need drying.

^{85%} of all peanuts harvested need cleaning.

Table 44.E Estimated monthly income and expense flows per acre Peanut - runner, 1.9 ton (3800 lb) yield, 12 row-38inch All Areas, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	760.00
DIRECT EXPENSES												
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.95	43.35	40.89	7.95
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	8.44	26.86	33.11	16.38	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.15	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108.75	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.80	11.60	0.00	0.00
CLEANING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.16
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.36
CUSTOM LIME	0.00	0.00	0.00	0.00	0.00	0.00	15.80	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.84	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	3.33	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.55	4.75	1.10	2.20	1.10	28.54
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.24	2.54	0.48	0.96	0.48	17.81
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.20	4.14	0.40	0.80	0.40	14.63
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.00	0.00	0.00	0.58	2.87	0.65	0.76	0.29	0.41
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	0.00	0.00	0.00	29.14	174.90	49.49	76.05	43.16	125.86
NET INCOME	0.00	0.00	0.00	0.00	0.00	0.00	-29.14	-174.90	-49.49	-76.05	-43.16	634.14
NET INCOME TO DATE	0.00	0.00	0.00	0.00	0.00	0.00	-29.14	-204.04	-253.53	-329.58	-372.74	261.40

Fertilizer recommendations are based on the nutrients that the peanut crop removes.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying.

85% of all peanuts harvested need cleaning.

^{*} Lease costs are based on hourly usage costs.

Table 44.F Estimated returns for various price/yield combinations, per acre Peanut - runner, 1.9 ton (3800 lb) yield, 12 row-38inch All Areas, Mississippi, 2021

								PERCENT					
PRODUCT			75	80	85	90	95 P	100 RODUCT PR	105			120	125
Peanut R	unner		300.00	320.00	340.00				420.00			480.00	500.00
PERCENT	YIELD	UNIT						dollars					
50	0.95	ton	-185 -283	-166 -264	-147 -245	-128 -226	-109 -207		-71 -169	-52 -150	-33 -131		4 -93
60	1.14	ton	-133 -232	-111 -209	-88 -186	-65 -163	-42 -141	-19 -118	2 -95	25 -72	48 -49	71 -27	94 -4
70	1.33	ton	-82 -181	-55 -154	-29 -127	-2 -101	23 -74	50 -48	77 -21	103 5	130 31	156 58	183 84
80	1.52	ton	-31 -129	-0 -99	29 -68	59 -38	90 -8	120 22	151 52	181 83	211 113	242 143	272 174
90	1.71	ton	20 -78	54 -44	88 -9	122 24	156 58	191 92	225 126	259 161	293 195	327 229	362 263
100	1.90	ton	71 -27	109 10	147 48	185 86	223 124	261 162	299 200	337 238	375 276	413 314	451 352
110	2.09	ton	122 24	164 66	206 107	248 149	289 191	331 233	373 275	415 316	457 358	498 400	540 442
120	2.28	ton	174 75	219 121	265 166	310 212	356 258	402 303	447 349	493 394	538 440	584 486	630 531
130	2.47	ton	225 126	274 176	324 225	373 275	422 324	472 373	521 423	571 472	620 522	669 571	719 620
140	2.66	ton	276 178	329 231	383 284	436 337	489 391	542 444	595 497	649 550	702 603	755 657	808 710
150	2.85	ton	328 229	385 286	442 343	499 400	556 457	613 514	670 571	727 628	784 685	841 742	898 799

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses. Only the product listed has been varied to calculate net returns. Note: Cost of production estimates are based on 2020 input prices.

Table 45.A Estimated costs per acre Peanut-runner, 2.2 ton (4,400 lb) yield, 12 row-38inch Furrow irrigated, All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES FUNGICIDES		dollars		dollars	
Bravo Weather Stick	pt	5.30	5.5000	29.15	
Abound	ΟZ	1.83	36.0000	65.88	
Tebuconazole 3.6 HERBICIDES	ΟZ	0.71	7.2000	5.11	
Glyphosate 31bs a.e	pt	2.11	4.0000	8.44	
Dual Magnum	pt	13.33	1.0000	13.33	
Valor SX	ΟZ	4.51	3.0000	13.53	
Storm Cadre	pt oz	11.91 2.90	1.5000 4.0000	17.87 11.60	
Butyrac 200 (2,4-DB)		3.64	2.0000	7.28	
Select Max	pt	12.74	1.0000	12.74	
INSECTICIDES	-				
Admire Pro	OZ	1.80	9.0000	16.20	
Acephate 90% IRRIGATION SUPPLIES	lb	6.94	0.1375	0.95	
Roll-Out Pipe	ft	0.24	33.0000	7.92	
SEED/PLANTS		0.21	00.000	,,,,_	
Peanut Seed	lb	0.87	125.0000	108.75	
ADJUVANTS Crop Oil Conc.(Veg.)	nt	2.90	6.0000	17.40	
CLEANING	рt	2.90	0.0000	17.40	
Cleaning Peanuts	ton	18.00	1.8700	33.66	
DRYING_					
Dry Peanuts CUSTOM LIME	ton	24.00	1.3200	31.68	
Lime (Spread)	ton	47.45	0.3330	15.80	
INOCULANT	COII	17.15	0.3330	10.00	
Optimize LIFT	OZ	0.53	14.8000	7.84	
SOIL TEST		10.00	0 2220	2 22	
Soil Test OPERATOR LABOR	acre	10.00	0.3330	3.33	
Tractors	hour	14.68	1.2642	18.57	
Self-Propelled	hour	14.68	0.1983	2.92	
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3250	2.96	
Implements HAND LABOR	hour	9.06	0.0625	0.57	
Implements	hour	9.06	0.0804	0.73	
Self-Propelled	hour	9.06	0.0991	0.90	
UNALLOCATED LABOR	hour	14.70	1.1072	16.28	
DIESEL FUEL Tractors	gal	1.53	13.6762	20.93	
Self-Propelled	gal	1.53	1.7850	2.70	
Irrigate Peanuts	gal	1.53	9.7755	14.96	
REPAIR & MAINTENANCE	_	10.10	1 0000	10 10	
Implements	acre	10.40 8.54	1.0000	10.40 8.54	
Tractors Self-Propelled	acre acre	2.25	1.0000	2.25	
Irrigate Peanuts	acre	7.16	1.0000	7.16	
INTEREŠT ON OP. CAP.	acre	6.08	1.0000	6.08	
TOTAL DIRECT EXPENSES				544.41	
FIXED EXPENSES	2022	25 (5	1 0000	25 (5	
Implements Tractors	acre acre	35.65 52.05	1.0000	35.65 52.05	
Self-Propelled	acre	14.63	1.0000	14.63	
Irrigate Peanuts	acre	51.84	1.0000	51.84	
MOMAI EIVED EVDENOEG				1 5 4 1 7	
TOTAL FIXED EXPENSES				154.17	
TOTAL SPECIFIED EXPENSES				698.58	

Note: Cost of production estimates are based on 2020 input prices.

Fertilizer recommendations are based on the nutrients that the peanut refringer recommendations are based on the interients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

60% of all peanuts harvested need drying.

85% of all peanuts harvested need cleaning.

Table 45.B Summary of estimated costs and returns per acre Peanut-runner, 2.2 ton (4,400 lb) yield, 12 row-38inch Furrow irrigated, All Areas, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Peanut Runner	ton	400.00	2.2000	880.00	
TOTAL INCOME				880.00	
DIRECT EXPENSES					
FUNGICIDES	acre	100.14	1.0000	100.14	
HERBICIDES	acre	84.79	1.0000	84.79	
INSECTICIDES	acre	17.15	1.0000	17.15	
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	
SEED/PLANTS	acre	108.75	1.0000	108.75	
ADJUVANTS	acre	17.40	1.0000	17.40	
CLEANING	acre	33.66	1.0000	33.66	
DRYING	acre	31.68	1.0000	31.68	
CUSTOM LIME	acre	15.80	1.0000	15.80	
INOCULANT	acre	7.84	1.0000	7.84	
SOIL TEST	acre	3.33	1.0000	3.33	
HAND LABOR	hour	9.06	0.1795	1.63	
IRRIGATE LABOR	hour	9.06	0.3875	3.53	
OPERATOR LABOR	hour	14.68	1.4625	21.49	
UNALLOCATED LABOR	hour	14.70	1.1072	16.28	
DIESEL FUEL	gal	1.53	25.2367	38.59	
REPAIR & MAINTENANCE	acre	28.35	1.0000	28.35	
INTEREST ON OP. CAP.	acre	6.08	1.0000	6.08	
TOTAL DIRECT EXPENSES				544.41	
RETURNS ABOVE DIRECT EXP	ENSES			335.59	
TOTAL FIXED EXPENSES				154.17	
TOTAL SPECIFIED EXPENSES				698.58	
RETURNS ABOVE TOTAL SPEC	CIFIED	EXPENSES		181.42	

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every $3^{\rm rd}$ year. Lime cost prorated for application every $3^{\rm rd}$ year.

60% of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 45.C Estimated resource use for field operations, per acre Peanut-runner, 2.2 ton (4,400 lb) yield, 12 row-38inch Furrow irrigated, All Areas, Mississippi, 2021

OPERATION/	SIZE/	POWER UNIT	PERF	TIMES		INPUT		POWER	ALLOC	UNALL
OPERATING INPUT	UNIT	SIZE	RATE	OVER	MTH	AMOUNT	IMPLEMENT	UNIT	LABOR	LABOR
								ho	urs	
Soil Test	acre			0.33	Apr	0.3330				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Glyphosate 31bs a.e	pt				_	4.0000				
Lime (Spread)	ton			0.33	Apr	0.3330				
Bed-Rip/Disk Fold.	12R-38	MFWD 225	0.046	1.00	Мау		0.04	0.04	0.04	0.03
Peanut Plt&Pre Fold.	12R-38	MFWD 225	0.080	1.00	May		0.08	0.08	0.16	0.06
Peanut Seed	lb					125.0000				
Optimize LIFT	OZ					14.8000				
Admire Pro	OZ					9.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	May			0.01	0.02	0.01
Dual Magnum	pt					1.0000				
Valor SX	OZ					3.0000				
Sprayer 600-750gal	60' 175hp		0.017	0.25	May			0.00	0.00	0.00
Acephate 90%	lb					0.1375				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jun			0.01	0.02	0.01
Storm	pt					1.5000				
Cadre	OZ					4.0000				
Butyrac 200 (2,4-DB	_					1.0000				
Crop Oil Conc.(Veg.	-					2.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jun			0.01	0.02	0.01
Bravo Weather Stick	-					1.5000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul			0.01	0.02	0.01
Abound	OZ					18.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul			0.01	0.02	0.01
Butyrac 200 (2,4-DB	-					1.0000				
Crop Oil Conc. (Veg.)	-			4 00		2.0000				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Jul	4 0000		0.01	0.02	0.01
Select Max	pt					1.0000				
Crop Oil Conc. (Veg.)	-		0 017	1 00		2.0000		0 01	0 00	0 01
Sprayer 600-750gal	60' 175hp		0.01/	1.00	Jul	1 0000		0.01	0.02	0.01
Bravo Weather Stick	1 -					1.0000				
Tebuconazole 3.6	OZ		0 017	1 00	7	7.2000		0 01	0 00	0 01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Aug	10 0000		0.01	0.02	0.01
Abound	OZ		0 017	1 00	7.1.~	18.0000		0.01	0.02	0.01
Sprayer 600-750gal	60' 175hp		0.017	1.00	Aug	1 5000		0.01	0.02	0.01
Bravo Weather Stick Sprayer 600-750gal	pt 60' 175hp		0.017	1.00	000	1.5000		0.01	0.02	0.01
Bravo Weather Stick	-		0.017	1.00	Sep	1.5000		0.01	0.02	0.01
Peanut Dig/Invertor	6R-38	MFWD 190	0.124	1.00	Sep	1.3000	0.12	0.12	0.12	0.09
Peanut Harvester	6R-38	MFWD 190 MFWD 225	0.124	1.00	Sep		0.12	0.12	0.12	0.09
Dry Peanuts	ton	TIL WU ZZJ	0.023	1.00	JGP	1.3200	0.02	0.02	0.02	0.50
Cleaning Peanuts	ton					1.8700				
Peanut Dump Cart	6-Row	MFWD 190	0.310	1 00	Sep	1.0700	0.31	0.31	0.31	0.24
Irrigate Peanuts	acre	111.40 100	0.010	1.00	Jan	1.0000	0.07	0.07	0.46	J.21
	2020				0 311	1.0000				
TOTALS							1.46	1.26	2.02	1.10
-								. = -		0

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Soil test cost is prorated for a test every 3rd year.

Lime cost prorated for application every 3rd year.

^{60%} of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 45.D Estimated costs for field operations, per acre Peanut-runner, 2.2 ton (4,400 lb) yield, 12 row-38inch Furrow irrigated, All Areas, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Soil Test	acre	3.33					0.07	3.40		3.40
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	2.31
Glyphosate 31bs a.e	-	8.44					0.17	8.61		8.61
Lime (Spread)	ton	15.80					0.32	16.12		16.12
Bed-Rip/Disk Fold.	12R-38		0.82	0.50	1.22		0.04	2.58	2.75	5.33
Peanut Plt&Pre Fold.	12R-38		1.42	3.39	2.85		0.13	7.79	8.72	16.51
Peanut Seed	lb	108.75					1.81	110.56		110.56
Optimize LIFT	OZ	7.84					0.13	7.97		7.97
Admire Pro	OZ	16.20					0.27	16.47		16.47
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.02	1.01	1.30	2.31
Dual Magnum	pt	13.33					0.22	13.55		13.55
Valor SX	OZ	13.53					0.23	13.76		13.76
Sprayer 600-750gal	60' 175hp		0.06	0.05	0.13			0.24	0.33	0.57
Acephate 90%	lb	0.95					0.02	0.97		0.97
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Storm	pt	17.87					0.24	18.11		18.11
Cadre	OZ	11.60					0.15	11.75		11.75
Butyrac 200 (2,4-DB)	-	3.64					0.05	3.69		3.69
Crop Oil Conc.(Veg.)	-	5.80					0.08	5.88		5.88
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Bravo Weather Stick	-	7.95					0.11	8.06		8.06
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Abound	OZ	32.94					0.33	33.27		33.27
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Butyrac 200 (2,4-DB)	-	3.64					0.04	3.68		3.68
Crop Oil Conc.(Veg.)	-	5.80	0 04	0.00	0 55		0.06	5.86	1 20	5.86
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.01	1.00	1.30	2.30
Select Max	pt	12.74					0.13	12.87		12.87
Crop Oil Conc. (Veg.)	-	5.80	0.24	0.20	0 55		0.06	5.86	1 20	5.86
Sprayer 600-750gal Bravo Weather Stick	60' 175hp	5.30	0.24	0.20	0.55		0.01	1.00 5.35	1.30	2.30 5.35
Tebuconazole 3.6	-	5.11					0.05	5.16		5.16
Sprayer 600-750gal	oz 60' 175hp		0.24	0.20	0.55		0.03	1.00	1.30	2.30
Abound	00 175Hp	32.94	0.24	0.20	0.55		0.01	33.16	1.30	33.16
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.22	1.00	1.30	2.30
Bravo Weather Stick	_	7.95	0.24	0.20	0.55		0.01	8.00	1.50	8.00
Sprayer 600-750gal	60' 175hp		0.24	0.20	0.55		0.03	0.99	1.30	2.29
Bravo Weather Stick	-	7.95	0.24	0.20	0.55		0.03	7.98	1.50	7.98
Peanut Dig/Invertor	6R-38	7.55	1.86	1.79	3.28		0.03	6.95	6.29	13.24
Peanut Harvester	6R-38		11.07	9.75	16.52		0.12	37.46	50.72	88.18
Dry Peanuts	ton	31.68		3.75	10.02		0.11	31.79	00.72	31.79
Cleaning Peanuts	ton	33.66					0.11	33.77		33.77
Peanut Dump Cart	6-Row		4.64	2.89	8.19		0.05	15.77	15.34	31.11
Irrigate Peanuts	acre	7.92	16.08	7.78	4.69		0.49	36.96	55.72	92.68
TOTALS		428.46	38.59	28.35	42.93	0.00	6.08	544.41	154.17	698.58

Fertilizer recommendations are based on the nutrients that the peanut crop removes. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.

^{60%} of all peanuts harvested need drying. 85% of all peanuts harvested need cleaning.

