

**RICE  
2021  
PLANNING BUDGETS**

**Mississippi State University  
Department of Agricultural Economics  
Budget Report 2020-04**

**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.

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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:

$$RPH = \frac{RLC \times RP}{THL}$$

$$RPA = RPH \times PR$$

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 prerequisites (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.

$$CRF = \frac{IIR}{1 - (1 + IIR)^{-TYL}}$$

where:

CRF = Capital recovery factor  
 IIR = Intermediate-term interest rate  
 TYL = Total years of life

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

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:

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

$$\text{CRCPA} = \text{CRCPH} \times \text{PR}$$

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 operations.

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, 9, 10, and 11.

### 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.



## Enterprise Budgets

Table 1.A Estimated costs per acre  
 Contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
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)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.32	75.0000	24.00	_____
Rice Seed Trt/Insect	lbseed	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	pt	2.40	1.5000	3.60	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc. (Pet.)	pt	2.86	0.4000	1.14	_____
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	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	hour	14.68	0.2030	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	hour	9.06	0.0785	0.71	_____
RICE MGT. LABOR					
Special Labor	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR	hour	14.68	0.5633	8.27	_____
DIESEL FUEL					
Tractors	gal	1.53	5.9886	9.16	_____
Harvesters	gal	1.53	3.3975	5.20	_____
Flood Irr.	gal	1.53	26.8827	41.14	_____
REPAIR & MAINTENANCE					
Implements	acre	8.97	1.0000	8.97	_____
Tractors	acre	3.69	1.0000	3.69	_____
Harvesters	acre	8.36	1.0000	8.36	_____
Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.	acre	10.63	1.0000	10.63	_____
TOTAL DIRECT EXPENSES				755.20	_____
FIXED EXPENSES					
Implements	acre	18.64	1.0000	18.64	_____
Tractors	acre	22.58	1.0000	22.58	_____
Harvesters	acre	31.99	1.0000	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 3<sup>rd</sup> year.**

Table 1.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 EXPENSES				60.80	_____
TOTAL FIXED EXPENSES				115.29	_____
				-----	
TOTAL SPECIFIED EXPENSES				870.49	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-54.49	_____

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 3<sup>rd</sup> year.**

Table 1.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	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
-----hours-----										
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	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 Conv.	lb					75.0000				
Rice Seed Trt/Insect	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 3lbs 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	lbseed					13.6000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
App by Air ( 5 gal)	appl			1.00	May	1.0000				
Regiment	oz					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	May					
RICE MGT. LABOR	hour								0.30	
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								0.50	
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	oz					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	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	0.12	0.12	3.64	
TOTALS							0.75	0.75	6.10	0.56

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 3<sup>rd</sup> year.**

Table 1.D Estimated costs for field operations, per acre  
 Contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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	14.46
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	4.57
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	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	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
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										
RICE MGT. LABOR	hour				2.72			0.05	2.77	2.77
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				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				1.81			0.01	1.82	1.82
Header - Draper (CL)	25' Rigid		5.20	11.22	5.66			0.15	22.23	58.53
Grain Cart Rice	700 bu		0.19	0.21	0.31				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	21.90
Flood Irr.	acre	4.50	42.82	15.12	33.79			1.47	97.70	144.49
<b>TOTALS</b>		<b>585.93</b>	<b>55.50</b>	<b>35.33</b>	<b>67.81</b>	<b>0.00</b>	<b>10.63</b>	<b>755.20</b>	<b>115.29</b>	<b>870.49</b>

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<sup>rd</sup> year.**

Table 1.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
-----dollars-----												
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

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

**Fertilization decisions should be based on soil tests.**

\* Lease costs are based on hourly usage costs



Table 1.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	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT			dollars										
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 2.A Estimated costs per acre  
 Straight levee rice  
 Flood irrigated, 27 ac-in, Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
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)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.32	75.0000	24.00	_____
Rice Seed Trt/Insect	lbseed	0.29	88.6000	25.69	_____
Rice Seed Cv (Levees)	lb	0.32	13.6000	4.35	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc. (Pet.)	pt	2.86	0.4000	1.14	_____
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	0.4999	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	14.31	_____
INTEREST ON OP. CAP.	acre	10.32	1.0000	10.32	_____
TOTAL DIRECT EXPENSES				722.83	_____
FIXED EXPENSES					
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	_____
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 3<sup>rd</sup> year.**

Table 2.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 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	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 EXPENSES				93.17	_____
TOTAL FIXED EXPENSES				131.30	_____
				-----	
TOTAL SPECIFIED EXPENSES				854.13	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-38.13	_____

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 3<sup>rd</sup> year.**

Table 2.C Estimated resource use for field operations, per acre  
 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
-----hours-----										
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 Conv.	lb					75.0000				
Rice Seed Trt/Insect	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 3lbs 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 Cv(Levees)	lb					13.6000				
Rice Seed Trt/Insect	lbseed					13.6000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
App by Air ( 5 gal)	appl			1.00	May	1.0000				
Regiment	oz					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	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	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	0.07	0.07	2.45	
<b>TOTALS</b>							<b>0.67</b>	<b>0.67</b>	<b>4.07</b>	<b>0.53</b>

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<sup>rd</sup> year.**

Table 2.D Estimated costs for field operations, per acre  
 Straight levee rice  
 Flood irrigated, 27 ac-in, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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 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											
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											
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	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	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		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	67.65	143.17
<b>TOTALS</b>		<b>583.68</b>	<b>46.66</b>	<b>33.50</b>	<b>48.67</b>	<b>0.00</b>	<b>10.32</b>	<b>722.83</b>	<b>131.30</b>	<b>854.13</b>	

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<sup>rd</sup> year.**

Table 2.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs

Table 2.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	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT			dollars										
YIELD	UNIT												
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 3.A Estimated costs per acre  
 Straight levee rice  
 Multi inlet 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)	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)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
IRRIGATION SUPPLIES					
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	lbseed	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	pt	2.40	1.5000	3.60	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc.(Pet.)	pt	2.86	0.5000	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	hour	14.68	0.1760	2.58	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	1.1250	10.18	_____
Implements	hour	9.06	0.0375	0.34	_____
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	5.8180	8.89	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	18.7364	28.67	_____
REPAIR & MAINTENANCE					
Implements	acre	8.58	1.0000	8.58	_____
Tractors	acre	3.59	1.0000	3.59	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	13.96	1.0000	13.96	_____
INTEREST ON OP. CAP.	acre	10.24	1.0000	10.24	_____
TOTAL DIRECT EXPENSES				715.65	_____
FIXED EXPENSES					
Implements	acre	18.29	1.0000	18.29	_____
Tractors	acre	21.98	1.0000	21.98	_____
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 3<sup>rd</sup> year.**



Table 3.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	acre	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 EXPENSES				100.35	_____
TOTAL FIXED EXPENSES				132.47	_____
				-----	
TOTAL SPECIFIED EXPENSES				848.12	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-32.12	_____

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 3<sup>rd</sup> year.**

Table 3.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	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
-----hours-----										
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 Conv.	lb					75.0000				
Rice Seed Trt/Insect	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 3lbs 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	lbseed					13.6000				
Rice Consultant	acre			1.00	May	1.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
App by Air ( 5 gal)	appl			1.00	May	1.0000				
Regiment	oz					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	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					0.5000				
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	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	
<b>TOTALS</b>							<b>0.70</b>	<b>0.70</b>	<b>2.89</b>	<b>0.53</b>