Table 45.E Estimated monthly income and expense flows per acre
Peanut-runner, 2.2 ton (4,400 lb) yield, 12 row-38inch
Furrow irrigated, All Areas, Mississippi, 2021

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
						dolla	ars					
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	880.00
DIRECT EXPENSES												
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.95	43.35	40.89	7.95
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	8.44	26.86	33.11	16.38	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.15	0.00	0.00	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	108.75	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.80	11.60	0.00	0.00
CLEANING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.66
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.68
CUSTOM LIME	0.00	0.00	0.00	0.00	0.00	0.00	15.80	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.84	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	3.33	0.00	0.00	0.00	0.00	0.00
LABOR	0.56	0.00	0.00	0.00	0.00	0.00	0.78	7.11	1.33	2.66	1.95	28.54
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.57	0.00	0.00	0.00	0.00	0.00	0.24	2.84	4.22	8.44	4.47	17.81
REPAIR & MAINTENANCE	0.30	0.00	0.00	0.00	0.00	0.00	0.20	7.27	1.45	2.90	1.60	14.63
INTEREST ON OP. CAP.	0.06	0.00	0.00	0.00	0.00	0.00	0.58	3.10	0.71	0.86	0.33	0.44
TOTAL DIRECT EXPENSES	1.49	0.00	0.00	0.00	0.00	0.00	29.37	188.84	54.57	86.19	49.24	134.71
NET INCOME	-1.49	0.00	0.00	0.00	0.00	0.00	-29.37	-188.84	-54.57	-86.19	-49.24	745.29
NET INCOME TO DATE	-1.49	-1.49	-1.49	-1.49	-1.49	-1.49	-30.86	-219.70	-274.27	-360.46	-409.70	335.59

Fertilizer recommendations are based on the nutrients that the peanut crop removes.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every $3^{\rm rd}$ year.

Lime cost prorated for application every 3rd year.

60% of all peanuts harvested need drying.

85% of all peanuts harvested need cleaning.

^{*} Lease costs are based on hourly usage costs.

Table 45.F Estimated returns for various price/yield combinations, per acre Peanut-runner, 2.2 ton (4,400 lb) yield, 12 row-38inch Furrow irrigated, All Areas, Mississippi, 2021

								PERCENT					
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Peanut R	lunner		300.00	320.00	340.00		380.00	RODUCT PR 400.00		440.00	460.00	480.00	500.00
PERCENT	YIELD	UNIT						dollars					
50	1.10	ton	-181 -335	-159 -313	-137 -291	-115 -269	-93 -247	-71 -225	-49 -203	-27 -181	-5 -159	16 -137	38 -115
60	1.32	ton	-122 -276	-95 -249	-69 -223	-42 -197	-16 -170	9 -144	36 -117	62 -91	89 -65	115 -38	141 -12
70	1.54	ton	-62 -216	-31 -186	-1 -155	29 -124	60 -93	91 -62	122 -32	152 -1	183 29	214 60	245 91
80	1.76	ton	-3 -157	31 -122	67 -87	102 -51	137 -16	172 18	207 53	243 88	278 124	313 159	348 194
90	1.98	ton	56 -98	95 - 58	135 -18	174 20	214 60	254 99	293 139	333 179	372 218	412 258	452 297
100	2.20	ton	115 -38	159 5	203 49	247 93	291 137	335 181	379 225	423 269	467 313	511 357	555 401
110	2.42	ton	175 20	223 69	271 117	320 166	368 214	417 262	465 311	513 359	562 408	610 456	659 504
120	2.64	ton	234 80	287 133	340 185	392 238	445 291	498 344	551 397	604 449	656 502	709 555	762 608
130	2.86	ton	293 139	351 196	408 254	465 311	522 368	579 425	637 482	694 540	751 597	808 654	865 711
140	3.08	ton	353 199	414 260	476 322	538 383	599 445	661 507	722 568	784 630	846 691	907 753	969 815
150	3.30	ton	412 258	478 324	544 390	610 456	676 522	742 588	808 654	874 720	940 786	1006 852	1072 918

The top number in each cell is Returns Above Direct Expenses.

The bottom number in each cell is Returns Above Total Specified Expenses.

Note: Cost of production estimates are based on 2020 input prices..

Only the product listed has been varied to calculate net returns.



Appendix Table 1. Tractors/Harvesters: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Mississippi, 2021

		Purchase		Useful	Fuel	Labor	Fuel	R&M	Total		Total
Item Name	Size	Price	Use	Life	Use				Direct		Cost
		dollars	hours	years	gal/hr			\$	/hour		
Combine (250-299 hp)	265 hp	391,000	300	8	13.64	14.68	20.86	40.72	76.27	155.91	232.19
Combine (300-349 hp)	325 hp	395,000	300	8	16.73		25.59			157.50	
Combine (350-399 hp)	355 hp	401,000	300	8	18.27	14.68	27.95	41.77	84.40	159.90	244.30
Combine (400-449 hp)	425 hp	436,000	300	8	21.87		33.47			173.85	
Combine (450-499hp)	475 hp	462,000	300	8	24.44	14.68	37.40	48.12	100.21	184.22	284.43
Tractor(20-39hp)CB	MFWD 30	30,100	600	8	1.54	14.68	2.36	0.94	17.98	5.46	23.44
Tractor(20-39hp)RB	MFWD 30	20,700	600	8	1.54	14.68	2.36	0.64	17.68	3.75	21.44
Tractor(40-59hp)CB	2WD 50	30,900	600	8	2.57	14.68	3.93	0.96	19.58	5.61	25.19
Tractor(40-59hp)CB	MFWD 50	41,400	600	8	2.57	14.68	3.93	1.29	19.91	7.51	27.43
Tractor(40-59hp)RB	2WD 50	21,700	600	8	2.57	14.68	3.93	0.67	19.29	3.94	23.23
Tractor(40-59hp)RB	MFWD 50	27,200	600	8	2.57	14.68	3.93	0.85	19.46	4.93	24.40
Tractor(60-89hp)CB	2WD 75	53,200	600	8	3.86	14.68	5.90	1.66	22.24	9.66	31.91
Tractor(60-89hp)CB	MFWD 75	57 , 600	600	8	3.86	14.68	5.90	1.80	22.38	10.46	32.84
Tractor(60-89hp)RB	2WD 75	38,400	600	8	3.86	14.68	5.90	1.20	21.78	6.97	28.76
Tractor(60-89hp)RB	MFWD 75	41,800	600	8	3.86	14.68	5.90	1.30	21.89	7.59	29.48
Tractor (90-119hp) CB	2WD 105	71,200	600	8	5.40	14.68	8.26	2.22	25.17	12.93	38.10
Tractor(90-119hp)CB	MFWD 105	91,700	600	8	5.40	14.68	8.26	2.86	25.81	16.65	42.46
Tractor (90-119hp) RB	2WD 105	64,600	600	8	5.40	14.68	8.26	2.01	24.96	11.73	36.69
Tractor(90-119hp)RB	MFWD 105	71,900	600	8	5.40	14.68	8.26	2.24	25.19	13.05	38.25
Tractor (120-139hp) CB	2WD 130	113,000	600	8	6.69	14.68	10.23	3.53	28.44	20.52	48.97
Tractor (120-139hp) CB	MFWD 130	126,000	600	8	6.69	14.68	10.23	3.93	28.85	22.88	51.73
Tractor (140-159hp)	2WD 150	111,000	600	8	7.72	14.68	11.81	3.46	29.96	20.15	50.12
Tractor (140-159hp) CB	MFWD 150	143,000	600	8	7.72	14.68	11.81	4.46	30.96	25.97	56.93
Tractor (160-179hp) CB	MFWD 170	160,000	600	8	8.75	14.68	13.38	5.00	33.06	30.47	63.54
Tractor (180-199hp) CB	MFWD 190	194,000	600	8	9.77	14.68	14.96	6.06	35.70	36.95	72.66
Tractor(200-249hp)CB	MFWD 225	233,000	600	8	11.58	14.68	17.71	7.28	39.68	44.38	84.06
Tractor (250-349hp) CB	4WD 300	314,000	600	8	15.44	14.68	23.62	9.81	48.11	59.81	107.93
Tractor (250-349hp) CB	MFWD 300	321,000	600	8	15.44	14.68	23.62	10.03	48.33	61.14	109.48
Tractor (250-349hp) CB	Track 300	329,000	600	8	15.44	14.68	23.62	10.28	48.58	62.67	111.25
Tractor (350-449hp)	Track 400	453,000	600	8	20.58	14.68	31.50	14.15	60.33	86.29	146.63
Tractor (350-449hp) CB	4WD 400	366,000	600	8	20.58	14.68	31.50	11.43	57.61	69.72	127.33
Tractor (450-550hp) CB	4WD 500	412,000	600	8	25.73	14.68	39.37	12.87	66.93	78.48	145.41
Tractor (450-550hp) CB	Track 500	470,000	600	8	25.73		39.37		68.74		158.27
Utility Vehicle	800 CC	12,200	200	8	0.70	14.68	1.32	1.90	17.90	7.29	25.20
Utility Vehicle	900 CC	15,800	200	8	1.00	14.68	1.89	2.46	19.03	9.45	28.48
- 4		.,									

Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

Appendix Table 2. Self-propelled machines: estimated purchase price, annual use, useful life, fuel use, performance rate, and direct and fixed cost per acre, Mississippi, 2021

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Perf Rate	Labor	Fuel	R&M	Total	Fixed	Total Cost
I Celli Name	5126	11106	036	птте	036	Nace				DITECT	•	COSC
		dollars	hours	years	gal/hr	hr/ac			\$	/acre		
Cotton Picker	4R-38 (250)	268,000	200	8	12.86	0.257	6.11	5.07	10.79	21.98	41.32	63.31
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	6.11	7.10	14.13	27.36	54.11	81.48
Cotton Picker	4R2x1(350)	357,000	200	8	18.01	0.172	4.09	4.74	9.61	18.45	36.79	55.24
Cotton Picker	6R-30(355)	465,000	200	8	18.27	0.218	5.18	6.10	15.85	27.14	60.70	87.84
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	4.09	4.81	12.51	21.42	47.92	69.35
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	6.11	8.12	21.58	35.82	82.64	118.47
Cotton Picker/Module	6R-30(500)	808,000	200	8	25.73	0.218	5.18	8.59	27.55	41.32	105.47	146.80
Cotton Picker/Module	6R-38(500)	807,000	200	8	25.73	0.172	4.09	6.78	21.72	32.60	83.17	115.77
Dry Applicator SP	70'300cuft	365,000	350	8	16.98	0.015	0.29	0.39	0.29	0.97	1.88	2.86
Sprayer 600-750gal	60' 175hp	216,000	350	8	9.00	0.017	0.33	0.24	0.20	0.78	1.30	2.08
Sprayer 600-825gal	80' 175hp	225,000	350	8	11.81	0.013	0.25	0.23	0.15	0.65	1.01	1.66
Sprayer 600-825gal	90' 250hp	322,000	350	8	12.73	0.011	0.22	0.22	0.20	0.65	1.29	1.95
Sprayer 800gal	100' 250hp	324,000	350	8	14.15	0.010	0.20	0.22	0.18	0.61	1.17	1.78
Sprayer 800gal	80' 250hp	292,000	350	8	12.86	0.013	0.25	0.26	0.20	0.72	1.31	2.04
Sprayer 1000-1400gal	90' 275hp	322,000	350	8	14.15	0.010	0.20	0.22	0.18	0.61	1.16	1.77
Sprayer 1000gal	100' 300hp	365,000	350	8	15.44	0.010	0.20	0.24	0.20	0.66	1.31	1.97
Sprayer 1200+gal	120' 300hp	392,000	350	8	15.44	0.008	0.16	0.20	0.18	0.56	1.18	1.74

Notes:

 ${\tt Labor: includes \ allocated \ labor \ plus \ any \ additional \ labor \ from \ self-propelled \ machine.}$

Direct: Does not include interest on operating capital.

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Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2021