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<sup>rd</sup> year.**

Table 3.D Estimated costs for field operations, per acre  
 Straight levee rice  
 Multi inlet flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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 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
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											
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	1.43						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						0.03	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
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	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	10.17	30.08	14.66	12.06			1.08	68.05	68.82	136.87
TOTALS		591.89	42.07	33.37	38.08	0.00	10.24	715.65	132.47	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 3<sup>rd</sup> year.**

Table 3.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs

Table 3.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	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT			dollars										
YIELD	UNIT												
50	80.00	bu	-349 -481	-328 -461	-308 -440	-288 -420	-267 -400	-247 -379	-226 -359	-206 -338	-186 -318	-165 -298	-145 -277
60	96.00	bu	-300 -432	-275 -408	-251 -383	-226 -359	-202 -334	-177 -310	-153 -285	-128 -261	-104 -236	-79 -212	-55 -187
70	112.00	bu	-251 -383	-222 -354	-193 -326	-165 -297	-136 -269	-108 -240	-79 -212	-51 -183	-22 -155	6 -126	34 -97
80	128.00	bu	-201 -334	-169 -301	-136 -269	-103 -236	-71 -203	-38 -171	-6 -138	26 -105	59 -73	91 -40	124 -7
90	144.00	bu	-152 -285	-116 -248	-79 -211	-42 -175	-5 -138	30 -101	67 -64	104 -28	140 8	177 45	214 81
100	160.00	bu	-103 -236	-62 -195	-22 -154	18 -113	59 -72	100 -32	141 8	181 49	222 90	263 131	304 171
110	176.00	bu	-54 -187	-9 -142	35 -97	80 -52	124 -7	169 37	214 82	259 127	304 172	349 216	394 261
120	192.00	bu	-5 -137	43 -88	92 -39	141 9	190 57	239 106	288 155	337 204	386 253	435 302	484 351
130	208.00	bu	43 -88	96 -35	149 17	202 70	255 123	308 176	361 229	414 282	468 335	521 388	574 441
140	224.00	bu	92 -39	149 17	207 74	264 131	321 188	378 245	435 303	492 360	549 417	606 474	664 531
150	240.00	bu	141 9	203 70	264 131	325 193	386 254	447 315	509 376	570 437	631 499	692 560	753 621

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 4.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)	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)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.32	75.0000	24.00	_____
Rice Seed Trt/Insect	lbseed	0.29	75.0000	21.75	_____
ADJUVANTS					
Class Act NG	pt	1.75	0.5000	0.88	_____
MSO	pt	2.40	1.5000	3.60	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc. (Pet.)	pt	2.86	0.5000	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	_____
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	0.4228	6.20	_____
Harvesters	hour	14.68	0.1760	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					
	hour	14.69	0.5389	7.92	_____
DIESEL FUEL					
Tractors	gal	1.53	4.8970	7.48	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	15.4779	23.68	_____
REPAIR & MAINTENANCE					
Implements	acre	8.40	1.0000	8.40	_____
Tractors	acre	3.07	1.0000	3.07	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	11.80	1.0000	11.80	_____
INTEREST ON OP. CAP.	acre	9.67	1.0000	9.67	_____
TOTAL DIRECT EXPENSES				684.83	_____
FIXED EXPENSES					
Implements	acre	17.16	1.0000	17.16	_____
Tractors	acre	18.77	1.0000	18.77	_____
Harvesters	acre	27.72	1.0000	27.72	_____
Flood Irr.	acre	64.16	1.0000	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 3<sup>rd</sup> year.**

Table 4.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	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	9.53	_____
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	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 EXPENSES				131.17	_____
TOTAL FIXED EXPENSES				127.81	_____
				-----	
TOTAL SPECIFIED EXPENSES				812.64	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				3.36	_____

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<sup>rd</sup> year.**

Table 4.C Estimated resource use for field operations, per acre  
 Straight levee rice - zero grade  
 Flood irrigated, 19 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
						-----hours-----				
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 Conv.	lb					75.0000				
Rice Seed Trt/Insect	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 3lbs 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	May	1.0000				
App Fert by Air	cwt			1.00	May	1.0000				
Amm Sulfate (21% N)	cwt					0.5000				
DAP	cwt					0.5000				
App by Air ( 5 gal)	appl			1.00	May	1.0000				
Regiment	oz					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	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					0.5000				
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	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			1.05	
TOTALS							0.59	0.59	2.67	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 3<sup>rd</sup> year.**



Table 4.D Estimated costs for field operations, per acre  
 Straight levee rice - zero grade  
 Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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 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
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	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											
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	1.43						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						0.03	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
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	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		23.68	11.80	9.53			0.68	45.69	64.16	109.85
TOTALS		573.43	35.67	30.51	35.55	0.00	9.67	684.83	127.81	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 3<sup>rd</sup> year.**

Table 4.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

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

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 5.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		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.5000	31.50	_____
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)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	6.19	23.0000	142.37	_____
Rice Seed CvH (Levee)	lb	1.93	4.2500	8.20	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc. (Pet.)	pt	2.86	0.4000	1.14	_____
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	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	hour	14.68	0.1760	2.58	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	3.5250	31.96	_____
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	5.9886	9.16	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	26.8827	41.14	_____
REPAIR & MAINTENANCE					
Implements	acre	8.59	1.0000	8.59	_____
Tractors	acre	3.69	1.0000	3.69	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.	acre	11.89	1.0000	11.89	_____
TOTAL DIRECT EXPENSES				784.44	_____
FIXED EXPENSES					
Implements	acre	18.06	1.0000	18.06	_____
Tractors	acre	22.58	1.0000	22.58	_____
Harvesters	acre	27.72	1.0000	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 3<sup>rd</sup> year.**

Table 5.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 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	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 EXPENSES				133.56	_____
TOTAL FIXED EXPENSES				110.44	_____
				-----	
TOTAL SPECIFIED EXPENSES				894.88	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				23.12	_____

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 3<sup>rd</sup> year.**

Table 5.C Estimated resource use for field operations, per acre  
 Conventional hybrid contour levee rice  
 Flood irrigated, 33 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
							-----hours-----			
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 Conv Hyb Trt	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 3lbs 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 CvH(Levee)	lb					4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
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 by Air ( 5 gal)	appl			1.00	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.)	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	
TOTALS							0.72	0.72	5.27	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 3<sup>rd</sup> year.**

Table 5.D Estimated costs for field operations, per acre  
 Conventional hybrid contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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											
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		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	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	

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<sup>rd</sup> year.**

Table 5.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs



Table 5.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	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT	YIELD	UNIT	dollars										
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 6.A Estimated costs per acre  
 Conventional hybrid straight levee rice  
 Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.5000	31.50	_____
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)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	6.19	23.0000	142.37	_____
Rice Seed CvH (Levee)	lb	1.93	4.2500	8.20	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc. (Pet.)	pt	2.86	0.4000	1.14	_____
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	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.	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	11.58	1.0000	11.58	_____
TOTAL DIRECT EXPENSES				762.26	_____
FIXED EXPENSES					
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	_____
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 3<sup>rd</sup> year.**

Table 6.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	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	11.58	1.0000	11.58	_____
				-----	
TOTAL DIRECT EXPENSES				762.26	_____
RETURNS ABOVE DIRECT EXPENSES				155.74	_____
TOTAL FIXED EXPENSES				131.30	_____
				-----	
TOTAL SPECIFIED EXPENSES				893.56	_____
RETURNS ABOVE TOTAL SPECIFIED 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 3<sup>rd</sup> year.**