Bed-Paratill w/ro Bed-Paratill w/ro Bed-Paratill w/ro Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Rigid	4R-30 4R-38 6R-38 8R-38	MFWD 225	dollars	hours	Wears									
Bed-Paratill w/ro Bed-Paratill w/ro Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Rigid	4R-38 6R-38	MFWD 225			ycars	hr/ac				\$	/acre			
Bed-Paratill w/ro Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Rigid	6R-38		18,700	150	12	0.204	2.99	3.62	1.37	1.48	9.48	2.29	9.06	20.85
Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Rigid		MFWD 225	18,700	150	12	0.160	2.36	2.85	1.08	1.17	7.47	1.81	7.14	16.42
Bed-Rip/Disk Fold. Bed-Rip/Disk Fold. Bed-Rip/Disk Rigid		MFWD 225 MFWD 190	25,500 46,900	150 300	12 20	0.107	1.57	1.90	0.99	0.78	5.25 2.78	1.65 0.76	4.77	11.68
Bed-Rip/Disk Rigid	12R-30	MFWD 225	67,900	300	20	0.061	0.90	1.09	0.20	0.44	2.65	0.93	2.73	6.32
_	12R-38	MFWD 225	67,900	300	20	0.046	0.67	0.81	0.15	0.33	1.99	0.70	2.05	4.74
	4R-30	MFWD 190	21,300	300	20	0.184	2.71	2.76	0.19	1.12	6.79	0.88	6.83	14.51
Bed-Rip/Disk Rigid Bed-Rip/Disk Rigid	4R-38 6R-30	MFWD 190 MFWD 190	21,300 29,700	300 300	20 20	0.146	2.15	2.19	0.15	0.88	5.39 4.58	0.70	5.42 4.55	11.51
Bed-Rip/Disk Rigid	6R-38	MFWD 190	29,700	300	20	0.097	1.42	1.45	0.14	0.58	3.61	0.64	3.59	7.86
Bed-Rip/Disk Rigid	8R-30	MFWD 190	39,800	300	20	0.139	2.04	2.07	0.27	0.84	5.23	1.24	5.13	11.61
Bed-Rip/Disk Rigid	8R-38	MFWD 190	39,800	300	20	0.073	1.07	1.09	0.14	0.44	2.75	0.65	2.70	6.10
Bed-Rip/Disk/Cond. Bed-Rip/Disk/Cond.	6-Row 8-Row	MFWD 225 MFWD 225	24,800 33,000	150 150	12 12	0.107	1.57	1.90	0.96	0.78	5.23 4.16	1.60 1.60	4.77 3.58	11.60 9.35
Bed-Subsoil Fold	8R-38	MFWD 225	46,900	150	12	0.080	1.18	1.43	1.36	0.58	4.57	2.27	3.58	10.43
Bed-Subsoil Fold	8R-38 2x1	MFWD 225	67 , 900	150	12	0.053	0.78	0.95	1.31	0.39	3.45	2.19	2.38	8.03
Bed-Subsoil Fold	12R-38	MFWD 225	67,900	150	12	0.053	0.78	0.95	1.31	0.39	3.45	2.19	2.38	8.03
Bed-Subsoil Rigid Bed-Subsoil Rigid	4R-30 4R-38	MFWD 225 MFWD 225	17,500 16,800	150 150	12 12	0.204	2.99	3.62 2.85	1.29	1.48	9.39 7.36	2.15	9.06 7.14	20.62
Bed-Subsoil Rigid	4R-30 6R-30	MFWD 225	24,300	150	12	0.136	1.99	2.41	1.19	0.99	6.60	1.02	6.04	14.63
Bed-Subsoil Rigid	6R-38	MFWD 225	25,300	150	12	0.107	1.57	1.90	0.98	0.78	5.24	1.63	4.77	11.66
Bed-Subsoil Rigid	8R-30	MFWD 225	32,500	150	12	0.102	1.49	1.81	1.19	0.74	5.25	1.99	4.53	11.78
Bed-Subsoil Rigid	8R-38	MFWD 225	33,600	150	12	0.080	1.18	1.43	0.97	0.58	4.18	1.63	3.58	9.40
Bed/Disk (Hipper) Bed/Disk (Hipper)	4R-38 6R-38	MFWD 150 MFWD 170	10,500 16,200	160 160	10 10	0.147	2.16	1.74	0.38	0.65	4.95 3.66	0.98	3.83	9.78 7.68
Bed/Disk (Hipper)	8R-30	MFWD 170	20,800	160	10	0.093	1.37	1.40	0.48	0.56	3.83	1.24	3.46	8.54
Bed/Disk (Hipper)	8R-38 2x1	MFWD 190	51,400	160	10	0.049	0.72	0.73	0.63	0.29	2.39	1.61	1.82	5.83
Bed/Disk (Hipper)	12R-30	MFWD 225	40,100	160	10	0.062	0.91	1.10	0.62	0.45	3.10	1.59	2.77	7.47
Bed/Disk (Hipper)	12R-38	MFWD 225	51,400	160	10	0.049	0.72	0.87	0.63	0.35	2.59	1.61	2.18	6.39
Bed/Disk (Hipper) Bed/Disk (Hipper)Fl	16R40 8R-38	MFWD 300 MFWD 190	60,800 22,000	160 160	10 10	0.035	0.51	0.83	0.53	0.35	2.24	1.37	2.16	5.78 6.83
Bed/Disk (Hipper)Rd	8R-38	MFWD 190	19,700	160	10	0.074	1.08	1.10	0.36	0.44	3.01	0.93	2.73	6.68
Bed/Disk w/roller	8R-30	MFWD 190	26,900	160	10	0.093	1.37	1.40	0.63	0.56	3.97	1.60	3.46	9.04
Bed/Disk w/roller	8R-38	MFWD 190	30,800	160	10	0.074	1.08	1.10	0.57	0.44	3.21	1.45	2.73	7.41
Bed/Disk w/roller Bed/Lister	12R-30/40 4R-38	MFWD 225 MFWD 150	50,900 18,100	160 160	10 8	0.062	0.91 3.35	1.10	0.79	0.45	3.27 8.03	2.02	2.77 5.93	8.07 16.92
Bed/Lister	6R-38	MFWD 150	20,400	160	8	0.120	1.76	1.41	0.57	0.53	4.29	1.75	3.12	9.16
Bed/Lister	8R-30	MFWD 190	24,900	160	8	0.114	1.67	1.70	0.66	0.69	4.74	2.03	4.21	10.99
Bed/Lister	8R-38	MFWD 190	25,000	160	8	0.090	1.32	1.35	0.52	0.54	3.75	1.61	3.33	8.70
Bed/Lister Bed/Lister	8R-38 2x1 12R-38	MFWD 190 MFWD 225	40,400	160 160	8	0.060	0.88	0.89	0.56	0.36	2.71 2.95	1.73	2.22	6.67 7.35
Bed/Lister	16R-30	MFWD 225	54,700	160	8	0.035	0.51	0.62	0.45	0.25	1.84	1.37	1.55	4.77
Bed/Lister	16R40	MFWD 300	57,000	160	8	0.043	0.63	1.01	0.57	0.43	2.65	1.75	2.63	7.04
Bed/Lister-Roll-Fo	8R-38	MFWD 190	24,300	160	10	0.095	1.40	1.43	0.58	0.58	4.00	1.48	3.54	9.03
Bed/Lister-Roll-Fo Bed/Lister-Roll-Fo	12R-30 12R-38	MFWD 225 MFWD 225	37,800 36,700	160 160	10 10	0.080	1.18	1.43	0.76 0.58	0.58	3.97 3.11	1.94	3.58	9.51 7.44
Bed/Lister-Roll-Fo	16R-30	MFWD 225	48,700	160	10	0.060	0.89	1.07	0.73	0.44	3.14	1.88	2.69	7.72
Bed/Lister-Roll-Ri	8R-38	MFWD 190	25,000	160	10	0.095	1.40	1.43	0.59	0.58	4.02	1.52	3.54	9.09
Blade-Box	6'-7'	MFWD 105	1,470	200	20	0.020	0.29	0.16	0.01	0.04	0.51	0.01	0.26	0.78
Blade-Box	8'-10'	MFWD 105 MFWD 105	3,830 6,190	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Box Blade-Scraper	12'-16' 6'-7'	MFWD 105	1,270	200 200	20 20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	8'-10'	MFWD 105	3,870	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	12'-16'	MFWD 105	9,810	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boll Buggy Boll Buggy	4R-38 (250) 4R-38 (350)		30,500 30,500	200 200	10 10	0.257	3.78 3.78	3.85	1.96 1.96	1.56		3.84	9.52 9.52	24.54
Boll Buggy	4R2x1 (350)		30,500	200	10	0.172	2.52	2.57	1.31		7.46	2.57	6.36	16.40
Boll Buggy	6R-30 (355)		30,500	200	10	0.218	3.20		1.66		9.45	3.25	8.06	20.78
Boll Buggy	6R-38 (355)		30,500	200	10	0.172	2.52		1.31	1.04	7.46	2.57	6.36	16.40
Chisel Plow-Folding Chisel Plow-Folding	24' 32'	MFWD 190 MFWD 225	43,500 54,500	150 150	12 12	0.076	1.12	1.14		0.46	3.93 3.42	2.00	2.82	8.75 7.88
Chisel Plow-Folding	42'	MFWD 225	65,700	150	12	0.037	0.64	0.78	1.04	0.42			1.95	6.48
Chisel Plow-Folding	50 '	MFWD 225	85,900	150	12	0.036			1.14	0.26			1.64	6.16
Chisel Plow-Folding	61'	MFWD 225	99,100	150	12	0.030	0.44		1.08	0.22	2.28	1.80	1.34	5.44
Chisel Plow-Rigid	10' 15'	MFWD 170	7,790	150	12	0.184	2.71	2.47	0.52	0.92	6.63	0.86		13.13
Chisel Plow-Rigid Chisel Plow-Rigid	20'	2WD 130 MFWD 225	13,200 13,400	150 150	12 12	0.123	1.80	1.26	0.58	0.43	4.09 4.57	0.97 0.82	2.52 4.55	7.60 9.95
Cultivate	4R-30	2WD 105	14,600	150	10	0.206		1.70	0.80	0.45	5.99	2.04		10.70
Cultivate	4R-38	2WD 105	14,200	150	10	0.162	2.38	1.34	0.61	0.32	4.66	1.56	1.90	8.14
Cultivate	6R-30	MFWD 150	18,500	150	10	0.137	2.01	1.62	0.67	0.61		1.72		10.23
Cultivate Cultivate	6R-38 8R-30	MFWD 150 MFWD 190	19,300 23,800	150 150	10 10	0.108	1.59 1.51	1.28	0.55 0.65	0.48	3.91 4.33	1.42	2.81	8.16 9.81
Cultivate	8R-38	MFWD 190 MFWD 190	28,400	150	10	0.103	1.08	1.10	0.65	0.62	3.18	1.42	2.72	7.33
Cultivate	8R-38 2x1		35,200	150	10	0.054	0.79	0.81	0.50	0.32		1.29	2.00	5.75
Cultivate	12R-30	MFWD 225	42,500	150	10	0.068	1.00	1.21	0.77	0.50	3.50	1.98	3.05	8.54
Cultivate	12R-38	MFWD 225	43,800	150	10	0.054	0.79	0.96	0.63	0.39	2.78	1.61	2.40	6.81
Cultivate & Post	16R-30 4R-30	MFWD 225 2WD 105	58,400 21,900	150 150	10 10	0.051	0.75 4.34	0.91	0.80	0.37	2.84 8.79	2.04	2.28	7.18 15.28
Cultivate & Post	4R-38	2WD 103 2WD 105	21,600	150	10	0.220		2.73	0.99			2.86		11.98
			, 000	100	10		J. 12				0.50			tinue

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2021 (continued)

Item Name	Size	Power Unit	Purchase Price			Perf Rate	Labor	Fuel			Total Direct		ed P.U.	Total Cost
			dollars	hours	years	hr/ac				\$	/acre			
Cultivate & Post	6R-30	MFWD 150	25,900	150	10	0.146	2.89	2.60	1.01	0.64	7.15	2.91	4.19	14.26
Cultivate & Post	6R-38	MFWD 150	26,600	150	10	0.115	2.28	2.05	0.82	0.50	5.67	2.36	3.31	11.34
Cultivate & Post	8R-30	MFWD 190	31,200	150	10	0.110	2.11	1.64	0.91	0.66	5.34	2.33	4.06	11.73
Cultivate & Post	8R-38	MFWD 190	35,800	150	10	0.086	1.67	1.30	0.83	0.52	4.32	2.11	3.21	9.65
Cultivate & Post	8R-38 2x1 12R-30	MFWD 190	45,400 49,800	150 150	10 10	0.057	1.11	0.86 1.29	0.70	0.35	3.03 4.21	1.78	2.13	6.95 9.95
Cultivate & Post Cultivate & Post	12R-38	MFWD 225 MFWD 225	54,000	150	10	0.073	1.40	1.02	0.83	0.33	3.39	2.48	3.25 2.56	8.08
Cultivate & Post	16R-30	MFWD 225	68,600	150	10	0.055	1.05	0.97	1.00	0.40	3.43	2.56	2.44	8.44
Disk & Incorporate	14'	2WD 130	33,700	200	10	0.149	2.87	1.53	1.51	0.52	6.44	2.57	3.07	12.09
Disk & Incorporate	20'	MFWD 190	52,400	200	10	0.092	1.77	1.38	1.45	0.56	5.17	2.46	3.41	11.05
Disk & Incorporate	24'	MFWD 190	53,600	200	10	0.087	1.67	1.30	1.40	0.52	4.91	2.38	3.22	10.52
Disk & Incorporate	28'	MFWD 225	63,300	200	10	0.074	1.43	1.32	1.42	0.54	4.72	2.41	3.32	10.46
Disk & Incorporate Disk Harrow	32' 14'	MFWD 225	68,700 26,400	200 180	10 10	0.065	1.25	1.16	1.34	0.47	4.24 5.02	2.29	2.90	9.44
Disk Harrow	20'	2WD 130 MFWD 190	45,000	180	10	0.140	2.05	1.45	1.02	0.49	4.73	2.50	3.62	10.86
Disk Harrow	24'	MFWD 190	46,200	180	10	0.030	1.20	1.22	1.05	0.49	3.97	2.14	3.02	9.13
Disk Harrow	28'	MFWD 225	56,000	180	10	0.070	1.02	1.24	1.09	0.51	3.87	2.22	3.11	9.21
Disk Harrow	32'	MFWD 225	61,400	180	10	0.061	0.90	1.08	1.04	0.44	3.48	2.13	2.72	8.34
Disk Harrow	42'	MFWD 225	107,000	180	10	0.046	0.68	0.82	1.39	0.34	3.24	2.83	2.07	8.15
Disk Harrow 40-100hp	14'	2WD 75	16,700	180	10	0.140	2.05	0.82	0.65	0.16	3.70	1.32	0.97	6.01
Disk Heavy	14'	MFWD 150	26,400	180	10	0.145	2.14	1.72	1.07	0.65	5.58	2.18	3.79	11.56
Disk Heavy Disk Heavy	20' 28'	MFWD 190 MFWD 225	45,000 56,000	180 180	10 10	0.097	1.42	1.45	1.21	0.58	4.69 4.18	2.48	3.59	10.76
Disk Ripper	15 '	MFWD 225	50,800	180	10	0.075	1.11	2.41	1.17	0.99	7.32	3.91	6.04	17.29
Ditcher		2WD 130	6,120	200	10	0.020	0.29	0.20	0.04	0.07	0.61	0.06	0.41	1.09
Ditcher (1m/160a)		2WD 130	6,120	200	10	0.009	0.13	0.09	0.02	0.03	0.28	0.02	0.19	0.51
Fert Appl (Liquid)	4R-38	MFWD 150	15,200	150	8	0.154	2.97	1.82	1.56	0.69	7.05	1.70	4.01	12.78
Fert Appl (Liquid)	6R-30	MFWD 170	17,900	150	8	0.130	2.51	1.75	1.56	0.65	6.48	1.70	3.99	12.18
Fert Appl (Liquid)	6R-38	MFWD 170	17,900	150	8	0.103	1.98	1.38	1.23	0.51	5.12	1.34	3.15	9.61
Fert Appl (Liquid)	8R-30 8R-38	MFWD 190 MFWD 190	18,600 20,600	150 150	8	0.098	1.88	1.46	1.21	0.59	5.16 4.19	1.32	3.62 2.86	10.12
Fert Appl (Liquid) Fert Appl (Liquid)	8R-38 2x1	MFWD 190	21,000	150		0.077	0.99	0.77	0.72	0.47	2.80	0.78	1.91	5.50
Fert Appl (Liquid)	12R-30	MFWD 225	24,700	150	8	0.031	1.50	1.39	1.29	0.57	4.76	1.40	3.48	9.66
Fert Appl (Liquid)	12R-38	MFWD 225	19,300	150	8	0.051	0.99	0.91	0.66	0.37	2.95	0.72	2.29	5.96
Field Cult & Inc	42'	MFWD 225	69,500	100	10	0.037	0.72	0.66	0.65	0.27	2.32	2.67	1.67	6.67
Field Cult & Inc	50 '	MFWD 225	82,200	100	10	0.031	0.60	0.56	0.65	0.23	2.05	2.65	1.40	6.12
Field Cult & Inc Fld	24'	MFWD 170	38,500	100	10	0.066	1.26	0.88	0.63	0.33	3.12	2.59	2.01	7.73
Field Cult & Inc Fld	32'	MFWD 190	50,900	100	10	0.049	0.95	0.74	0.63	0.30	2.62	2.57	1.83	7.03
Field Cult & Inc Rdg Field Cultivate Fld	12' 24'	2WD 150 MFWD 170	19,600 31,100	100 100	10 10	0.132	2.53	1.56	0.64	0.45	5.20 2.54	2.64 1.97	2.66 1.89	10.51
Field Cultivate Fld	32'	MFWD 170	43,500	100	10	0.046	0.68	0.69	0.50	0.28	2.17	2.06	1.72	5.96
Field Cultivate Fld	42'	MFWD 225	59,400	100	10	0.035	0.52	0.62	0.52	0.25	1.93	2.15	1.57	5.66
Field Cultivate Fld	50 '	MFWD 225	69,000	100	10	0.029	0.43	0.52	0.51	0.21	1.69	2.10	1.32	5.12
Field Cultivate Rdg	12'	2WD 150	12,300	100	10	0.124	1.82	1.46	0.38	0.43	4.11	1.56	2.50	8.17
Grain Cart Corn	500 bu	MFWD 190	27,300	200	12	0.025	0.37	0.37	0.18	0.15	1.09	0.31	0.93	2.33
Grain Cart Corn	700 bu	MFWD 190	44,000	200	12	0.025	0.37	0.37	0.30	0.15	1.20	0.50	0.93	2.64
Grain Cart Corn Grain Cart Rice	1000 bu 500 bu	MFWD 225 MFWD 190	57,900 27,300	200 200	12 12	0.025	0.37	0.44	0.39	0.18	1.40	0.66 0.77	1.12	3.18 5.77
Grain Cart Rice	700 bu	MFWD 190	44,000	200	12	0.055	0.80	0.82	0.40	0.37	2.61	1.09	2.03	5.74
Grain Cart Rice	1000 bu	MFWD 190	57,900	200	12	0.045	0.67	0.68	0.71	0.27	2.35	1.19	1.69	5.24
Grain Cart Soybean	500 bu	MFWD 190	27,300	200	12	0.025	0.37	0.38	0.18	0.15	1.09	0.31	0.94	2.35
Grain Cart Soybean	700 bu	MFWD 190	44,000	200		0.021		0.31				0.42		2.21
Grain Cart Soybean	1000 bu	MFWD 190	57,900	200		0.021		0.31				0.55		2.43
Grain Cart Wht/Sor	500 bu	MFWD 190	27,300	200		0.025			0.18	0.15		0.31	0.94	2.35
Grain Cart Wht/Sor Grain Cart Wht/Sor	700 bu 1000 bu	MFWD 190 MFWD 190	44,000 57,900	200 200	12 12		0.31	0.31		0.12		0.42	0.78	2.21
Grain Drill	1000 bu	2WD 130	28,000	150		0.021	4.47		1.97			3.64		16.57
Grain Drill	12'	2WD 130	28,100	150	8	0.157		1.60			7.55	3.05	3.22	13.82
Grain Drill	15'	MFWD 150	33,900	150	8	0.125	2.98	1.48	1.59	0.56	6.62	2.94	3.26	12.83
Grain Drill	20'	MFWD 170	41,400	150		0.094			1.46			2.69		11.00
Grain Drill	24'	MFWD 190	66,800	150		0.078		1.17		0.47	5.48	3.62		
Grain Drill	30'	MFWD 225	68,500	150		0.062		1.11			4.67			10.44
Grain Drill Grain Drill & Pre	35' 10'	MFWD 225 2WD 130	91,900 35,400	150 150	8	0.053	1.27 4.82	0.95	1.85	0.39	4.48	3.42 4.96		19.44
Grain Drill & Pre	12'	2WD 130	35,400	150		0.169		1.73						16.20
Grain Drill & Pre	15'	MFWD 150	41,200	150		0.135		1.59		0.60				14.87
Grain Drill & Pre	20'	MFWD 170	48,800	150	8	0.101	2.41	1.35	1.85	0.50	6.13			12.65
Grain Drill & Pre	24'	MFWD 190	74,200	150		0.084		1.26						13.60
Grain Drill & Pre	30'	MFWD 225	75,800	150		0.067		1.19				3.54		
Grain Drill & Pre	35'	MFWD 225	101,000	150	8	0.058	1.37		2.19					11.64
Grain Drill & Pre T	8R-38	MFWD 225	59,000	150	1.0	0.062	1.49				4.45			9.80
Harrow - Folding Harrow - Folding	24' 30'	MFWD 190 MFWD 190	13,800 15,300	200 200	10	0.064	0.94	0.96 0.77	0.31	0.39	2.62	0.45	2.39	5.46 4.44
Harrow - Folding	40'	MFWD 190	21,300	200		0.031	0.75	0.58	0.27	0.23	1.67		1.43	3.53
Harrow - Folding	48'	MFWD 225	26,000	200		0.030	0.47		0.29		1.57			3.44
Header - Corn	6R-30	265 hp	51,400	300		0.170	2.49		2.18					44.90
Header - Corn	6R-38	265 hp	52,300	300		0.134		2.80						
Header - Corn	8R-30	265 hp	66,800	300	8	0.127	1.87	2.66	2.13	5.20	11.87	3.09		
													(cont	inued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2021 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	R&M Imp. P.U.		Fixed Imp. P.U.	Total Cost
			dollars	hours	years	hr/ac				3/acre		
Header - Corn	8R-38	325 hp	67,900	300	8	0.100	1.48	2.58	1.71 4.15	9.93	2.48 15.90	28.32
Header - Corn	12R-20	325 hp	102,000	300	8	0.127	1.87	3.26	3.25 5.25		4.73 20.11	38.50
Header - Corn	12R-30	325 hp	112,000	300	8	0.085	1.24	2.17	2.38 3.50		3.46 13.41	26.19
Header - Draper (CL) Header - Draper (CL)	25' Rigid 30' Rigid	265 hp 325 hp	61,400 73,700	300 300	8	0.203	2.98	4.23	2.85 8.27 2.85 6.96		4.30 31.66 4.30 26.65	54.31 47.60
Header - Draper (CL)	36' Rigid	355 hp	77,300	300	8	0.141	2.40	3.94	2.49 5.89		3.76 22.55	40.71
Header - Draper (CL)	40' Rigid	425 hp	82,700	300	8	0.126	1.86	4.24	2.40 5.76		3.62 22.06	39.97
Header - Draper (SL)	25' Rigid	325 hp	61,400	300	8	0.176	2.58	4.50	2.47 7.24		3.73 27.72	48.26
Header - Draper (SL)	30' Rigid	325 hp	73,700	300	8	0.146	2.15	3.75	2.47 6.03		3.73 23.10	41.25
Header - Draper (SL) Header - Draper (SL)	36' Rigid 40' Rigid	355 hp 425 hp	77,300 82,700	300 300	8	0.122	1.79 1.61	3.41	2.16 5.10 2.08 4.99		3.26 19.54 3.14 19.12	35.28 34.64
Header -RiceStrp(CL)	20'	265 hp	50,600	300	8	0.253	3.72	5.29	3.21 10.33		4.66 39.57	66.81
Header -RiceStrp(CL)	24'	325 hp	54,000	300	8	0.211	3.10	5.41	2.85 8.70	20.07	4.14 33.31	57.54
Header -RiceStrp(CL)	32'	325 hp	60,800	300	8	0.158	2.32	4.06	2.41 6.52		3.50 24.98	43.82
Header -RiceStrp(SL)	20'	265 hp	50,600	300	8	0.220	3.22	4.59	2.78 8.96		4.04 34.30 3.59 28.87	57.90
Header -RiceStrp(SL) Header -RiceStrp(SL)	24' 32'	325 hp 325 hp	54,000 60,800	300 300	8	0.183	2.69	4.69 3.51	2.47 7.54 2.09 5.65		3.03 21.65	49.87 37.97
Header -Soybean	22' Flex	265 hp	33,700	300	8	0.116	1.70	2.42	0.97 4.72		1.42 18.10	29.35
Header -Soybean	25' Flex	325 hp	36,200	300	8	0.102	1.49	2.61	0.92 4.20		1.34 16.09	26.67
Header -Soybean	30' Flex	325 hp	43,800	300	8	0.085	1.24	2.17	0.93 3.50		1.35 13.41	22.62
Header -Soybean Header Wheat/Sorghum	35' Flex 22' Rigid	355 hp 265 hp	50,100 19,800	300 300	8	0.072	1.07	2.04	0.91 3.04 0.57 4.72		1.32 11.66 0.83 18.10	20.07
Header Wheat/Sorghum	25' Rigid	265 np 325 hp	25,400	300	8	0.116	1.49	2.42	0.64 4.20		0.83 18.10	26.00
Header Wheat/Sorghum	30' Rigid	325 hp	29,100	300	8	0.085	1.24	2.17	0.61 3.50		0.89 13.41	21.86
Land Plane	50'x16'	MFWD 190	9,700	200	10	0.151	2.22	2.26	0.29 0.93	5.70	0.74 5.60	12.06
Levee Pull & Seed	8 Blade	MFWD 170	9,700	100	10	0.003	0.05	0.04	0.00 0.01		0.03 0.10	0.26
Levee Pull (1m/80a) Levee Splitter (1/80	8 blade 32"	MFWD 170 MFWD 150	8,270 8,270	100 100	10 10	0.003	0.05	0.04	0.00 0.01		0.03 0.10 0.03 0.10	0.26
Module Builder	4R-38 (250)		34,700	200	10	0.257	6.11	3.85	2.23 1.56		4.37 9.52	27.68
Module Builder	4R-38 (350)		34,700	200	10	0.257	6.11	3.85	2.23 1.56		4.37 9.52	27.68
Module Builder	4R2x1(350)		34,700	200	10	0.172	4.09	2.57	1.49 1.04	9.20	2.92 6.36	18.50
Module Builder	6R-30 (355)		34,700	200	10	0.218	5.18	3.26	1.89 1.32		3.70 8.06	23.43
Module Builder	6R-38 (355) 10'		34,700 34,400	200 150		0.172	4.09 5.59	2.57	1.49 1.04 3.04 0.83		2.92 6.36 5.60 4.83	18.50
NT Grain Drill NT Grain Drill	12'	2WD 130 2WD 130	46,600	150	8	0.233	3.88	1.67	2.86 0.5		5.27 3.35	17.62
NT Grain Drill	15'	MFWD 150	56,000	150	8	0.130	3.10	1.54	2.74 0.58		5.06 3.40	16.45
NT Grain Drill	20'	MFWD 170	67,400	150	8	0.098	2.33	1.31	2.48 0.49		4.57 2.99	14.18
NT Grain Drill	24'	MFWD 190	98,000	150	8	0.081	1.94	1.22	3.00 0.49		5.54 3.02	15.23
NT Grain Drill NT Grain Drill & Pre	30' 10'	MFWD 225 2WD 130	104,300 41,800	150 150	8	0.065	1.55	1.16	2.56 0.47 3.31 0.74		4.71 2.90 6.10 4.34	13.37
NT Grain Drill & Pre	12'	2WD 130	54,000	150	8	0.176	4.18	1.80	3.56 0.62		6.57 3.61	20.37
NT Grain Drill & Pre	15'	MFWD 150	63,300	150	8	0.141	3.34	1.66	3.34 0.63		6.16 3.66	18.82
NT Grain Drill & Pre	20'	MFWD 170	74,700	150	8	0.105	2.51	1.41	2.96 0.52		5.45 3.22	16.10
NT Grain Drill & Pre NT Grain Drill & Pre	24'	MFWD 190	105,000	150	8	0.088	2.09	1.31	3.47 0.53		6.39 3.25	17.06
NT Plant&Pre-Folding	30' 8R-38	MFWD 225 MFWD 170	112,000 67,700	150 150	8	0.070	1.67 1.98	1.24	2.96 0.51 2.12 0.41		5.45 3.12 3.91 2.54	14.98 12.10
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	103,000	150	8	0.055	1.32	0.74	2.15 0.2		3.96 1.69	10.15
NT Plant&Pre-Folding	12R-20	MFWD 190	82,600	150	8	0.105	2.51	1.58	3.27 0.64	8.01	6.03 3.90	17.95
	12R-30	MFWD 190	91,000	150	8	0.070	1.67	1.05	2.40 0.42		4.43 2.60	12.60
NT Plant&Pre-Folding	12R-38	MFWD 190	103,000 137,000	150	8	0.055	1.32	0.83	2.15 0.33			10.66 12.04
NT Plant&Pre-Folding NT Plant&Pre-Folding	16R-30 23R-15	MFWD 190 MFWD 190	186,000	150 150	8	0.052	1.25 1.74	0.79 1.09	2.71 0.32 5.12 0.44		5.00 1.95 9.43 2.71	20.56
NT Plant&Pre-Folding	24R-20	MFWD 190	207,000	150	8	0.052	1.25		4.10 0.32			15.98
NT Plant&Pre-Folding	24R-30	MFWD 190	217,000	150	8	0.035	0.83	0.52	2.86 0.21		5.28 1.30	11.03
NT Plant&Pre-Folding	31R-15	MFWD 225	222,000	150	8	0.054	1.29	0.96	4.55 0.39			18.02
NT Plant&Pre-Folding NT Plant&Pre-Rigid	32R-15 4R-30	MFWD 225 2WD 130	216,200 34,600	150 150	8	0.052	1.25	0.93	4.28 0.38 2.74 0.74		7.89 2.34 5.05 4.34	17.11 20.07
NT Plant&Pre-Rigid	4R-38	2WD 130	36,000	150	8	0.166	3.95	1.70	2.24 0.58		4.14 3.41	16.05
NT Plant&Pre-Rigid	6R-30	MFWD 150	44,300	150	8	0.141	3.34	1.66	2.34 0.63			15.96
NT Plant&Pre-Rigid	6R-38	MFWD 150	43,500	150	8	0.111	2.64		1.81 0.49			12.51
NT Plant&Pre-Rigid	8R-30	MFWD 170	54,500	150	8	0.105	2.51		2.16 0.52			13.82
NT Plant&Pre-Rigid	8R-38	MFWD 170	52,400	150	8	0.083	1.98	1.11	1.64 0.41		3.02 2.54	10.74
NT Plant&Pre-Rigid NT Plant&Pre-Rigid	11R-15 11R-20	MFWD 170 MFWD 170	63,900 63,200	150 150	8	0.143	3.41	1.92 1.54	3.44 0.71 2.73 0.5		6.35 4.38 5.04 3.52	20.24
NT Plant&Pre-Rigid	12R-20	MFWD 190	65,700	150	8	0.105	2.51	1.58	2.60 0.64		4.80 3.90	16.05
NT Plant&Pre-Rigid	12R-30	MFWD 190	82,800	150	8	0.070	1.67	1.05	2.18 0.42	5.34	4.03 2.60	11.98
NT Plant&Pre-Rigid	15R-15	MFWD 190	82,000	150	8	0.113	2.68	1.69	3.47 0.68			19.13
NT Plant&Pre-TwinRow NT Plant&Pre-TwinRow	12R-30/40 8R-30/40	MFWD 225 MFWD 225	170,000 135,000	150 150	8	0.055	1.32	0.98 1.48	3.54 0.40 4.23 0.60		6.53 2.47 7.79 3.71	15.27 19.81
NT Plant-Folding	8R-38	MFWD 225 MFWD 170	60,400	150	8	0.083	1.84	1.48	1.75 0.38		3.23 2.36	10.63
NT Plant-Folding	8R-38 2x1	MFWD 170	93,400	150	8	0.051	1.22	0.69	1.81 0.25		3.33 1.57	8.89
NT Plant-Folding	12R-20	MFWD 190	75,200	150	8	0.098	2.33	1.46	2.76 0.59			15.89
NT Plant-Folding	12R-30	MFWD 190	81,700	150	8	0.065	1.55	0.97			3.69 2.41	11.05
NT Plant-Folding NT Plant-Folding	12R-38	MFWD 190	93,400	150	8	0.051	1.22	0.77	1.81 0.33		3.33 1.91	9.37
NUL Blant-Rolding	16R-30	MFWD 190	128,000	150 150	8	0.049	1.16	0.73	2.35 0.29			10.71 18.36
_	220 15											
NT Plant-Folding	23R-15 24R-20	MFWD 190 MFWD 190	176,000				1.61		4.50 0.41 3.62 0.29			
_	23R-15 24R-20 24R-30	MFWD 190 MFWD 190 MFWD 190	197,000 197,000 204,000	150 150	8 8	0.049	1.16	0.73	3.62 0.29 2.50 0.19	5.82		14.32