Table 6.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 OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
							-----hours-----			
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 Conv Hyb Trt	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 3lbs 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 CvH(Levee)	lb					4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
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 by Air ( 5 gal)	appl			1.00	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.)	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	
TOTALS							0.67	0.67	4.07	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 3<sup>rd</sup> year.**

Table 6.D Estimated costs for field operations, per acre  
 Conventional hybrid straight levee rice  
 Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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											
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		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	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	

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<sup>rd</sup> year.**

Table 6.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
-----dollars-----												
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 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 6.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	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT			dollars										
YIELD	UNIT												
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 7.A Estimated costs 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	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.5000	31.50	_____
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)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	6.19	23.0000	142.37	_____
Rice Seed CvH (Levee)	lb	1.93	4.2500	8.20	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc. (Pet.)	pt	2.86	0.4000	1.14	_____
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	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	hour	14.68	0.1760	2.58	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	1.1250	10.18	_____
Implements	hour	9.06	0.0375	0.34	_____
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	5.8180	8.89	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	18.7364	28.67	_____
REPAIR & MAINTENANCE					
Implements	acre	8.58	1.0000	8.58	_____
Tractors	acre	3.59	1.0000	3.59	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	13.96	1.0000	13.96	_____
INTEREST ON OP. CAP.	acre	11.50	1.0000	11.50	_____
TOTAL DIRECT EXPENSES				754.79	_____
FIXED EXPENSES					
Implements	acre	18.29	1.0000	18.29	_____
Tractors	acre	21.98	1.0000	21.98	_____
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				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 3<sup>rd</sup> year.**



Table 7.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 EXPENSES				163.21	_____
TOTAL FIXED EXPENSES				132.47	_____
				-----	
TOTAL SPECIFIED EXPENSES				887.26	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				30.74	_____

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 3<sup>rd</sup> year.**

Table 7.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	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR	hours	
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 Conv Hyb Trt	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 3lbs 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 CvH(Levee)	lb					4.2500						
Rice Seed Trt/Insect	lbseed					4.2500						
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 by Air ( 5 gal)	appl			1.00	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.)	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	0.10	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 3<sup>rd</sup> year.**

Table 7.D Estimated costs for field operations, per acre  
 Conventional hybrid straight levee multi inlet rice  
 Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	7.12
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
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										
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
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	0.71
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
Flood Irr.	acre	10.17	30.08	14.66	12.06			1.08	68.05	68.82
TOTALS		629.77	42.07	33.37	38.08	0.00	11.50	754.79	132.47	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 3<sup>rd</sup> year.**

Table 7.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 7.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	110	115	120	125
			-----PRODUCT PRICE-----										
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	-----dollars-----										
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 8.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)	appl	7.00	4.5000	31.50	_____
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)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Regiment	oz	43.56	0.5000	21.78	_____
Facet L	pt	14.57	2.6900	39.19	_____
Permit	oz	21.99	0.7500	16.49	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	6.19	23.0000	142.37	_____
Rice Seed CvH (Levee)	lb	1.93	4.2500	8.20	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Dyne-A-Pak	pt	5.16	0.5000	2.58	_____
Crop Oil Conc. (Pet.)	pt	2.86	0.4000	1.14	_____
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					
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	0.4228	6.20	_____
Harvesters	hour	14.68	0.1760	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					
	hour	14.69	0.5389	7.92	_____
DIESEL FUEL					
Tractors	gal	1.53	4.8970	7.48	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	15.4779	23.68	_____
REPAIR & MAINTENANCE					
Implements	acre	8.40	1.0000	8.40	_____
Tractors	acre	3.07	1.0000	3.07	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	11.80	1.0000	11.80	_____
INTEREST ON OP. CAP.	acre	11.10	1.0000	11.10	_____
TOTAL DIRECT EXPENSES				732.43	_____
FIXED EXPENSES					
Implements	acre	17.16	1.0000	17.16	_____
Tractors	acre	18.77	1.0000	18.77	_____
Harvesters	acre	27.72	1.0000	27.72	_____
Flood Irr.	acre	64.16	1.0000	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 3<sup>rd</sup> year.**

Table 8.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	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	14.69	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	11.10	1.0000	11.10	_____
				-----	
TOTAL DIRECT EXPENSES				732.43	_____
RETURNS ABOVE DIRECT EXPENSES				185.57	_____
TOTAL FIXED EXPENSES				127.81	_____
				-----	
TOTAL SPECIFIED EXPENSES				860.24	_____
RETURNS ABOVE TOTAL SPECIFIED 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 3<sup>rd</sup> year.**

Table 8.C Estimated resource use for field operations, per acre  
 Conventional hybrid straight levee-zero grade rice  
 Flood irrigated, 19 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
							-----hours-----			
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 Conv Hyb Trt	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 3lbs 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 CvH(Levee)	lb					4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
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 by Air ( 5 gal)	appl			1.00	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.)	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			1.05	
TOTALS							0.59	0.59	2.67	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 3<sup>rd</sup> year.**



Table 8.D Estimated costs for field operations, per acre  
 Conventional hybrid straight levee-zero grade rice  
 Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	7.12
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
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										
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
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	0.71
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
Flood Irr.	acre		23.68	11.80	9.53			0.68	45.69	64.16
TOTALS		619.60	35.67	30.51	35.55	0.00	11.10	732.43	127.81	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 3<sup>rd</sup> year.**

Table 8.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre  
 Conventional hybrid straight levee-zero grade rice  
 Flood irrigated, 19 ac-in., Mississippi, 2021

PRODUCT			PERCENT										
-----			75	80	85	90	95	100	105	110	115	120	125
-----			PRODUCT PRICE										
-----			-----										
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	dollars										
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
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.  
 Only the product listed has been varied to calculate net returns.  
 Note: Cost of production estimates are based on 2020 input prices.

Table 9.A Estimated costs per acre  
 Clearfield contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Clearpath	oz	3.76	9.6000	36.10	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Seed Clearfield	lb	0.96	65.0000	62.40	_____
Rice Seed Trt/Insect	lbseed	0.29	77.0000	22.33	_____
Rice Seed CF(Levees)	lb	0.96	12.0000	11.52	_____
ADJUVANTS					
Class Act NG	pt	1.75	0.5000	0.88	_____
MSO	pt	2.40	1.5000	3.60	_____
Crop Oil Conc. (Pet.)	pt	2.86	4.0000	11.44	_____
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	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	hour	14.68	0.2030	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	hour	9.06	0.0785	0.71	_____
RICE MGT. LABOR					
Special Labor	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR					
	hour	14.68	0.5633	8.27	_____
DIESEL FUEL					
Tractors	gal	1.53	5.9886	9.16	_____
Harvesters	gal	1.53	3.3975	5.20	_____
Flood Irr.	gal	1.53	26.8827	41.14	_____
REPAIR & MAINTENANCE					
Implements	acre	8.97	1.0000	8.97	_____
Tractors	acre	3.69	1.0000	3.69	_____
Harvesters	acre	8.36	1.0000	8.36	_____
Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.	acre	11.75	1.0000	11.75	_____
TOTAL DIRECT EXPENSES				798.37	_____
FIXED EXPENSES					
Implements	acre	18.64	1.0000	18.64	_____
Tractors	acre	22.58	1.0000	22.58	_____
Harvesters	acre	31.99	1.0000	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 3<sup>rd</sup> year.**

Table 9.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 EXPENSES				17.63	_____
TOTAL FIXED EXPENSES				115.29	_____
				-----	
TOTAL SPECIFIED EXPENSES				913.66	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-97.66	_____

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 3<sup>rd</sup> year.**

Table 9.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	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
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 3lbs 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 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					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					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Newpath	oz					6.0000				
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								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	oz					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	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	0.12	0.12	3.64	
TOTALS							0.75	0.75	6.10	0.56

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 3<sup>rd</sup> year.**

Table 9.D Estimated costs for field operations, per acre  
Clearfield contour levee rice  
Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	2.54	2.90			0.14	6.97	7.12	14.09
Rice Seed Clearfield	lb	62.40						1.25	63.65		63.65
Rice Seed Trt/Insect	lbseed	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 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
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 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											
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	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	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	46.79	144.49
TOTALS		627.98	55.50	35.33	67.81	0.00	11.75	798.37	115.29	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 3<sup>rd</sup> year.**

Table 9.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.



Table 9.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	100	105	110	115	120	125
			PRODUCT PRICE										
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	dollars										
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 10.A Estimated costs per acre  
Clearfield straight levee rice  
Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Clearpath	oz	3.76	9.6000	36.10	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Seed Clearfield	lb	0.96	65.0000	62.40	_____
Rice Seed Trt/Insect	lbseed	0.29	77.0000	22.33	_____
Rice Seed CF (Levees)	lb	0.96	12.0000	11.52	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Crop Oil Conc. (Pet.)	pt	2.86	4.0000	11.44	_____
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	0.4999	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	14.31	_____
INTEREST ON OP. CAP.					
	acre	11.32	1.0000	11.32	_____
TOTAL DIRECT EXPENSES				765.88	_____
FIXED EXPENSES					
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	_____
TOTAL FIXED EXPENSES				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 3<sup>rd</sup> year.**

Table 10.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 EXPENSES				50.12	_____
TOTAL FIXED EXPENSES				131.30	_____
				-----	
TOTAL SPECIFIED EXPENSES				897.18	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-81.18	_____

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 3<sup>rd</sup> year.**

Table 10.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	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
-----hours-----										
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 3lbs 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					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					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Newpath	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					1.0000				
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					1.5000				
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	0.07	0.07	2.45	
<b>TOTALS</b>							<b>0.67</b>	<b>0.67</b>	<b>4.07</b>	<b>0.53</b>

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<sup>rd</sup> year.**

Table 10.D Estimated costs for field operations, per acre  
 Clearfield straight levee rice  
 Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	2.54	2.90			0.14	6.97	7.12	14.09
Rice Seed Clearfield	lb	62.40						1.25	63.65		63.65
Rice Seed Trt/Insect	lbseed	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 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											
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											
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	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	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		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	67.65	143.17
TOTALS		625.73	46.66	33.50	48.67	0.00	11.32	765.88	131.30	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 3<sup>rd</sup> year.**

Table 10.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs

Table 10.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	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT			dollars										
YIELD	UNIT												
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 8	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 11.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)	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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Clearpath	oz	3.76	9.6000	36.10	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
Rice Seed Clearfield	lb	0.96	65.0000	62.40	_____
Rice Seed Trt/Insect	lbseed	0.29	77.0000	22.33	_____
Rice Seed CF(Levees)	lb	0.96	12.0000	11.52	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Crop Oil Conc. (Pet.)	pt	2.86	4.0000	11.44	_____
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	hour	14.68	0.1760	2.58	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	1.1250	10.18	_____
Implements	hour	9.06	0.0375	0.34	_____
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	5.8180	8.89	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	18.7364	28.67	_____
REPAIR & MAINTENANCE					
Implements	acre	8.58	1.0000	8.58	_____
Tractors	acre	3.59	1.0000	3.59	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	13.96	1.0000	13.96	_____
INTEREST ON OP. CAP.	acre	11.24	1.0000	11.24	_____
TOTAL DIRECT EXPENSES				758.41	_____
FIXED EXPENSES					
Implements	acre	18.29	1.0000	18.29	_____
Tractors	acre	21.98	1.0000	21.98	_____
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				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 3<sup>rd</sup> year.**



Table 11.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 EXPENSES				57.59	_____
TOTAL FIXED EXPENSES				132.47	_____
				-----	
TOTAL SPECIFIED EXPENSES				890.88	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-74.88	_____

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 3<sup>rd</sup> year.**

Table 11.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
-----hours-----										
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 3lbs 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					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					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Newpath	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					1.0000				
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					1.5000				
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	
<b>TOTALS</b>							<b>0.70</b>	<b>0.70</b>	<b>2.89</b>	<b>0.53</b>

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<sup>rd</sup> year.**

Table 11.D Estimated costs for field operations, per acre  
 Clearfield straight levee multi inlet rice  
 Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	7.12
Rice Seed Clearfield	lb	62.40						1.25	63.65	63.65
Rice Seed Trt/Insect	lbseed	18.85						0.38	19.23	19.23
Roller/Cultipacker	30'		0.88	0.53	1.39			0.06	2.86	2.43
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										
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										
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	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	19.27	31.45
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	0.71
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
Flood Irr.	acre	10.17	30.08	14.66	12.06			1.08	68.05	68.82
TOTALS		633.65	42.07	33.37	38.08	0.00	11.24	758.41	132.47	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 3<sup>rd</sup> year.**

Table 11.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 11.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	100	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT			dollars										
YIELD	UNIT												
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 12.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)	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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
Clearpath	oz	3.76	9.6000	36.10	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Seed Clearfield	lb	0.96	65.0000	62.40	_____
Rice Seed Trt/Insect	lbseed	0.29	77.0000	22.33	_____
Rice Seed CF (Levees)	lb	0.96	12.0000	11.52	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Crop Oil Conc. (Pet.)	pt	2.86	4.0000	11.44	_____
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	_____
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	0.4228	6.20	_____
Harvesters	hour	14.68	0.1760	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					
	hour	14.69	0.5389	7.92	_____
DIESEL FUEL					
Tractors	gal	1.53	4.8970	7.48	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	15.4779	23.68	_____
REPAIR & MAINTENANCE					
Implements	acre	8.40	1.0000	8.40	_____
Tractors	acre	3.07	1.0000	3.07	_____
Harvesters	acre	7.24	1.0000	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				736.05	_____
FIXED EXPENSES					
Implements	acre	17.16	1.0000	17.16	_____
Tractors	acre	18.77	1.0000	18.77	_____
Harvesters	acre	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 3<sup>rd</sup> year.**

Table 12.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	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	_____
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	14.69	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	10.84	1.0000	10.84	_____
				-----	
TOTAL DIRECT EXPENSES				736.05	_____
RETURNS ABOVE DIRECT EXPENSES				79.95	_____
TOTAL FIXED EXPENSES				127.81	_____
				-----	
TOTAL SPECIFIED EXPENSES				863.86	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-47.86	_____

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 3<sup>rd</sup> year.**

Table 12.C Estimated resource use for field operations, per acre  
Clearfield straight levee-zero grade rice  
Flood irrigated, 19 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
-----hours-----										
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 3lbs 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					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					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Newpath	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					1.0000				
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					1.5000				
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			1.05	
TOTALS							0.59	0.59	2.67	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 3<sup>rd</sup> year.**



Table 12.D Estimated costs for field operations, per acre  
Clearfield straight levee-zero grade rice  
Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	7.12
Rice Seed Clearfield	lb	62.40						1.25	63.65	63.65
Rice Seed Trt/Insect	lbseed	18.85						0.38	19.23	19.23
Roller/Cultipacker	30'		0.88	0.53	1.39			0.06	2.86	2.43
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										
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										
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	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	19.27	31.45
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	0.71
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
Flood Irr.	acre		23.68	11.80	9.53			0.68	45.69	64.16
TOTALS		623.48	35.67	30.51	35.55	0.00	10.84	736.05	127.81	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 3<sup>rd</sup> year.**