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2021 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel		P.U.	Total Direct		ked P.U.	Total Cost
			dollars	hours	years	hr/ac				\$	/acre			
NT Plant-Folding	32R-15	MFWD 225	207,000	150	8	0.049	1.16	0.87	3.81	0.35	6.20	7.02	2.17	15.40
NT Plant-Rigid	4R-30	2WD 130	27,200	150	8	0.196	4.66	2.01	2.00	0.69	9.37	3.69	4.03	17.09
NT Plant-Rigid	4R-38	2WD 130	28,600 37,000	150 150	8	0.154	3.67 3.10	1.58	1.65	0.54	7.46	3.05	3.17	13.69 13.80
NT Plant-Rigid NT Plant-Rigid	6R-30 6R-38	MFWD 150 MFWD 150	36,100	150	8	0.130	2.45	1.22	1.39	0.38	5.53	2.57	3.40	10.80
NT Plant-Rigid	8R-30	MFWD 170	47,100	150	8	0.098	2.33	1.31	1.73	0.49	5.87	3.19	2.99	12.06
NT Plant-Rigid	8R-38	MFWD 170	45,000	150	8	0.077	1.84	1.03	1.31	0.38	4.58	2.41	2.36	9.36
NT Plant-Rigid	11R-15	MFWD 170	56,500	150	8	0.133	3.17	1.78	2.83	0.66	8.46	5.21	4.07	17.74
NT Plant-Rigid	11R-20 12R-20	MFWD 170	55,800	150	8	0.107	2.54	1.43	2.24	0.53	6.76	4.13	3.27	14.17 14.13
NT Plant-Rigid NT Plant-Rigid	12R-20 12R-30	MFWD 190 MFWD 190	58,400 73,500	150 150	8	0.098	2.33	0.97	2.15	0.59	6.54 4.73	3.32	3.62 2.41	10.48
NT Plant-Rigid	15R-15	MFWD 190	72,700	150	8	0.105	2.49	1.57	2.86	0.63	7.56	5.27	3.88	16.72
NT Plant-TwinRow	12R-30/40	MFWD 225	160,000	150	8	0.051	1.22	0.91	3.10	0.37	5.62	5.71	2.29	13.62
NT Plant-TwinRow	8R-30/40	MFWD 225	128,000	150	8	0.077	1.84	1.37	3.72	0.56	7.51	6.86	3.44	17.82
Peanut Cond.& Lifter Peanut Conditioner	6-Row 6-Row	MFWD 190 MFWD 190	14,800 17,500	300 300	20 20	0.100	1.46	1.49	0.24	0.60	3.81	0.34	3.69	7.86 7.97
Peanut Dig/Invertor	4R-30	MFWD 190	33,500	300	15	0.235	3.46	3.52	1.96	1.42	10.38	2.26	8.71	21.36
Peanut Dig/Invertor	4R-38	MFWD 190	33,500	300	15	0.186	2.73	2.78	1.55	1.12	8.20	1.78	6.88	16.86
Peanut Dig/Invertor	6R-38	MFWD 190	47,900	300	15	0.124	1.82	1.85	1.04	0.75	5.47	1.70	4.58	11.75
Peanut Dump Cart	6-Row	MFWD 190	55,800	300	20	0.310	4.55	4.63	1.00	1.87	12.07		11.45	27.41
Peanut Harvester Peanut Harvester	4R-30 4R-38	MFWD 225 MFWD 225	155,000 155,000	300 300	20 20	0.849	12.47 13.71		7.46	6.18	41.19 45.29	30.96		105.68 117.73
Peanut Harvester	6R-38	MFWD 225	172,000	300	20	0.625		11.07	5.19	4.55		22.97		80.71
Peanut Lifter	6-Row	MFWD 225	7,440	300	20	0.100	1.46	1.77	0.15	0.72	4.12	0.15	4.43	8.71
Peanut Plt&Pre Fold.	12R-38	MFWD 190	92,700	150	8	0.080	1.90	1.20	2.79	0.48	6.39	5.14	2.97	14.51
Peanut Plt&Pre Rigid	8R-30	MFWD 190	47,800	150	8	0.152	3.62	2.28	2.73	0.92	9.57	5.04	5.64	20.26
Peanut Plt&Pre Rigid Peanut Ptlt&PreTwin	8R-38 8R-30/40	MFWD 190 MFWD 190	45,700 129,000	150 150	8	0.120	2.86	1.80	2.06	0.73	7.47	3.81	4.46 4.46	15.75 26.47
Pipe Spool 160ac	1/4m roll	2WD 130	5,400	15	12	0.120	0.10	0.03	0.00	0.73	0.15	0.10	0.06	0.32
Pipe Trailer 1m/160a	30'	2WD 130	2,700	100	15	0.003	0.19	0.03	0.00	0.01	0.24	0.00	0.07	0.32
Plant & Pre-Folding	8R-38	MFWD 170	61,000	150	8	0.080	1.90	1.07	1.83	0.40	5.21	3.38	2.44	11.04
Plant & Pre-Folding	8R-38 2x1	MFWD 170	92,700	150	8	0.053	1.26	0.71	1.85	0.26	4.10	3.42	1.62	9.16
Plant & Pre-Folding Plant & Pre-Folding	12R-20 12R-30	MFWD 190 MFWD 190	72,600 81,000	150 150	8	0.101	2.41	1.51	2.76	0.61	7.30 5.08	5.09 3.78	3.75 2.50	16.15 11.37
Plant & Pre-Folding	12R-30 12R-38	MFWD 190	92,700	150	8	0.053	1.26	0.79	1.85	0.41	4.24	3.42	1.97	9.64
Plant & Pre-Folding	16R-30	MFWD 190	124,000	150	8	0.050	1.20	0.75	2.36	0.30	4.63	4.34	1.87	10.85
Plant & Pre-Folding	23R-15	MFWD 190	166,000	150	8	0.070	1.67	1.05	4.38	0.42	7.54	8.08	2.60	18.23
Plant & Pre-Folding	24R-20	MFWD 190	187,000	150	8	0.050	1.20	0.75	3.56	0.30	5.83	6.55	1.87	14.26
Plant & Pre-Folding Plant & Pre-Folding	24R-30 31R-15	MFWD 190 MFWD 225	197,000 196,000	150 150	8	0.033	0.80	0.50	2.50	0.20	4.01 6.41	4.60 7.10	1.25	9.87 15.84
Plant & Pre-Folding	32R-15	MFWD 225	189,000	150	8	0.052	1.20	0.89	3.59	0.36	6.07	6.62	2.25	14.95
Plant & Pre-Rigid	4R-30	2WD 130	31,600	150	8	0.203	4.82	2.07	2.40	0.71	10.02	4.43	4.16	18.62
Plant & Pre-Rigid	4R-38	2WD 130	32,600	150	8	0.159	3.79	1.63	1.95	0.56	7.95	3.60	3.28	14.83
Plant & Pre-Rigid Plant & Pre-Rigid	6R-30 6R-38	MFWD 150 MFWD 150	39,300 38,500	150 150	8	0.135	3.21 2.53	1.59	1.99	0.60	7.41 5.82	3.67 2.84	3.51 2.77	14.60 11.43
Plant & Pre-Rigid	8R-30	MFWD 130	47,800	150	8	0.100	2.33	1.35	1.82	0.50	6.09	3.35	3.09	12.54
Plant & Pre-Rigid	8R-38	MFWD 170	45,700	150	8	0.080	1.90	1.07	1.37	0.40	4.75	2.53	2.44	9.73
Plant & Pre-Rigid	11R-15	MFWD 170	54,700	150	8	0.148	3.51	1.98	3.04	0.74	9.28	5.60	4.51	19.40
Plant & Pre-Rigid	11R-20	MFWD 170	54,000	150	8	0.110	2.63	1.48	2.24	0.55	6.92	4.14	3.38	14.44
Plant & Pre-Rigid Plant & Pre-Rigid	12R-20 12R-30	MFWD 190 MFWD 190	55,700 72,700	150 150	8 8	0.101	2.41	1.51	2.12	0.61	6.66 4.87	3.90	3.75	14.32 10.77
Plant & Pre-Rigid	15R-15	MFWD 190	69,500	150	8	0.108	2.57		2.83					16.92
Plant & Pre-TwinRow		MFWD 225	160,000	150	8	0.053	1.26		3.20	0.38	5.81			14.09
Plant & Pre-TwinRow	8R-30/40	MFWD 225	129,000	150	8	0.080	1.90		3.88		7.79			18.51
Plant - Folding	8R-38	MFWD 170	53,700	150	8	0.074	1.76		1.50	0.37	4.64	2.76		9.67
Plant - Folding Plant - Folding	8R-38 2x1 12R-20	MFWD 170 MFWD 190	83,400 65,200	150 150	8	0.049	1.17		1.55	0.24	3.64 6.52	2.85 4.24	1.51	8.01 14.25
Plant - Folding	12R-30	MFWD 190	71,700	150	8	0.062	1.49		1.69	0.38	4.50		2.32	9.94
Plant - Folding	12R-38	MFWD 190	83,400	150	8	0.049	1.17		1.55	0.30	3.77		1.83	8.46
Plant - Folding	16R-30	MFWD 190	114,000	150	8	0.047	1.11			0.28	4.12			9.58
Plant - Folding Plant - Folding	23R-15 24R-20	MFWD 190 MFWD 190	157,000 177,000	150 150	8 8	0.065	1.55 1.11	0.97	3.85	0.39	6.78 5.23	7.10 5.76		16.30 12.74
Plant - Folding	24R-30	MFWD 190	184,000	150	8	0.047		0.47		0.19	3.57			8.73
Plant - Folding	31R-15	MFWD 225	187,000	150	8	0.048	1.15	0.86	3.41			6.29		14.25
Plant - Folding	32R-15	MFWD 225	180,000	150	8	0.047	1.11		3.18	0.34	5.47			13.43
Plant - Rigid	4R-30	2WD 130	24,200	150	8	0.188	4.47		1.71		8.78	3.15		15.80
Plant - Rigid Plant - Rigid	4R-38 6R-30	2WD 130 MFWD 150	25,300 32,000	150 150	8 8	0.148	3.52 2.98		1.40	0.52	6.97	2.59 2.77		12.62 12.58
Plant - Rigid	6R-38	MFWD 150	31,100	150	8	0.099	2.35	1.17		0.44	5.12			9.83
Plant - Rigid	8R-30	MFWD 170	40,500	150	8	0.094	2.23		1.43	0.47	5.40			10.91
Plant - Rigid	8R-38	MFWD 170	38,400	150	8	0.074	1.76		1.07	0.37		1.97		8.46
Plant - Rigid	11R-15	MFWD 170	47,300	150	8	0.137	3.26	1.84		0.68	8.23	4.49		16.93
Plant - Rigid	11R-20	MFWD 170	46,600	150	8	0.103	2.44		1.80	0.51	6.14			12.59
Plant - Rigid Plant - Rigid	12R-20 12R-30	MFWD 190 MFWD 190	48,300 63,400	150 150	8	0.094	2.23	1.41	1.70	0.57	5.92 4.30			12.55 9.38
Plant - Rigid	15R-15	2WD 150	60,200	150	8	0.094		1.11	2.12	0.30	5.80			11.63
Plant - TwinRow	12R-30/40	MFWD 225	150,000	150	8	0.049	1.17	0.87	2.79	0.36	5.20	5.14	2.20	12.55
Plant - TwinRow	8R-30/40	MFWD 225	121,000	150	8	0.074	1.76	1.32	3.38	0.54	7.01	6.23		16.55
													(cont	cinued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2021 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel		P.U.	Total Direct	Fix Imp.	P.U.	Total
			dollars	hours	years	hr/ac				\$	/acre			
Roller/Cultipacker	12'	2WD 130	6,720	300	12	0.124	1.82	1.27	0.19	0.43	3.73	0.26	2.55	6.55
Roller/Cultipacker	20'	MFWD 150	10,900	300	12	0.074	1.09	0.88	0.19	0.33	2.50	0.25	1.93	4.69
Roller/Cultipacker	30'	MFWD 170	14,300	300	12	0.049	0.73	0.66	0.16	0.24	1.81	0.22	1.51	3.55
Roller/Cultipacker	38'	MFWD 225	19,600	300	12	0.039	0.57	0.69	0.18	0.28	1.74	0.24	1.74	3.72
Roller/Stubble	20'	2WD 50	12,700	300	12	0.074	1.09	0.29	0.22	0.05	1.66	0.29	0.29	2.25
Roller/Stubble	32' 7'	MFWD 225	22,200	300	12 10	0.046	0.68	0.82	0.24	0.33	2.09 5.47	0.32	2.07	4.48 9.74
Rotary Cutter Rotary Cutter	12'	MFWD 130 2WD 150	4,500 13,100	185 185	10	0.168	2.47	1.16	1.04	0.66	3.98	0.41	3.85 1.97	6.67
Rotary Cutter-Flex	15'	MFWD 150	22,100	185	10	0.078	1.15	0.92	1.40	0.35	3.84	0.95	2.04	6.83
Rotary Cutter-Flex	20'	MFWD 150	30,000	185	10	0.058	0.86	0.69	1.43	0.26	3.25	0.97	1.53	5.76
Row Cond & Inc-Fold.	26'	MFWD 190	28,500	100	10	0.063	1.21	0.94	0.45	0.38	3.00	1.84	2.34	7.19
Row Cond & Inc-Fold.	38'	MFWD 225	38,000	100	10	0.043	0.83	0.76	0.41	0.31	2.33	1.68	1.92	5.94
Row Cond & Inc-Rigid	13'	2WD 130	16,000	100	10	0.126	2.43	1.29	0.50	0.44	4.69	2.07	2.60	9.36
Row Cond & Inc-Rigid	21'	2WD 170	21,600	100	10	0.078	1.50	1.05	0.42	0.29	3.27	1.73	1.78	6.78
Row Cond & Inc-Rigid	26'	MFWD 190	24,700	100	10	0.026	0.51	0.39	0.16	0.16	1.23	0.67	0.98	2.88
Row Cond Folding	26' 38'	MFWD 225 MFWD 225	21,100	100 100	10 10	0.059	0.87	1.05	0.31	0.43	2.68 1.90	1.28	2.65 1.81	6.62 4.87
Row Cond Folding Row Cond Rigid	13'	2WD 130	27,800 8,670	100	10	0.040	1.75	1.22	0.28	0.29	3.65	1.15	2.45	7.16
Row Cond Rigid	21'	2WD 130	14,200	100	10	0.113	1.08	0.99	0.26	0.42	2.61	1.03	1.67	5.36
Row Cond Rigid	26'	MFWD 190	17,300	100	10	0.059	0.87	0.89	0.25	0.36	2.39	1.05	2.20	5.65
Row Cond./Roll-Fol	30'	MFWD 190	46,200	160	10	0.062	0.91	0.93	0.72	0.37	2.95	1.84	2.30	7.10
Row Cond./Roll-Fold.	26'	MFWD 190	26,500	160	10	0.072	1.05	1.07	0.47	0.43	3.05	1.21	2.66	6.93
Row Cond./Roll-Fold.	40'	MFWD 225	34,000	160	10	0.046	0.68	0.83	0.39	0.34	2.25	1.01	2.08	5.35
Row Cond./Roll-Rig	21'	MFWD 190	25,800	160	10	0.089	1.31	1.33	0.57	0.54	3.76	1.46	3.29	8.53
Row Cond./Roll-Rig	26'	MFWD 190	28,400	160	10	0.072	1.05	1.07	0.51	0.43	3.08	1.30	2.66	7.05
Spin Spreader	5 ton	MFWD 190	11,600	100	8	0.042	0.99	0.62	0.27	0.25	2.15	0.53	1.55	4.24
Spray (ATV Ropewick)	75 " 20 '	800 CC	720	200 200	8	0.260	5.00 1.62	0.34	0.08	0.49	5.92 1.96	0.10	1.89	7.93
Spray (ATV) Spray (Band)	27' Fold	MFWD 170	1,690 7,400	200	8	0.062	1.02	0.83	0.00	0.16	2.57	0.07	0.61 1.91	4.73
Spray (Band)	40' Fold	MFWD 170	9,300	200	8	0.042	0.81	0.56	0.18	0.21	1.77	0.21	1.28	3.27
Spray (Band)	50' Fold	MFWD 170	10,100	200	8	0.033	0.65	0.45	0.16	0.16	1.43	0.18	1.03	2.65
Spray (Band)	60' Fold	MFWD 170	13,200	200	8	0.028	0.54	0.37	0.17	0.14	1.23	0.20	0.85	2.29
Spray (Bcast/HB)	13' Rigid	MFWD 150	7,860	200	8	0.130	2.50	1.53	0.47	0.58	5.09	0.55	3.38	9.03
Spray (Bcast/HB)	20' Rigid	MFWD 150	9,400	200	8	0.084	1.62	0.99	0.37	0.37	3.37	0.43	2.19	6.00
Spray (Bcast/HB)	27' Fold	MFWD 170	16,200	200	8	0.062	1.20	0.83	0.47	0.31	2.83	0.55	1.91	5.29
Spray (Bcast/HB)	27' Rigid	MFWD 170	10,900	200	8	0.062	1.20	0.83	0.32	0.31	2.67	0.37	1.91	4.95
Spray (Bcast/HB)	30' Fold 40' Fold	MFWD 170 MFWD 170	18,900 19,100	200 200	8	0.056	1.08	0.75	0.49	0.28	2.62 1.96	0.58	1.71	4.92
Spray (Bcast/HB) Spray (Broadcast)	27 '	MFWD 170	7,400	200	8	0.042	1.20	0.83	0.21	0.21	2.57	0.25	1.20	4.73
Spray (Broadcast)	40'	MFWD 170	9,300	200	8	0.042	0.81	0.56	0.18	0.21	1.77	0.21	1.28	3.27
Spray (Broadcast)	50'	MFWD 170	10,100	200	8	0.033	0.65	0.45	0.16	0.16	1.43	0.18	1.03	2.65
Spray (Broadcast)	60'	MFWD 170	13,200	200	8	0.028	0.54	0.37	0.17	0.14	1.23	0.20	0.85	2.29
Spray (Direct/Hood)	8R-30	MFWD 170	17,000	200	8	0.084	1.62	1.13	0.67	0.42	3.85	0.78	2.57	7.21
Spray (Direct/Hood)	8R-38	MFWD 170	17,900	200	8	0.066	1.28	0.89	0.56	0.33	3.07	0.65	2.03	5.76
Spray (Direct/Hood)	12R-30	MFWD 170	23,900	200	8	0.056	1.08	0.75	0.63	0.28	2.75	0.73	1.71	5.20
Spray (Direct/Hood)	12R-38	MFWD 170	25,100	200	8	0.044	0.85	0.59	0.52	0.22	2.19	0.60	1.35	4.16
Spray (Direct/Layby) Spray (Direct/Layby)	8R-30 8R-38	MFWD 170 MFWD 170	15,500 15,500	200 200	8	0.066	1.62	1.13	0.61	0.42	3.79	0.71	2.57	7.09 5.60
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	19,400	200	8	0.044	0.85	0.59	0.40	0.22	2.07	0.47	1.35	3.90
Spray (Direct/Layby)	12R-30	MFWD 170	19,400	200	8	0.056	1.08	0.75	0.51	0.28	2.63	0.59	1.71	4.94
Spray (Direct/Layby)	12R-38	MFWD 170	19,400	200	8	0.044	0.85	0.59	0.40	0.22	2.07	0.47	1.35	3.90
Spray (Direct/Layby)	16R-20/30	MFWD 225	22,500	200	8	0.062	1.20	1.11	0.66	0.45	3.43	0.76	2.78	6.98
Spray (Levee Leaper)	50'	MFWD 225	12,800	200	8	0.033	0.65	0.59	0.20	0.24	1.69	0.23	1.50	3.43
Spray (Pull Type)	60'	MFWD 225	40,700	200	8	0.028	0.54	0.49	0.53	0.20	1.78	0.62	1.25	3.66
Spray (Pull Type)	80'	MFWD 225 MFWD 225	52,000	200	8	0.021	0.40	0.37	0.51	0.15	1.45	0.59	0.93	2.98
Spray (Pull Type)	90' 120'	MFWD 225 MFWD 225	52,900 80,900	200 200	8	0.018	0.36	0.33	0.46	0.13	1.29	0.54	0.83	2.67
Spray (Pull Type) Spray (Ropewick)	20'	MFWD 190	4,100	200	8	0.014	1.62	1.26	0.53	0.10	3.56	0.62	3.12	6.88
Spray (Spot)	27 '	MFWD 170	7,400	200	8	0.064	1.20	0.83	0.10	0.31	2.57	0.25	1.91	4.73
Spray (Spot)	40'	MFWD 170	9,300	200	8	0.042	0.81	0.56	0.18	0.21	1.77	0.21	1.28	3.27
Spray (Spot)	50 '	MFWD 170	10,100	200	8	0.033	0.65	0.45	0.16	0.16	1.43	0.18	1.03	2.65
Spray (Spot)	60'	MFWD 225	13,200	200	8	0.028	0.54	0.49	0.17	0.20	1.42	0.20	1.25	2.87
Stalk Shredder	14'	MFWD 150	14,900	200	10	0.117	1.73	1.39	1.53	0.52	5.18	0.89	3.06	9.14
Stalk Shredder Flex	20'	MFWD 150	33,100	200	10	0.082	1.21	0.97	2.38	0.36		1.39	2.14	8.47
Stalk Shredder-Flail	12'	MFWD 150	21,700	200	10	0.137	2.01	1.62	2.61	0.61	6.86	1.52	3.57	11.96
Stalk Shredder-Flail	15'	MFWD 150	24,500	200	10	0.110	1.61	1.29	2.35	0.49	5.76	1.37	2.85	9.99
Stalk Shredder-Flail Stalk Shredder-Flail	18' 20'	MFWD 150 MFWD 150	28,900 30,400	200 200	10 10	0.091	1.34	1.08	2.31	0.40	5.15 4.74	1.35	2.38	8.88 8.17
Stalk Shredder-Flail	25 '	MFWD 150 MFWD 150	46,400	200	10	0.082	0.96	0.97	2.19	0.36	4.74	1.56	1.71	7.99
Strip Till	8R-38	MFWD 225	28,100	150	10	0.060	0.90	1.09	0.75	0.29	3.19	1.17	2.73	7.10
Strip Till	12R-30	MFWD 225	68,900	150	10	0.061	0.90	1.09	1.83	0.44	4.28	2.88	2.73	9.90
Strip Till	12R-40	MFWD 225	67,200	150	10	0.046	0.67	0.81	1.34	0.33	3.17	2.11	2.05	7.34
Subsoiler	3 shank	MFWD 190	6,360	100	15	0.204	2.99	3.05	0.43	1.23		1.02	7.55	16.30
Subsoiler	4 shank	MFWD 225	11,210	100	15	0.153	2.25	2.72	0.57	1.11	6.67	1.35	6.81	14.84
Subsoiler	5 shank	MFWD 225	14,300	100	15	0.122	1.79	2.16	0.58	0.89	5.43	1.37	5.43	12.24
Subsoiler low-till	6 shank	MFWD 225	19,400	100	15	0.102	1.49	1.81	0.66	0.74		1.55	4.53	10.80
Subsoiler low-till	8 shank	MFWD 225	21,400	100	15	0.076	1.12	1.35	0.54	0.55	3.58	1.28	3.39	8.26