Table 12.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	May	Jun	Jul	Aug	Sep
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs

Table 12.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	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT			dollars										
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 13.A Estimated costs per acre  
 Fullpage hybrid contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	3.5000	24.50	_____
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Preface	oz	4.05	11.0000	44.55	_____
Facet L	pt	14.57	2.0000	29.14	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Fullpage Hyb Tr	lb	6.97	23.0000	160.31	_____
Rice Seed FPH(Levee)	lb	2.67	4.2500	11.35	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Crop Oil Conc.(Pet.)	pt	2.86	4.0000	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	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	hour	14.68	0.1760	2.58	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	3.5250	31.96	_____
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	5.9886	9.16	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	26.8827	41.14	_____
REPAIR & MAINTENANCE					
Implements	acre	8.59	1.0000	8.59	_____
Tractors	acre	3.69	1.0000	3.69	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.					
	acre	12.78	1.0000	12.78	_____
TOTAL DIRECT EXPENSES				820.87	_____
FIXED EXPENSES					
Implements	acre	18.06	1.0000	18.06	_____
Tractors	acre	22.58	1.0000	22.58	_____
Harvesters	acre	27.72	1.0000	27.72	_____
Flood Irr.	acre	42.08	1.0000	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 3<sup>rd</sup> year.**

Table 13.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	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	12.78	1.0000	12.78	_____
				-----	
TOTAL DIRECT EXPENSES				820.87	_____
RETURNS ABOVE DIRECT EXPENSES				97.13	_____
TOTAL FIXED EXPENSES				110.44	_____
				-----	
TOTAL SPECIFIED EXPENSES				931.31	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-13.31	_____

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<sup>rd</sup> year.**

Table 13.C Estimated resource use for field operations, per acre  
 Fullpage hybrid contour levee rice  
 Flood irrigated, 33 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
							-----hours-----			
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 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 3lbs 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 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.)	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	2.6700				
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					1.0000				
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	
TOTALS							0.72	0.72	5.27	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 3<sup>rd</sup> year.**

Table 13.D Estimated costs for field operations, per acre  
 Fullpage hybrid contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	7.12
Rice Fullpage Hyb Tr	lb	160.31						3.21	163.52	163.52
Roller/Cultipacker	30'		0.88	0.53	1.39			0.06	2.86	2.43
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										
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	oz	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.)	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	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
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	0.71
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
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<sup>rd</sup> year.**

Table 13.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.



Table 13.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	105	110	115	120	125
			-----PRODUCT PRICE-----										
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	-----dollars-----										
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 14.A Estimated costs per acre  
 Fullpage hybrid straight levee rice  
 Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	3.5000	24.50	_____
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Preface	oz	4.05	11.0000	44.55	_____
Facet L	pt	14.57	2.0000	29.14	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Fullpage Hyb Tr	lb	6.97	23.0000	160.31	_____
Rice Seed FPH (Levee)	lb	2.67	4.2500	11.35	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Crop Oil Conc. (Pet.)	pt	2.86	4.0000	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	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.	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	12.47	1.0000	12.47	_____
TOTAL DIRECT EXPENSES				798.69	_____
FIXED EXPENSES					
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	_____
TOTAL FIXED EXPENSES				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 3<sup>rd</sup> year.**

Table 14.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	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	_____
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	12.47	1.0000	12.47	_____
				-----	
TOTAL DIRECT EXPENSES				798.69	_____
RETURNS ABOVE DIRECT EXPENSES				119.31	_____
TOTAL FIXED EXPENSES				131.30	_____
				-----	
TOTAL SPECIFIED EXPENSES				929.99	_____
RETURNS ABOVE TOTAL SPECIFIED 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 3<sup>rd</sup> year.**

Table 14.C Estimated resource use for field operations, per acre  
 Fullpage hybrid 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
						-----hours-----				
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 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 3lbs 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 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.)	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	2.6700				
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					1.0000				
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	
TOTALS							0.67	0.67	4.07	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 3<sup>rd</sup> year.**

Table 14.D Estimated costs for field operations, per acre  
 Fullpage hybrid straight levee rice  
 Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	2.54	2.90			0.14	6.97	7.12	14.09
Rice Fullpage Hyb Tr	lb	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 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											
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	oz	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.)	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	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		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	2.25	34.67	14.79	22.65			1.16	75.52	67.65	143.17
TOTALS			657.39	46.66	33.50	48.67	0.00	12.47	798.69	131.30	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 3<sup>rd</sup> year.**

Table 14.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
-----dollars-----												
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 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 14.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	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
PERCENT YIELD UNIT			dollars										
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 15.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)	appl	7.00	3.5000	24.50	_____
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Preface	oz	4.05	11.0000	44.55	_____
Facet L	pt	14.57	2.0000	29.14	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
Rice Fullpage Hyb Tr	lb	6.97	23.0000	160.31	_____
Rice Seed FPH (Levee)	lb	2.67	4.2500	11.35	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Crop Oil Conc. (Pet.)	pt	2.86	4.0000	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	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	hour	14.68	0.1760	2.58	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	1.1250	10.18	_____
Implements	hour	9.06	0.0375	0.34	_____
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	5.8180	8.89	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	18.7364	28.67	_____
REPAIR & MAINTENANCE					
Implements	acre	8.58	1.0000	8.58	_____
Tractors	acre	3.59	1.0000	3.59	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	13.96	1.0000	13.96	_____
INTEREST ON OP. CAP.	acre	12.39	1.0000	12.39	_____
TOTAL DIRECT EXPENSES				791.22	_____
FIXED EXPENSES					
Implements	acre	18.29	1.0000	18.29	_____
Tractors	acre	21.98	1.0000	21.98	_____
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				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 3<sup>rd</sup> year.**



Table 15.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 EXPENSES				126.78	_____
TOTAL FIXED EXPENSES				132.47	_____
				-----	
TOTAL SPECIFIED EXPENSES				923.69	_____
RETURNS ABOVE TOTAL SPECIFIED 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 3<sup>rd</sup> year.**

Table 15.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	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
							-----hours-----			
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 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 3lbs 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 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.)	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	2.6700				
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					1.0000				
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	0.10	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 3<sup>rd</sup> year.**

Table 15.D Estimated costs for field operations, per acre  
 Fullpage hybrid straight levee multi inlet rice  
 Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	7.12
Rice Fullpage Hyb Tr	lb	160.31						3.21	163.52	163.52
Roller/Cultipacker	30'		0.88	0.53	1.39			0.06	2.86	2.43
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										
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	oz	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.)	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	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
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	0.71
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
Flood Irr.	acre	10.17	30.08	14.66	12.06			1.08	68.05	68.82
TOTALS		665.31	42.07	33.37	38.08	0.00	12.39	791.22	132.47	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 3<sup>rd</sup> year.**

Table 15.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 15.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	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
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 16.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)	appl	7.00	3.5000	24.50	_____
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	3.3220	65.58	_____
NBPT	pt	11.06	0.8000	8.85	_____
HERBICIDES					
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	_____
Preface	oz	4.05	11.0000	44.55	_____
Facet L	pt	14.57	2.0000	29.14	_____
Aim	oz	5.67	1.5000	8.50	_____
Clincher SF	oz	2.26	7.5000	16.95	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Fullpage Hyb Tr	lb	6.97	23.0000	160.31	_____
Rice Seed FPH (Levee)	lb	2.67	4.2500	11.35	_____
Rice Seed Trt/Insect	lbseed	0.29	4.2500	1.23	_____
ADJUVANTS					
MSO	pt	2.40	1.5000	3.60	_____
Class Act NG	pt	1.75	0.5000	0.88	_____
Crop Oil Conc. (Pet.)	pt	2.86	4.0000	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					
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	0.4228	6.20	_____
Harvesters	hour	14.68	0.1760	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					
	hour	14.69	0.5389	7.92	_____
DIESEL FUEL					
Tractors	gal	1.53	4.8970	7.48	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	15.4779	23.68	_____
REPAIR & MAINTENANCE					
Implements	acre	8.40	1.0000	8.40	_____
Tractors	acre	3.07	1.0000	3.07	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	11.80	1.0000	11.80	_____
INTEREST ON OP. CAP.	acre	11.99	1.0000	11.99	_____
TOTAL DIRECT EXPENSES				768.86	_____
FIXED EXPENSES					
Implements	acre	17.16	1.0000	17.16	_____
Tractors	acre	18.77	1.0000	18.77	_____
Harvesters	acre	27.72	1.0000	27.72	_____
Flood Irr.	acre	64.16	1.0000	64.16	_____
TOTAL FIXED EXPENSES				127.81	_____
TOTAL SPECIFIED EXPENSES				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 3<sup>rd</sup> year.**

Table 16.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	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	acre	30.51	1.0000	30.51	_____
INTEREST ON OP. CAP.	acre	11.99	1.0000	11.99	_____
				-----	
TOTAL DIRECT EXPENSES				768.86	_____
RETURNS ABOVE DIRECT EXPENSES				149.14	_____
TOTAL FIXED EXPENSES				127.81	_____
				-----	
TOTAL SPECIFIED EXPENSES				896.67	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				21.33	_____

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<sup>rd</sup> year.**

Table 16.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 OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR	hours	
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 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 3lbs 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 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.)	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	2.6700						
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					1.0000						
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				1.05		
TOTALS							0.59	0.59	2.67	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 3<sup>rd</sup> year.**



Table 16.D Estimated costs for field operations, per acre  
 Fullpage hybrid straight levee-zero grade rice  
 Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						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'		1.39	2.54	2.90			0.14	6.97	7.12
Rice Fullpage Hyb Tr	lb	160.31						3.21	163.52	163.52
Roller/Cultipacker	30'		0.88	0.53	1.39			0.06	2.86	2.43
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										
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	oz	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.)	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	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
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	0.71
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
Flood Irr.	acre		23.68	11.80	9.53			0.68	45.69	64.16
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 3<sup>rd</sup> year.**

Table 16.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 16.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	110	115	120	125
			-----PRODUCT PRICE-----										
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	-----dollars-----										
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 17.A Estimated costs per acre  
 Provisia contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
Rice Seed Provisia	lb	1.23	77.0000	94.71	_____
Rice Seed Trt/Insect	lbseed	0.29	77.0000	22.33	_____
ADJUVANTS					
Class Act NG	pt	1.75	0.5000	0.88	_____
MSO	pt	2.40	0.5000	1.20	_____
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	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	hour	14.68	0.2030	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	hour	9.06	0.0785	0.71	_____
RICE MGT. LABOR					
Special Labor	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR					
	hour	14.68	0.5633	8.27	_____
DIESEL FUEL					
Tractors	gal	1.53	5.9886	9.16	_____
Harvesters	gal	1.53	3.3975	5.20	_____
Flood Irr.	gal	1.53	26.8827	41.14	_____
REPAIR & MAINTENANCE					
Implements	acre	8.97	1.0000	8.97	_____
Tractors	acre	3.69	1.0000	3.69	_____
Harvesters	acre	8.36	1.0000	8.36	_____
Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.					
	acre	11.74	1.0000	11.74	_____
TOTAL DIRECT EXPENSES				789.92	_____
FIXED EXPENSES					
Implements	acre	18.64	1.0000	18.64	_____
Tractors	acre	22.58	1.0000	22.58	_____
Harvesters	acre	31.99	1.0000	31.99	_____
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 3<sup>rd</sup> year.**

Table 17.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 EXPENSES				5.68	_____
TOTAL FIXED EXPENSES				115.29	_____
				-----	
TOTAL SPECIFIED EXPENSES				905.21	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-109.61	_____

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<sup>rd</sup> year.**

Table 17.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 SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER UNIT	ALLOC LABOR	UNALL LABOR	
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Field Cultivate Fld	32'	MFWD 225	0.046	2.00	Oct		0.09	0.09	0.08	
Harrow - Folding	40'	MFWD 225	0.038	1.00	Oct		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	
Rice Seed Provisia	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	
App by Air ( 5 gal)	appl			1.00	Apr	1.0000				
Glyphosate 3lbs 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 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					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					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Provisia	oz					15.5000				
Crop Oil Conc. (Pet.)	pt					2.0000				
Rice Management				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					1.5000				
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	oz					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	0.18	
Grain Cart Rice	700 bu	MFWD 225	0.055	0.20	Aug		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	0.13	
Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	
<b>TOTALS</b>							<b>0.75</b>	<b>0.75</b>	<b>6.10</b>	<b>0.56</b>

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<sup>rd</sup> year.**

Table 17.D Estimated costs for field operations, per acre  
 Provisia contour levee rice  
 Flood irrigated, 33 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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	lbseed	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 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
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 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.)	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	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				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				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	54.60						0.36	54.96		54.96
Dry Rice	bu	62.40						0.42	62.82		62.82
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	46.79	144.49
TOTALS		619.54	55.50	35.33	67.81	0.00	11.74	789.92	115.29	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 3<sup>rd</sup> year.**

Table 17.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	May	Jun	Jul	Aug	Sep
-----dollars-----												
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 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.



Table 17.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
			-----PRODUCT PRICE-----										
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	-----dollars-----										
50	78.00	bu	-432 -547	-412 -528	-392 -508	-373 -488	-353 -468	-333 -448	-313 -428	-293 -408	-273 -388	-253 -368	-233 -349
60	93.60	bu	-384 -500	-360 -476	-337 -452	-313 -428	-289 -404	-265 -380	-241 -356	-217 -333	-193 -309	-169 -285	-146 -261
70	109.20	bu	-336 -452	-309 -424	-281 -396	-253 -368	-225 -340	-197 -312	-169 -285	-141 -257	-114 -229	-86 -201	-58 -173
80	124.80	bu	-289 -404	-257 -372	-225 -340	-193 -308	-161 -276	-129 -245	-98 -213	-66 -181	-34 -149	-2 -117	29 -86
90	140.40	bu	-241 -356	-205 -320	-169 -284	-133 -248	-97 -213	-62 -177	-26 -141	9 -105	45 -69	81 -34	116 1
100	156.00	bu	-193 -308	-153 -268	-113 -228	-73 -189	-34 -149	5 -109	45 -69	85 -30	125 9	164 49	204 89
110	171.60	bu	-145 -260	-101 -216	-57 -173	-14 -129	29 -85	73 -41	117 1	160 45	204 89	248 133	292 176
120	187.20	bu	-97 -212	-49 -164	-1 -117	45 -69	93 -21	141 25	188 73	236 121	284 169	332 216	379 264
130	202.80	bu	-49 -164	2 -113	53 -61	105 -9	157 42	209 93	260 145	312 197	364 248	415 300	467 352
140	218.40	bu	-1 -116	54 -61	109 -5	165 50	221 105	276 161	332 217	388 272	443 328	499 384	555 439
150	234.00	bu	46 -69	105 -9	165 50	225 109	284 169	344 229	404 288	463 348	523 408	583 467	642 527