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2021

NAME UN	NIT	PRICE	ITEM NAME	UNIT	PRI
		dollars			dolla
ADJUVANTS			Apron Maxx RTA	ΟZ	1.69
Agri-Dex	pt	2.42	Artisan	ΟZ	0.23
AMS SuperMax	pt	3.81	Avaris	ΟZ	0.35
Class Act NG	pt	1.75	Avicta Complete Bean	ΟZ	3.91
Crop Oil Conc.(Pet	-	2.86	Bravo Weather Stick	pt	5.30
Crop Oil Conc. (Veg	-	2.90	Captan 50 WP	lb	5.94
Dyne-A-Pak	pt pt	5.16	Convoy	OZ	0.9
Fire-Zone	pt	3.40	Cotton Seed Trt.	acre	20.00
	-				
Herbimax	pt	3.99	CruiserMaxx Vibrance		4.7
Induce	pt	3.48	Elatus	ΟZ	2.9
MSO	pt	2.40	Flint Extra	ΟZ	8.88
Penetrator Plus	pt	2.90	Headline EC	ΟZ	1.83
Surfactant	pt	3.30	Miravis Top	ΟZ	1.4
CLEANING			Prior Xemium	ΟZ	4.53
Cleaning Peanuts	ton	18.00	Propimax EC	pt	11.10
CROP CONSULTANT			Prosaro	ΟZ	2.42
Corn Consultant	acre	6.00	Provost Optimum	OZ	2.43
Cotton Consultant	acre	8.00	Quadris	OZ	1.50
Peanut Consultant		9.25			2.37
	acre		Quadris Top	ΟZ	
Rice Consultant	acre	8.00	Quadris Top SBX	ΟZ	1.99
Sorghum Consultant		6.00	Quilt	pt	16.63
Soybeans Consultan	t acre	6.50	Quilt XCEL	pt	19.82
Wheat Consultant	acre	5.50	Stratego	pt	21.9
CUSTOM FERTILIZE			Stratego YLD	ΟZ	3.4
App Fert by Air	cwt	7.50	Tilt 3.6 EC	ΟZ	0.7
App Fert by Air(Mi		7.50	Tilt/ Bravo SE	ΟZ	0.7
Custom Apply Fert	acre	7.50	Trivapro	OZ	1.5
	acre	7.30	<u> </u>	02	1.5.
CUSTOM LIME		45 45	GINNING		0 1
Lime (Spread)	ton	47.45	Gin & Haul	lb	0.11
CUSTOM PLANT			GROWTH REGULATORS		
Custom Plant	acre	7.50	Mepex	ΟZ	0.0
Custom Plant Air	cwt	7.50	Mepichlor 4.2%	ΟZ	0.0
CUSTOM SPRAY			Mepiquat	ΟZ	0.0
App by Air (3 gal) appl	5.50	Mepstar 6	ΟZ	0.08
App by Air (5 gal		7.00	Palisade	OZ	1.13
App by Air (10 gal		9.00	Pentia	OZ	0.45
Custom Spray Groun	d acre	7.00	Pix WSB	ΟZ	1.3
DRYING			Stance	ΟZ	1.24
Dry Corn	bu	0.19	Veto	ΟZ	0.0
Dry Grain Sorghum	cwt	0.25	HARVEST AIDS		
Dry Peanuts	ton	24.00	Adios	ΟZ	0.99
Dry Rice	bu	0.40	Boll Buster	ΟZ	0.2
ERADICATION FEE			Def/Folex	pt	10.2
Eradication	acre	1.00	Defol 5	gal	6.7
	acre	1.00		_	9.63
FERTILIZERS		11 20	Display	ΟZ	
Agrotain Ultra	pt	11.30	Ethephon 6E	pt	4.00
Amm Sulfate (21% N		18.66	Finish 6	pt	8.00
Boron Plus	pt	2.56	Folex 6EC	pt	10.2
DAP	cwt	20.99	Freefall SC	OZ	1.59
Fert 10-34-0	cwt	24.08	Ginstar EC	pt	26.68
Fert 10-34-0	gal	2.80	Gramoxone SL	OZ	0.19
Fert 11-37-0	cwt	28.53	Sharpen	oz	6.04
Fert 41-0-0-4	cwt	18.22	Sodium Chlorate 5L	gal	6.7
				_	0.2
Lime	ton	37.45	SuperBoll	ΟZ	
NBPT	pt	11.06	Thidiazuron 4lb	ΟZ	1.49
Phosphorus (46% P20		17.31	Tribufos 61b	pt	10.2
Potash (60% K20)	cwt	22.11	Vacate	ΟZ	1.39
Sulfur Plus	pt	2.62	HAULING		
UAN (32% N)	cwt	12.03	Haul Corn	bu	0.23
UAN (32%)	gal	1.34	Haul Peanuts	ton	14.50
UAN + Sulfur (28%)	_	14.49	Haul Rice	bu	0.3
				bu	
UAN + Sulfur (28%)	_	1.61	Haul Sorghum		0.2
Urea, Solid (46% N		19.74	Haul Soybeans	bu	0.2
Zinc Plus	pt	2.99	Haul Wheat	bu	0.2
FUNGICIDES			HERBICIDES		
Abound	OZ	1.83	2,4-D Amine 4	pt	2.25
Alfa Guard	lb	1.31	2,4-D Ester	pt	2.68
Allegiance Flowabl		5.27	AAtrex 4L	pt	2.23
Ameristar Top	OZ OZ		Accent Q	_	
νιιεττρίαι 106	UΖ	2.51		OZ	19.09
_	1				
Approach Prima	pt	28.11	Acuron	ΟZ	0.53 continue)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2021 (continued)

TEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Aim	ΟZ	5.67	Harmony Extra SG	ΟZ	11.06
Anthem Flex	OZ	2.67	Helmet	ΟZ	0.26
inthem Maxx	OZ	4.94	Huskie	ΟZ	0.78
rmezon Pro	ΟZ	1.22	Impact	ΟZ	17.60
trazine 4L	pt	1.91	Intimidator	ΟZ	0.59
trazine 90DF	lb	3.59	Leadoff	ΟZ	5.61
uthority First	lb	73.87	League	ΟZ	3.83
uthority Elite	pt	16.43	Lexar	pt	7.55
uthority Maxx	lb	58.84	Liberty 280	ΟZ	0.44
uthority MTZ	lb	43.24	Loyant	ΟZ	2.21
vatar	pt	8.50	Makaze	ΟZ	0.14
venger	pt	4.52	Metolachlor	pt	5.59
xial XL	ΟZ	1.15	Metribuzin 4L	pt	9.04
xiom	OZ	1.94	Metribuzin 75	lb	18.30
anvel	pt	6.67	MSMA	pt	3.86
arrage	pt	4.15	Newpath	ΟZ	3.83
asagran	pt	5.43	Obey	ΟZ	0.98
oundary	pt	11.07	Osprey	ΟZ	3.50
rake	OZ	1.46	Outlook	pt	17.66
roadaxe	pt	16.31	Panther Pro	ΟZ	1.60
roadhead	lb	58.21	Parallel	pt	5.65
ucaneer Plus	pt	2.90	Paraquat	ΟZ	0.18
uctril	pt	4.28	Parazone 3SL	OZ	0.18
utyrac 200 (2,4-DB)	pt	3.64	Permit	ΟZ	21.99
adre	OZ	2.90	Permit Plus	ΟZ	21.18
anopy	ΟZ	2.32	PowerFlex	ΟZ	6.99
aparol	pt	4.67	Preface	ΟZ	4.05
apreno	OZ	4.93	Prefix	pt	6.64
inch	pt	14.18	Provisia	OZ	0.85
inch ATZ	pt	5.20	Prowl 3.3 EC	pt	6.49
larity	pt	10.73	Quelex	OZ	7.85
lassic	OZ	16.86	RealmO	ΟZ	5.08
learpath	lb	60.12	RebelEx	ΟZ	2.13
lethodim 2E	OZ	0.50	Reflex	pt	6.20
lincher SF	OZ	2.26	Regiment	OZ	43.56
obra	OZ	1.70	Resicore	OZ	0.48
ommand 3ME	pt	18.17	Resource	OZ	1.82
orvus	OZ	6.48	RiceBeaux	pt	5.95
otoran	pt	6.01	Riceshot	pt	4.69
otton Pro	pt	3.45	Ricestar HT	pt	24.49
icamba	=	5.50	Ringside	=	4.88
irex	pt n+	3.02	Roundup Power Max	pt oz	0.20
	pt ~+	3.03	-		3.25
iuron	pt ~+		Roundup PowerMax	pt 07	0.19
ual II Magnum	pt 	13.98	Roundup PowerMax ii		
ual Magnum	pt 	13.33 5.63	Roundup Pro	pt	0.20
uet	pt		Scepter 70 DG	ΟZ	4.82
ngenia	OZ	0.89	Select Max	pt h lh	12.74
nvive	OZ	4.76	Sencor/Tricor.Metri		19.00
nvoke	OZ	0.80	Sequence	pt	5.45
acet L	pt	14.57	Sharpen	ΟZ	6.04
ierce	OZ	7.40	Sinister	pt	14.96
ierce XLT	OZ	6.64	Sonic	ΟZ	5.48
inesse	OZ	15.79	Stalwart	pt	3.95
irestorm	pt	3.44	Stam 80 EDF	lb.	9.45
irst Rate	OZ	42.57	Stam M4	qt	7.72
lexstar	pt	8.33	Staple LX	ΟZ	0.74
lexstar GT	pt	4.66	Storm	pt	11.91
usilade DX	OZ	1.15	Strada	ΟZ	7.34
ambit	ΟZ	16.32	Strada Pro	ΟZ	7.70
lyphosate 31bs a.e	pt	2.11	Strada XT2	pt	3.20
lyphosate 31bs a.e	OZ	0.13	Superwham	qt	8.61
oal 2XL	pt	7.52	Suprend	lb	13.52
ramoxone SL 2.0	OZ	0.19	SureStart II	ΟZ	0.56
randstand R	pt	15.39	Surveil	ΟZ	6.32
rasp	ΟZ	12.07	Synchrony XP	OZ	11.99
rasp Xtra	OZ	1.58	Tempest	pt	29.82
alex GT	pt	7.13	Touchdown Total	qt	10.21
alomax	OZ	19.93	Treflan	pt	3.49

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2021 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	JNIT	PRICE
		dollars			dollars
Trifluralin	pt	3.68	Malathion 8E	pt	10.56
Triflurex	pt	3.30	Mustang Max	ΟZ	1.10
Ultra Blazer	pt	8.58	Nuprid 4F	OZ	0.88
Valor EZ	ΟZ	5.04	Oberon	ΟZ	3.09
Valor SX	OZ	4.51	Orthene 90	lb	7.45
Valor XLT	ΟZ	5.28	Permethrin	ΟZ	0.48
Vamos	pt	6.49	Portal XLO	ΟZ	0.74
Verdict	OZ	1.73	Pounce 25WP	lb	16.50
Veritas	pt	7.49	Prevathon	ΟZ	1.05
Villain	pt	5.24	Python WDG	ΟZ	14.32
Volunteer	pt	10.63	Radiant	ΟZ	5.74
Warrant	pt	4.39	Sevin 4F	pt	6.97
XtendiMax	OZ	0.56	Sevin XLR Plus	qt	15.43
Zidua DF	oz	8.72	Sivanto Prime	OZ	2.67
Zidua SC	OZ	5.55	Tempest	OZ	1.86
NOCULANT	02	3.33	Transform WG	OZ	7.35
Inoculant-Soybean	acre	1.55	Up-Cyde	OZ	0.44
Optimize LIFT		0.53	Warrior ZT		2.43
=	ΟZ	0.33	Warrior 21 Zeal	OZ	
NSECTICIDES		1 00		ΟZ	17.67
Abamectin .15EC	OZ	1.89	IRRIGATION SUPPLIES	C.I	0 04
Acephate 90%	lb	6.94	Roll-Out Pipe	ft	0.24
Acephate 90SP	lb	6.42	SEED/PLANTS	_	
Admire Pro	ΟZ	1.80	Corn Seed BtRR	thous	3.99
Agri-Mek	ΟZ	2.72	Corn Seed Conv.	thous	2.76
Asana .66 XL	OZ	0.55	Corn Seed Op Leptra	thous	3.66
Avenger	ΟZ	0.28	Corn Seed RR2	thous	3.03
Baythroid XL	ΟZ	2.38	Corn Seed VT2P	thous	3.98
Belt	ΟZ	7.50	Cot. Seed B3XF/W3FE	thous	2.58
Besiege	ΟZ	2.31	Cotton Seed B3XF	thous	2.66
Bidrin 8EC	OZ	1.16	Cotton Seed GLB2	thous	2.05
Bifenthrin	ΟZ	0.94	Cotton Seed W3FE	thous	2.49
Bifenture 2EC	OZ	0.91	Cotton Seed W3RF	thous	1.98
Brigade EC	pt	16.30	Peanut Seed	lb	0.87
Capture LFR	OZ	2.32	Rice Conv Hyb Trt	lb	6.19
Centric 40WG	OZ	5.08	Rice Fullpage Hyb Tr	lb	6.97
Cypermethrin	OZ	0.44	Rice Seed CF(Levees)	lb	0.96
Declare	OZ	1.89	Rice Seed Clearfield	lb	0.96
Diamond .83EC	OZ	1.28	Rice Seed Conv.	lb	0.32
Dimethoate 4E	pt	5.44	Rice Seed Cv(Levees)	lb	0.32
Dimilin 2L	OZ	2.16	Rice Seed CvH(Levee)		1.93
Endigo	OZ	1.48	Rice Seed FPH(Levee)		2.67
Force 3G	lb	7.28	Rice Seed Provisia	lb	1.23
Hero	OZ	1.30	Rice Seed Trt/Insect		0.29
Imidacloprid 4F	OZ	1.31	Sorghum Concept	lb	2.64
Imidaciopila 41 Imidan 70 WSB	OZ	0.89	Sorghum Concept+ Po	lb	3.82
IncidentalPestTrt \$8		8.00	Soybean Enlist E3	lb	1.20
IncidentalPestTrt\$15		15.00	Soybean Seed LL	lb	1.16
IncidentalPestTrt\$22		22.00	Soybean Seed RR2	lb	1.16
IncidentalPestTrt\$30		30.00	Soybean Seed RR2X	lb	1.34
Intrepid 2F	OZ	1.94	Wheat Seed Private	lb	0.28
Intruder 70WSP	OZ	1.13	SOIL TEST		100-
Karate Z	ΟZ	2.52	Soil Test	acre	10.00
Lambda	ΟZ	0.95	SURVEY & MARK LEVEES		
Lannate LV	pt	9.00	Survey & Mark Levees		4.50
Macho	OZ	0.78	Survey & Mark Levees	acro	4.50