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  
 Provisia straight levee rice  
 Flood irrigated, 27 ac-in., Mississippi, 2021

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
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					
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.	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	_____
TOTAL DIRECT EXPENSES				757.43	_____
FIXED EXPENSES					
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	_____
TOTAL FIXED EXPENSES				131.30	_____
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 3<sup>rd</sup> year.**

Table 18.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 EXPENSES				38.17	_____
TOTAL FIXED EXPENSES				131.30	_____
				-----	
TOTAL SPECIFIED EXPENSES				888.73	_____
RETURNS ABOVE TOTAL SPECIFIED 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 3<sup>rd</sup> year.**

Table 18.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
-----hours-----										
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 Provisia	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 3lbs 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 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					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					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Provisia	oz					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					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					1.5000				
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	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	
<b>TOTALS</b>							<b>0.67</b>	<b>0.67</b>	<b>4.07</b>	<b>0.53</b>

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<sup>rd</sup> year.**

Table 18.D Estimated costs for field operations, per acre  
 Provisia straight levee rice  
 Flood irrigated, 27 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Harrow - Folding	40'		0.69	0.57	1.08			0.09	2.43	2.14
App by Air ( 5 gal)	appl	7.00						0.19	7.19	4.57
Glyphosate 3lbs a.e	oz	6.24						0.17	6.41	7.19
2,4-D Amine 4	pt	4.50						0.12	4.62	6.41
Grain Drill	24'		1.39	2.54	2.90			0.14	6.97	4.62
Rice Seed Provisia	lb	79.95						1.60	81.55	14.09
Rice Seed Trt/Insect	lbseed	18.85						0.38	19.23	81.55
Roller/Cultipacker	30'		0.88	0.53	1.39			0.06	2.86	19.23
App by Air ( 5 gal)	appl	7.00						0.14	7.14	5.29
Glyphosate 3lbs a.e	oz	4.16						0.08	4.24	7.14
Command 3ME	pt	18.17						0.36	18.53	4.24
Sharpen	oz	12.08						0.24	12.32	18.53
MSO	pt	1.20						0.02	1.22	12.32
Class Act NG	pt	0.88						0.02	0.90	1.22
Seed Levees										0.90
Rice Seed Provisia	lb	14.76						0.30	15.06	
Rice Seed Trt/Insect	lbseed	3.48						0.07	3.55	15.06
App by Air ( 5 gal)	appl	7.00						0.14	7.14	3.55
Provisia	oz	13.18						0.26	13.44	7.14
Aim	oz	5.67						0.11	5.78	13.44
Permit	oz	16.49						0.33	16.82	5.78
Crop Oil Conc.(Pet.)	pt	5.72						0.11	5.83	16.82
App Fert by Air	cwt	7.50						0.13	7.63	5.83
Amm Sulfate (21% N)	cwt	9.33						0.16	9.49	7.63
DAP	cwt	10.50						0.18	10.68	9.49
Rice Consultant	acre	8.00						0.13	8.13	10.68
App Fert by Air	cwt	18.75						0.31	19.06	8.13
Urea, Solid (46% N)	cwt	49.35						0.82	50.17	19.06
NBPT	pt	8.30						0.14	8.44	50.17
App by Air (10 gal)	appl	9.00						0.15	9.15	8.44
Provisia	oz	13.18						0.22	13.40	9.15
Crop Oil Conc.(Pet.)	pt	5.72						0.10	5.82	13.40
Rice Management										5.82
RICE MGT. LABOR	hour				0.91			0.02	0.93	
App by Air ( 5 gal)	appl	3.50						0.05	3.55	0.93
Regiment	oz	10.89						0.15	11.04	3.55
Dyne-A-Pak	pt	1.29						0.02	1.31	11.04
Rice Management										1.31
RICE MGT. LABOR	hour				1.81			0.02	1.83	
App Fert by Air	cwt	11.25						0.15	11.40	1.83
Urea, Solid (46% N)	cwt	29.61						0.39	30.00	11.40
Rice Management										30.00
RICE MGT. LABOR	hour				1.81			0.02	1.83	
App by Air ( 5 gal)	appl	7.00						0.07	7.07	1.83
Flint Extra	oz	41.74						0.42	42.16	7.07
Tilt 3.6 EC	oz	7.60						0.08	7.68	42.16
Surfactant	pt	0.33							0.33	7.68
App by Air ( 3 gal)	appl	8.25						0.08	8.33	0.33
Warrior ZT	oz	7.29						0.07	7.36	8.33
Rice Management										7.36
RICE MGT. LABOR	hour				1.81			0.01	1.82	
Header - Draper (SL)	25' Rigid		4.51	9.72	4.91			0.13	19.27	1.82
Grain Cart Rice	700 bu		0.19	0.21	0.31				0.71	31.45
Handling & Storage										0.71
HAND LABOR	hour				2.27			0.02	2.29	1.42
Haul Rice	bu	54.60						0.36	54.96	
Dry Rice	bu	62.40						0.42	62.82	54.96
Disk Heavy	28'		2.68	3.45	4.22			0.03	10.38	62.82
Flood Irr.	acre	2.25	34.67	14.79	22.65			1.16	75.52	11.52
TOTALS		617.29	46.66	33.50	48.67	0.00	11.31	757.43	131.30	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 3<sup>rd</sup> year.**

Table 18.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 18.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	105	110	115	120	125
Rice			3.82	4.08	4.33	4.59	4.84	5.10	5.35	5.61	5.86	6.12	6.37
			dollars										
PERCENT	YIELD	UNIT											
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 19.A Estimated costs per acre  
 Provisia 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)	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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
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					
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	0.5281	7.74	_____
Harvesters	hour	14.68	0.1760	2.58	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	1.1250	10.18	_____
Implements	hour	9.06	0.0375	0.34	_____
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	5.8180	8.89	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	18.7364	28.67	_____
REPAIR & MAINTENANCE					
Implements	acre	8.58	1.0000	8.58	_____
Tractors	acre	3.59	1.0000	3.59	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	13.96	1.0000	13.96	_____
INTEREST ON OP. CAP.	acre	11.23	1.0000	11.23	_____
TOTAL DIRECT EXPENSES				749.96	_____
FIXED EXPENSES					
Implements	acre	18.29	1.0000	18.29	_____
Tractors	acre	21.98	1.0000	21.98	_____
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				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 3<sup>rd</sup> year.**



Table 19.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 EXPENSES				45.64	_____
TOTAL FIXED EXPENSES				132.47	_____
				-----	
TOTAL SPECIFIED EXPENSES				882.43	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-86.83	_____

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<sup>rd</sup> year.**

Table 19.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	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR	hours	
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 Provisia	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 3lbs 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 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					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					0.7500						
App by Air (10 gal)	appl			1.00	May	1.0000						
Provisia	oz					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					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					1.5000						
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	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		
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 3<sup>rd</sup> year.**

Table 19.D Estimated costs for field operations, per acre  
 Provisia straight levee multi inlet rice  
 Flood irrigated, 23 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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	lbseed	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 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											
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.)	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				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											
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	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'		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	11.23	749.96	132.47	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 3<sup>rd</sup> year.**