Appendix Table 5. Estimated fuel prices and interest rates, Mississippi, 2021

ITEM NAME	UNIT	PRICE
		dollars
FUEL TYPES		
Diesel Fuel	gal	1.53
Gasoline	gal	1.89
INTEREST RATES		
Short-term	90	4.00
Intermediate-term	9	4.50

Appendix Table 6. Labor types, wage rates and unallocated labor Multipliers for crop enterprises, Mississippi, 2021

Item name	Unit	Wage Rate	
OPERATOR LABOR	hour	14.68	
IRRIGATE LABOR	hour	9.06	
HAND LABOR	hour	9.06	
HAND. & STOR. LABOR	hour	9.06	
RICE MGT. LABOR	hour	9.06	
CROP ENTERPRISE	UNALLC	CATED LABOR MULTIPLIER	RS (%)
Corn		90	
Cotton		80	
Grain Sorghum		90	
Peanuts		80	
Rice		90	
Soybeans		90	
Wheat		80	

Appendix Table 7. Futures contract prices, basis levels, forward contract prices, and loan rates used in row crop budgets, Mississippi, 2021

Crop	uni	Futures Contrac Month	Futures Contract Price ^a	Basis ^b	Forward Contract Price ^C	Loan Rate ^d	Budget Price ^e
Corn	bu	Dec ' 21	3.93	-0.20	3.73	2.35	3.73
Cotton Lint	lb	Dec '21	0.66	-0.0158	0.6442	0.52	0.6442
Cottonseed	lb						0.08f
Grain Sorghum	bu				3.55	4.08	3.55
Peanuts	ton				400.00	354.55	400.00
Soybeans	bu	Nov '21	9.69	-0.02	9.67	6.41	9.67
Rice	bu	Nov '21	5.47	-0.37	5.10	3.21	5.10
Wheat	bu	Jul '21	5.90	-0.15	5.75	3.35	5.75

- Average of the daily closing futures contract prices during the first 5 trading days in October 2020 for the stated contract months.
- Basis is the cash price minus the futures contract price for the stated contract month. The reported basis is a daily average from 2009 to 2019 for corn, soybeans and wheat at Greenville, MS. Rice basis is a weekly average price for river point delivery. June harvest delivery for wheat. September harvest delivery for corn, rice and soybeans. October harvest delivery for cotton.
- The forward contract price for corn, cotton, rice, soybeans and wheat is the futures contract price plus the basis. The forward contract price for grain sorghum is 95% of the forward contract price for corn. The forward contract price for peanuts is an estimate from a poll of Extension Peanut Marketing Specialists.
- d Average Mississippi County CCC Loan Rate for 2020 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2020 Farm-stored Loan Rate for long grain rough rice. National 2020 Upland Cotton Marketing Assistance Loan Base Rate for cotton lint.
- Price used in MSU Extension Service Planning Budgets.
- $^{
 m f}$ Cottonseed price is the average marketing year price over the years 2008-2020.

Appendix Table 8. Estimated costs for field operations, per acre
Cotton irrigated with roll-out pipe
160-acre roll-out pipe system, 10.5 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Land Plane	50'x16'		0.57	0.30	0.56			1.43	1.59	3.02
Set Up Engine										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Ditcher (1m/160a)			0.13	0.07	0.14		0.01	0.35	0.32	0.67
Roll-Out Pipe	ft	7.92					0.13	8.05		8.05
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m rol	1	0.17	0.10	0.41		0.01	0.69	0.79	1.48
IRRIGATE LABOR	hour				1.81		0.03	1.84		1.84
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Pick Up Pipe										
Pipe Spool 160ac	1/4m rol	1	0.25	0.15	0.62		0.01	1.03	1.18	2.21
Land Forming (\$450)	each								30.35	30.35
Well & Pump, Furrow	each			2.96			0.05	3.01	8.30	11.31
Main Line Pipe	each								4.59	4.59
Engine, RPF, 75	each								8.60	8.60
June Irrigation	ac-in		4.36	1.40			0.10	5.86		5.86
July Irrigation	ac-in		4.36	1.40			0.08	5.84		5.84
August Irrigation	ac-in		4.36	1.40			0.06	5.82		5.82
TOTALS		7.92	14.20	7.78	4.46	0.00	0.48	34.84	55.72	90.56

Appendix Table 9. Estimated costs for field operations, per acre
Cotton irrigated with center pivot
135-acre 1/4-mile pivot system, 7.5 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					(dollars-				
Set Up Engine										
IRRIGATE LABOR	hour				0.27		0.01	0.28		0.28
Maintenance										
IRRIGATE LABOR	hour				1.07		0.02	1.09		1.09
Apply Water										
IRRIGATE LABOR	hour				0.15			0.15		0.15
Apply Water										
IRRIGATE LABOR	hour				0.20			0.20		0.20
Apply Water										
IRRIGATE LABOR	hour				0.15			0.15		0.15
Pivot, 1/4 CP	each			13.48			0.22	13.70	51.82	65.52
Well & Pump, 1/4 CP	each			3.50			0.06	3.56	9.84	13.40
Engine, 1/4 CP, 65	each								10.19	10.19
June Irr. 3app@.75"	ac-in		5.14	1.49			0.11	6.74		6.74
July Irr. 4app@.75"	ac-in		6.86	1.99			0.12	8.97		8.97
Aug Irr. 3app@.75"	ac-in		5.14	1.49			0.07	6.70		6.70
TOTALS		0.00	17.14	21.95	1.84	0.00	0.61	41.54	71.85	113.39

Appendix Table 10. Estimated costs for field operations, per acre Full-season soybeans irrigated with roll-out pipe 160-acre system, 9 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/			I	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	TUPNI PC	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Land Plane	50'x16'		0.57	0.30	0.56		0.06	1.49	1.59	3.08
Set Up Engine										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Ditcher (1m/160a)			0.13	0.07	0.14			0.34	0.32	0.66
Roll-Out Pipe	ft	7.92					0.11	8.03		8.03
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m rol	1	0.17	0.10	0.41		0.01	0.69	0.79	1.48
IRRIGATE LABOR	hour				1.81		0.02	1.83		1.83
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Pick Up Pipe										
II	1/4m rol	1	0.25	0.15	0.62			1.02	1.18	2.20
Land Forming (\$450)	each								30.35	30.35
Well & Pump, Furrow	each			2.96			0.04	3.00	8.30	11.30
Main Line Pipe	each								4.59	4.59
Engine, RPF, ESB	each								8.60	8.60
1st June Irrigation			3.74	1.40			0.07	5.21		5.21
2nd June Irrigation	ac-in		3.74	1.40			0.07	5.21		5.21
July Irrigation	ac-in		3.74	1.40			0.05	5.19		5.19
TOTALS		7.92	12.34	7.78	4.46	0.00	0.43	32.93	55.72	88.65

Appendix Table 11. Estimated costs for field operations, per acre Irrigation with a contour flood system 80-acre system, 13.5 ac-in., Delta Area, Mississippi, 2021

Set Up Engine	OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
Set Up Engine IRRIGATE LABOR hour 0.45 0.01 0.46 0.8 Build Outside Levee Levee Pull (1m/80a) 8 blade 0.22 0.11 0.24 0.01 0.58 0.63 0.8 Survey & Mark Levees acre 2.25 0.04 2.29 0.04 2.29 2.8 Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 0.8 But Levee Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 0.8 IRRIGATE LABOR hour 0.11 0.29 0.01 0.68 0.62 0.8 Build Inside Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.8 But Levees Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.69 0.65 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.8 But Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.69 0.60 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.27 0.11 0.29 0.01 0.68 0.62 0.83 0.80 IRRIGATE LABOR hour 0.68 0.01 0.69 0.60 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.27 0.11 0.29 0.01 0.68 0.62 0.83 0.80 IRRIGATE LABOR hour 0.11 0.29 0.01 0.68 0.65 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.27 0.11 0.29 0.01 0.68 0.62 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.27 0.11 0.29 0.01 0.68 0.62 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.27 0.11 0.29 0.01 0.58 0.65 0.83 0.80 But Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.83 0.80 IRRIGATE LABOR hour 0.11 0.29 0.01 0.68 0.62 0.83 0.80 IRRIGATE LABOR hour 0.11 0.29 0.01 0.68 0.65 0.65 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83	OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
Set Up Engine IRRIGATE LABOR hour Build Outside Levee Levee Pull (Im/80a) 8 blade Build Mark Levees Levee Pull (Im/80a) 8 blade 0.29 0.15 0.31 0.01 0.46 0.83 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3							dollars-				
IRRIGATE LABOR Nour 0.45 0.01 0.46 0.88 0.61 0.46 0.88 0.62 0.62 0.62 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.63 0.64 0.65 0.64 0.65 0.64 0.65											
Build Outside Levee Levee Pull (lm/80a) 8 blade 0.22 0.11 0.24 0.01 0.58 0.63 1		,				0.45		0 01	0 46		0.46
Levee Pull (Im/80a) 8 blade		hour				0.45		0.01	0.46		0.46
Survey & Mark Levees acre 2.25		0 blada		0 22	O 11	0.24		0 01	0 50	0 63	1.21
Build Inside Levees Levee Pull (Im/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 1 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.11 0.11 0.11 0.76 0.83 1 Build Inside Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 1 Build Inside Levees Levee Pull (Im/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 1 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0.68 0.62 1 IRRIGATE LABOR hour 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0.69 0.60 0.60 0.60 0.60 0.60 0.60				0.22	0.11	0.24				0.63	2.29
Levee Pull (1m/80a)		acre	2.23					0.04	2.29		2.29
Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0.6 Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 1 Butl Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0.68 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0.62 1 IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1		0 blade		0.20	0 15	0.31		0 01	0.76	0 03	1.59
Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 17 18 18 18 18 18 18 18	, , ,	o brade		0.29	0.13	0.31		0.01	0.76	0.03	1.33
IRRIGATE LABOR hour 0.68 0.01 0.69 0.68 Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.5 Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 0.5 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 0.00 IRRIGATE LABOR hour 0.68 0.01 0.69 0.62 0.00 Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 0.5 Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 0.55 0.5 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.24 0.01 0.58 0.65 0.5 Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 0.55 0.5 Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 0.00 IRRIGATE LABOR hour 0.68 0.01 0.69 0.62 0.00 IRRIGATE LABOR hour 0.68 0.01 0.69 0.62 0.00 IRRIGATE LABOR hour 0.68 0.01 0.69 0.62 0.00 IRRIGATE LABOR hour 0.11 0.29 0.01 0.68 0.62 0.00 IRRIGATE LABOR hour 0.11 0.29 0.01 0.68 0.62 0.00 IRRIGATE LABOR hour 0.11 0.29 0.01 0.69 0.60 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 0.00 IRRIGATE LABOR hour 0.11 0.24 0.01 0.69 0.60 IRRIGATE		61-71		0.27	0 11	0.29		0 01	0.68	0 62	1.30
Apply Water IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 1 Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 1 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0.83 1 Apply Water IRRIGATE LABOR hour 0.11 0.29 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1				0.27	0.11					0.02	0.69
TRRIGATE LABOR hour 0.11 0.11 0.11 0.11 0.11 0.24 Down Levees Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 1.25 0.25 0.25 0.31 0.01 0.76 0.83 1.25 0.25 0.31 0.01 0.76 0.83 1.25 0.25 0.31 0.01 0.76 0.83 1.25 0.25 0.31 0.01 0.76 0.83 1.25 0.25 0.31 0.25 0.31 0.01 0.76 0.83 1.25 0.25 0.31 0.29 0.01 0.68 0.62 1.25 0.31 0.29 0.01 0.68 0.62 1.25 0.31 0.29 0.01 0.68 0.62 1.25 0.31 0.29 0.01 0.69 0.25 0.31 0.25 0.31 0.31 0.31 0.31 0.31 0.31 0.31 0.31		nour				0.00		0.01	0.03		0.05
Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 12 Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 13 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 13 IRRIGATE LABOR hour 0.68 0.01 0.69 0.70 Apply Water IRRIGATE LABOR hour 0.11 0.24 0.01 0.58 0.65 13 Build Inside Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 13 Buitd Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.65 13 Buitd Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 13 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 13 IRRIGATE LABOR hour 0.68 0.01 0.69 0.83 13 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 13 IRRIGATE LABOR hour 0.68 0.01 0.69 0.83 13 Butt Levees Blade-Box 10 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.11 0.24 0.01 0.58 0.65 13 Butt Levee Splitter (1/80 32" 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25		hour				0 11			0 11		0.11
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Apply Water IRRIGATE LABOR hour Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 12 0.11 0.24 0.01 0.58 0.65 12 0.11 0.24 0.01 0.58 0.65 12 0.11 0.24 0.01 0.58 0.65 12 0.11 0.24 0.01 0.58 0.65 12 0.11 0.24 0.01 0.58 0.65 12 0.11 0.24 0.01 0.58 0.65 12 0.11 0.24 0.01 0.58 0.65 12 0.11 0.29 0.01 0.68 0.62 12 0.11 0.29 0.01 0.68 0.62 12 0.11 0.29 0.01 0.68 0.62 12 0.11 0.29 0.01 0.69 0.69 0.69 0.68 0.01 0.69 0.69 0.69 0.68 0.01 0.69 0.69 0.69 0.68 0.01 0.69 0.69 0.69 0.68 0.01 0.69 0.69 0.69 0.69 0.69 0.11 0.24 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1											0.69
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Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 12 Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 13 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 13 IRRIGATE LABOR hour 0.68 0.01 0.69 0.69 0.69 Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1		hour				0.11			0.11		0.11
Build Inside Levees Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 1 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0 Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1	Tear Down Levees										
Levee Pull (1m/80a) 8 blade 0.29 0.15 0.31 0.01 0.76 0.83 12 Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Levee Splitter (1/80	32"		0.22	0.11	0.24		0.01	0.58	0.65	1.23
Butt Levees Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 1 IRRIGATE LABOR hour 0.68 0.01 0.69 0 Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1	Build Inside Levees										
Blade-Box 6'-7' 0.27 0.11 0.29 0.01 0.68 0.62 10 IRRIGATE LABOR hour 0.68 0.01 0.69 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.0	Levee Pull (1m/80a)	8 blade		0.29	0.15	0.31		0.01	0.76	0.83	1.59
IRRIGATE LABOR hour 0.68 0.01 0.69 0 Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.1	Butt Levees										
Apply Water IRRIGATE LABOR hour 0.11 0.11 0.11 Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 10 0.11 Tear Down Levees Levee Splitter (1/80 32" 0.17 0.08 0.18 0.43 0.49	Blade-Box	6'-7'		0.27	0.11	0.29		0.01	0.68	0.62	1.30
IRRIGATE LABOR hour 0.11 0.11 0.11 Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 10 10 10 10 10 10 10 10 10 10 10 10 10	IRRIGATE LABOR	hour				0.68		0.01	0.69		0.69
Tear Down Levees Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 17 Tear Down Levees Levee Splitter (1/80 32" 0.17 0.08 0.18 0.43 0.49 0 Land Forming (\$113) each Well & Pump, Flood each 5.91 0.10 6.01 16.61 22 Engine, CF, 75 each June Irrigation ac-in 5.61 2.80 0.14 8.55 July Irrigation ac-in 5.61 2.80 0.11 8.52	Apply Water										
Levee Splitter (1/80 32" 0.22 0.11 0.24 0.01 0.58 0.65 17 Tear Down Levees Levee Splitter (1/80 32" 0.17 0.08 0.18 0.43 0.49 0.43 0.49 0.45 17 0.62 1	IRRIGATE LABOR	hour				0.11			0.11		0.11
Tear Down Levees Levee Splitter (1/80 32" 0.17 0.08 0.18 0.43 0.49 0 Land Forming (\$113) each Well & Pump, Flood each 5.91 0.10 6.01 16.61 22 Engine, CF, 75 each June Irrigation ac-in 5.61 2.80 0.14 8.55 July Irrigation ac-in 5.61 2.80 0.11 8.52	Tear Down Levees										
Levee Splitter (1/80 32" 0.17 0.08 0.18 0.43 0.49 0 Land Forming (\$113) each 7.62 7 Well & Pump, Flood each 5.91 0.10 6.01 16.61 22 Engine, CF, 75 each June Irrigation ac-in 5.61 2.80 0.14 8.55 July Irrigation ac-in 5.61 2.80 0.11 8.52	Levee Splitter (1/80	32"		0.22	0.11	0.24		0.01	0.58	0.65	1.23
Land Forming (\$113) each Well & Pump, Flood each Engine, CF, 75 each June Irrigation ac-in 5.61 2.80 0.14 8.55 July Irrigation ac-in 5.61 2.80 0.11 8.52	Tear Down Levees										
Well & Pump, Flood each 5.91 0.10 6.01 16.61 22 Engine, CF, 75 each 17.20 17 June Irrigation ac-in 5.61 2.80 0.14 8.55 8 July Irrigation ac-in 5.61 2.80 0.11 8.52 8	Levee Splitter (1/80	32"		0.17	0.08	0.18			0.43	0.49	0.92
Engine, CF, 75 each June Irrigation ac-in 5.61 2.80 0.14 8.55 July Irrigation ac-in 5.61 2.80 0.11 8.52		each									7.62
June Irrigation ac-in 5.61 2.80 0.14 8.55 8 July Irrigation ac-in 5.61 2.80 0.11 8.52 8	Well & Pump, Flood	each			5.91			0.10	6.01	16.61	22.62
July Irrigation ac-in 5.61 2.80 0.11 8.52										17.20	17.20
	3										8.55
August Irrigation ac-in 5.61 2.80 0.08 8.49											8.52
	August Irrigation	ac-in		5.61	2.80			0.08	8.49		8.49
TOTALS 2.25 19.56 15.61 5.76 0.00 0.61 43.79 48.85 92	TOTALS		2.25	19.56	15.61	5.76	0.00	0.61	43.79	48.85	92.64

Appendix Table 12. Estimated costs for field operations, per acre Irrigation with a 1/2-mile center pivot system 530-acre system, 7.5 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Set Up Engine										
IRRIGATE LABOR	hour				0.07			0.07		0.07
Maintenance										
IRRIGATE LABOR	hour				0.27		0.01	0.28		0.28
Apply Water										
IRRIGATE LABOR	hour				0.04			0.04		0.04
Apply Water										
IRRIGATE LABOR	hour				0.05			0.05		0.05
Apply Water										
IRRIGATE LABOR	hour				0.04			0.04		0.04
Pivot, 1/2 CP	each			8.60			0.14	8.74	33.07	41.81
Well & Pump, 1/2 CP	each			1.13			0.02	1.15	3.18	4.33
Engine, 1/2 CP, 174	each								4.64	4.64
June Irr. 3app@.75"	ac-in		7.53	0.68			0.14	8.35		8.35
July Irr. 4app@.75"	ac-in		10.04	0.91			0.15	11.10		11.10
Aug Irr. 3app@.75"	ac-in		7.53	0.68			0.08	8.29		8.29
TOTALS		0.00	25.10	12.00	0.47	0.00	0.54	38.11	40.89	79.00

Appendix Table 13. Estimated costs for field operations, per acre

Corn irrigated with roll-out pipe

160-acre system, 13 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Land Plane	50'x16'		0.57	0.30	0.56		0.06	1.49	1.59	3.08
Set Up Engine										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Ditcher (1m/160a)			0.13	0.07	0.14			0.34	0.32	0.66
Roll-Out Pipe	ft	7.92					0.11	8.03		8.03
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m ro	11	0.17	0.10	0.41		0.01	0.69	0.79	1.48
IRRIGATE LABOR	hour				1.81		0.02	1.83		1.83
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Pick Up Pipe										
Pipe Spool 160ac	1/4m ro	11	0.25	0.15	0.62		0.01	1.03	1.18	2.21
Land Forming (\$450)	each								30.35	30.35
Well & Pump, Furrow	each			2.96			0.04	3.00	8.30	11.30
Main Line Pipe	each								4.59	4.59
Engine, RPF, Corn	each								8.60	8.60
1st June Irrigation	ac-in		4.05	1.05			0.07	5.17		5.17
2nd June Irrigation	ac-in		4.05	1.05			0.07	5.17		5.17
3rd June Irrigation			4.05	1.05			0.07	5.17		5.17
July Irrigation	ac-in		4.05	1.05			0.05	5.15		5.15
TOTALS		7.92	17.32	7.78	4.69	0.00	0.51	38.22	55.72	93.94

Appendix Table 14. Estimated costs for field operations, per acre Contour levee rice flood irrigation system 80-acre system, 33 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					(dollars-				
Set Up Engine										
IRRIGATE LABOR Build Outside Levee	hour				0.45		0.01	0.46		0.46
Levee Pull (1m/80a)	8 blade		0.22	0.11	0.24		0.01	0.58	0.63	1.21
Survey & Mark Levees	acre	4.50					0.09	4.59		4.59
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.57	0.28	0.63		0.03	1.51	1.67	3.18
Butt Levees										
Blade-Box	6'-7'		0.27	0.11	0.29		0.01	0.68	0.62	1.30
IRRIGATE LABOR	hour				0.68		0.01	0.69		0.69
Install Gates										
IRRIGATE LABOR	hour				2.72		0.05	2.77		2.77
Apply Water										
IRRIGATE LABOR	hour				6.80		0.14	6.94		6.94
Apply Water										
IRRIGATE LABOR	hour				6.80		0.11	6.91		6.91
Apply Water										
IRRIGATE LABOR	hour				6.80		0.09	6.89		6.89
Apply Water										
IRRIGATE LABOR	hour				6.80		0.07	6.87		6.87
Remove Gates										
IRRIGATE LABOR	hour				0.91		0.01	0.92		0.92
Tear Down Levees										
Levee Splitter (1/80	32"		0.45	0.23	0.49		0.01	1.18	1.30	2.48
Tear Down Levees										
Levee Splitter (1/80			0.17	0.08	0.18			0.43	0.49	0.92
Land Forming (\$113)	each								7.62	7.62
Levee Gates	each			F 01			0 10	6 01	0.65	0.65
± *	each			5.91			0.10	6.01	16.61	22.62
Engine, Rice CL, 75	each .		7 40	1 50			0 10	0 10	17.20	17.20
May Irrigation	ac-in		7.48	1.53 2.29			0.18	9.19		9.19 13.74
June Irrigation	ac-in		11.22	2.29			0.23	13.74		13.74
July Irrigation August Irrigation	ac-in ac-in		11.22 11.22	2.29			0.18	13.69 13.65		13.69
August Ifrigation	ac-111		11.22	2.29			∪.⊥4	13.05		13.65
TOTALS		4.50	42.82	15.12	33.79	0.00	1.47	97.70	46.79	144.49

Appendix Table 15. Estimated costs for field operations, per acre Straight levee rice flood irrigation system 80-acre system, 27 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/					DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP I	INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
		dollars									
Set Up Engine											
IRRIGATE LABOR	hour					0.45		0.01	0.46		0.46
Survey & Mark Levees	acre		2.25					0.05	2.30		2.30
Build Inside Levees											
Levee Pull (1m/80a)	8 blade			0.43	0.21	0.47		0.02	1.13	1.25	2.38
Butt Levees											
Blade-Box	6'-7'			0.27	0.11	0.29		0.01	0.68	0.62	1.30
IRRIGATE LABOR	hour					0.68		0.01	0.69		0.69
Install Gates											
IRRIGATE LABOR	hour					1.36		0.03	1.39		1.39
Apply Water											
IRRIGATE LABOR	hour					4.53		0.09	4.62		4.62
Apply Water											
IRRIGATE LABOR	hour					4.53		0.08	4.61		4.61
Apply Water											
IRRIGATE LABOR	hour					4.53		0.06	4.59		4.59
Apply Water	_										
IRRIGATE LABOR	hour					4.53		0.05	4.58		4.58
Remove Gates	_										
IRRIGATE LABOR	hour					0.91		0.01	0.92		0.92
Tear Down Levees											
Levee Splitter (1/80				0.33	0.16	0.37		0.01	0.87	0.97	1.84
Land Forming (\$450)	each									30.35	30.35
Levee Gates	each				F 0.1			0 10	6 01	0.65	0.65
± '	each				5.91			0.10	6.01	16.61	22.62
Engine, Rice SL, 75	each									17.20	17.20
May Irrigation	ac-in			7.48	1.86			0.19	9.53		9.53
June Irrigation	ac-in			8.72	2.18			0.18	11.08		11.08
July Irrigation	ac-in			8.72	2.18			0.15	11.05		11.05
August Irrigation	ac-in			8.72	2.18			0.11	11.01		11.01
TOTALS			2.25	34.67	14.79	22.65	0.00	1.16	75.52	67.65	143.17

Appendix Table 16. Estimated costs for field operations, per acre Straight levee rice multi Inlet flood irrigation system 80-acre system, 23 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/				DIRECT C	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Set Up Engine										
IRRIGATE LABOR	hour				0.45		0.01	0.46		0.46
Survey & Mark Levees	acre	2.25					0.05	2.30		2.30
Build Inside Levees	0 1 1 1		0 40	0 01	0 45		0.00	1 10	1 05	0 00
Levee Pull (1m/80a)	8 blade		0.43	0.21	0.47		0.02	1.13	1.25	2.38
Butt Levees	61.71		0 07	0 11	0 00		0 01	0 60	0 60	1 20
Blade-Box	6'-7'		0.27	0.11	0.29		0.01	0.68	0.62	1.30
IRRIGATE LABOR	hour		0 10	0 07	0.68		0.01	0.69	0 20	0.69
Ditcher (1m/160a)	CI	7 00	0.13	0.07	0.14		0.01	0.35	0.32	0.67
Roll-Out Pipe	ft	7.92					0.16	8.08		8.08
Lay Roll-out Pipe Pipe Spool 160ac	1/4m rol	1	0.17	0 10	0 41		0.01	0.69	0.79	1.48
	1/400 101	1	0.17	0.10	0.41		0.01	0.69	0.79	1.48
Install Gates IRRIGATE LABOR	1				1.36		0.03	1.39		1.39
	hour				1.30		0.03	1.39		1.39
Apply Water IRRIGATE LABOR	1				1.81		0.04	1.85		1 0 5
Apply Water	hour				1.01		0.04	1.00		1.85
IRRIGATE LABOR	hour				1.81		0.03	1.84		1.84
Apply Water	HOUL				1.01		0.03	1.04		1.04
IRRIGATE LABOR	hour				1.81		0.02	1.83		1.83
Apply Water	HOUL				1.01		0.02	1.05		1.00
IRRIGATE LABOR	hour				1.81		0.02	1.83		1.83
Remove Gates	nour				1.01		0.02	1.05		1.05
IRRIGATE LABOR	hour				0.45			0.45		0.45
Tear Down Levees	nour				0.45			0.45		0.45
Levee Splitter (1/80	32"		0.33	0.16	0.37		0.01	0.87	0.97	1.84
Pick Up Pipe	32		0.33	0.10	0.57		0.01	0.07	0.57	1.01
Pipe Spool 160ac	1/4m rol	1	0.08	0.05	0.20			0.33	0.39	0.72
Land Forming (\$450)	each	_	0.00	0.05	0.20			0.55	30.35	30.35
Levee Gates	each								0.32	0.32
	each			5.91			0.10	6.01	16.61	22.62
Engine, Mult In Rice	each			0.01			0.10	0.01	17.20	17.20
May Irrigation	ac-in		6.23	1.75			0.16	8.14	17.20	8.14
June Irrigation	ac-in		7.48	2.10			0.16	9.74		9.74
July Irrigation	ac-in		7.48	2.10			0.13	9.71		9.71
August Irrigation	ac-in		7.48	2.10			0.10	9.68		9.68
TOTALS		10.17	30.08	14.66	12.06	0.00	1.08	68.05	68.82	136.87

Appendix Table 17. Estimated costs for field operations, per acre Straight levee rice - zero grade flood irrigation 80-acre system, 19 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
					(dollars-				
Set Up Engine										
IRRIGATE LABOR	hour				0.45		0.01	0.46		0.46
Apply Water										
IRRIGATE LABOR	hour				2.27		0.05	2.32		2.32
Apply Water	,				0 07		0 04	0 01		0 01
IRRIGATE LABOR	hour				2.27		0.04	2.31		2.31
Apply Water TRRIGATE LABOR	hour				2.27		0.03	2.30		2.30
Apply Water	nour				2.21		0.03	2.30		2.30
IRRIGATE LABOR	hour				2.27		0.02	2.29		2.29
Land Forming (\$450)	each				2.27		0.02	2.23	30.35	30.35
Well & Pump, Flood	each			5.91			0.10	6.01	16.61	22.62
Engine, Rice SL, 75	each								17.20	17.20
May Irrigation	ac-in		4.99	1.24			0.12	6.35		6.35
June Irrigation	ac-in		6.23	1.55			0.13	7.91		7.91
July Irrigation	ac-in		6.23	1.55			0.10	7.88		7.88
August Irrigation	ac-in		6.23	1.55			0.08	7.86		7.86
TOTALS		0.00	23.68	11.80	9.53	0.00	0.68	45.69	64.16	109.85

Appendix Table 18. Estimated costs for field operations, per acre
Peanuts irrigated with roll-out pipe
160-acre system, 12 ac-in., Delta Area, Mississippi, 2021

OPERATION/	SIZE/ -]	DIRECT CO	OST			FIXED	TOTAL
OPERATING INPUT	UNIT C	OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	COST	COST
						dollars-				
Land Plane	50'x16'		0.57	0.30	0.56		0.06	1.49	1.59	3.08
Set Up Engine										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Ditcher (1m/160a)			0.13	0.07	0.14		0.01	0.35	0.32	0.67
Roll-Out Pipe	ft	7.92					0.13	8.05		8.05
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll	L	0.17	0.10	0.41		0.01	0.69	0.79	1.48
IRRIGATE LABOR	hour				1.81		0.03	1.84		1.84
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Pick Up Pipe										
* *	1/4m roll	L	0.25	0.15	0.62		0.01	1.03	1.18	2.21
Land Forming (\$450)	each								30.35	30.35
Well & Pump, Furrow	each			2.96			0.05	3.01	8.30	11.31
Main Line Pipe	each								4.59	4.59
Engine, RPF, PNUT	each								8.60	8.60
1st July Irrigation	ac-in		3.74	1.05			0.06	4.85		4.85
1st Aug Irrigation	ac-in		3.74	1.05			0.05	4.84		4.84
2nd Aug Irrigation	ac-in		3.74	1.05			0.05	4.84		4.84
1st Sep Irrigation	ac-in		3.74	1.05			0.03	4.82		4.82
TOTALS		7.92	16.08	7.78	4.69	0.00	0.49	36.96	55.72	92.68

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