Table 19.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
-----dollars-----												
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

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<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 19.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	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
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	-----dollars-----										
50	78.00	bu	-392	-372	-352	-333	-313	-293	-273	-253	-233	-213	-193
			-525	-505	-485	-465	-445	-425	-405	-385	-366	-346	-326
60	93.60	bu	-344	-320	-297	-273	-249	-225	-201	-177	-153	-130	-106
			-477	-453	-429	-405	-381	-357	-334	-310	-286	-262	-238
70	109.20	bu	-296	-269	-241	-213	-185	-157	-129	-102	-74	-46	-18
			-429	-401	-373	-345	-318	-290	-262	-234	-206	-178	-150
80	124.80	bu	-249	-217	-185	-153	-121	-89	-58	-26	5	37	69
			-381	-349	-317	-286	-254	-222	-190	-158	-126	-95	-63
90	140.40	bu	-201	-165	-129	-93	-57	-22	13	49	85	121	156
			-333	-297	-262	-226	-190	-154	-118	-83	-47	-11	24
100	156.00	bu	-153	-113	-73	-33	5	45	85	125	164	204	244
			-285	-245	-206	-166	-126	-86	-47	-7	32	72	112
110	171.60	bu	-105	-61	-17	25	69	113	157	200	244	288	332
			-237	-194	-150	-106	-62	-19	24	68	112	155	199
120	187.20	bu	-57	-9	37	85	133	181	228	276	324	372	419
			-189	-142	-94	-46	0	48	96	144	191	239	287
130	202.80	bu	-9	42	93	145	197	248	300	352	404	455	507
			-142	-90	-38	13	64	116	168	219	271	323	375
140	218.40	bu	38	94	149	205	261	316	372	428	483	539	595
			-94	-38	17	72	128	184	239	295	351	407	462
150	234.00	bu	86	145	205	265	324	384	444	503	563	623	682
			-46	13	73	132	192	252	311	371	431	490	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 20.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
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
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	cwt	20.99	0.5000	10.50	_____
Urea, Solid (46% N)	cwt	19.74	4.0000	78.96	_____
NBPT	pt	11.06	0.7500	8.30	_____
FUNGICIDES					
Flint Extra	oz	8.88	4.7000	41.74	_____
Tilt 3.6 EC	oz	0.76	10.0000	7.60	_____
HERBICIDES					
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	_____
INSECTICIDES					
Warrior ZT	oz	2.43	3.0000	7.29	_____
SEED/PLANTS					
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					
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	hour	14.68	0.4228	6.20	_____
Harvesters	hour	14.68	0.1760	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					
	hour	14.69	0.5389	7.92	_____
DIESEL FUEL					
Tractors	gal	1.53	4.8970	7.48	_____
Harvesters	gal	1.53	2.9444	4.51	_____
Flood Irr.	gal	1.53	15.4779	23.68	_____
REPAIR & MAINTENANCE					
Implements	acre	8.40	1.0000	8.40	_____
Tractors	acre	3.07	1.0000	3.07	_____
Harvesters	acre	7.24	1.0000	7.24	_____
Flood Irr.	acre	11.80	1.0000	11.80	_____
INTEREST ON OP. CAP.	acre	10.83	1.0000	10.83	_____
TOTAL DIRECT EXPENSES				727.60	_____
FIXED EXPENSES					
Implements	acre	17.16	1.0000	17.16	_____
Tractors	acre	18.77	1.0000	18.77	_____
Harvesters	acre	27.72	1.0000	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 3<sup>rd</sup> year.**

Table 20.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	14.69	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 EXPENSES				68.00	_____
TOTAL FIXED EXPENSES				127.81	_____
				-----	
TOTAL SPECIFIED EXPENSES				855.41	_____
RETURNS ABOVE TOTAL SPECIFIED 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 3<sup>rd</sup> year.**

Table 20.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 OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
-----hours-----										
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 Provisia	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 3lbs 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 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					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					0.7500				
App by Air (10 gal)	appl			1.00	May	1.0000				
Provisia	oz					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					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					1.5000				
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	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			1.05	
TOTALS							0.59	0.59	2.67	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 3<sup>rd</sup> year.**



Table 20.D Estimated costs for field operations, per acre  
 Provisia straight levee-zero grade rice  
 Flood irrigated, 19 ac-in., Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----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 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'		1.39	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	lbseed	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 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											
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.)	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				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											
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	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'		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	64.16	109.85
TOTALS		615.04	35.67	30.51	35.55	0.00	10.83	727.60	127.81	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 3<sup>rd</sup> year.**

Table 20.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
-----dollars-----												
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 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 20.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	105	110	115	120	125
			-----PRODUCT PRICE-----										
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	-----dollars-----										
50	78.00	bu	-370	-350	-330	-310	-290	-270	-251	-231	-211	-191	-171
			-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.  
 Only the product listed has been varied to calculate net returns.  
 Note: Cost of production estimates are based on 2020 input prices.



## APPENDIX

Appendix Table 1. Tractors/Harvesters: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Mississippi, 2021

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Labor	Fuel	R&M	Total Direct	Fixed	Total 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	14.68	25.59	41.14	81.42	157.50	238.93
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	14.68	33.47	45.41	93.56	173.85	267.42
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	14.68	39.37	14.68	68.74	89.53	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

## 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 Direct	Fixed	Total Cost
		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:

Labor: includes allocated labor plus any additional labor from self-propelled machine.

Direct: Does not include interest on operating capital.

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2021

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Bed-Paratill w/ro	4R-30	MFWD 225	18,700	150	12	0.204	2.99	3.62	1.37	1.48	9.48	2.29	9.06	20.85
Bed-Paratill w/ro	4R-38	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-Paratill w/ro	6R-38	MFWD 225	25,500	150	12	0.107	1.57	1.90	0.99	0.78	5.25	1.65	4.77	11.68
Bed-Rip/Disk Fold.	8R-38	MFWD 190	46,900	300	20	0.073	1.07	1.09	0.17	0.44	2.78	0.76	2.70	6.24
Bed-Rip/Disk Fold.	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
Bed-Rip/Disk Fold.	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
Bed-Rip/Disk Rigid	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	4R-38	MFWD 190	21,300	300	20	0.146	2.15	2.19	0.15	0.88	5.39	0.70	5.42	11.51
Bed-Rip/Disk Rigid	6R-30	MFWD 190	29,700	300	20	0.123	1.80	1.84	0.18	0.74	4.58	0.82	4.55	9.95
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.	6-Row	MFWD 225	24,800	150	12	0.107	1.57	1.90	0.96	0.78	5.23	1.60	4.77	11.60
Bed-Rip/Disk/Cond.	8-Row	MFWD 225	33,000	150	12	0.080	1.18	1.43	0.96	0.58	4.16	1.60	3.58	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	4R-30	MFWD 225	17,500	150	12	0.204	2.99	3.62	1.29	1.48	9.39	2.15	9.06	20.62
Bed-Subsoil Rigid	4R-38	MFWD 225	16,800	150	12	0.160	2.36	2.85	0.97	1.17	7.36	1.62	7.14	16.12
Bed-Subsoil Rigid	6R-30	MFWD 225	24,300	150	12	0.136	1.99	2.41	1.19	0.99	6.60	1.99	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)	4R-38	MFWD 150	10,500	160	10	0.147	2.16	1.74	0.38	0.65	4.95	0.98	3.83	9.78
Bed/Disk (Hipper)	6R-38	MFWD 170	16,200	160	10	0.098	1.44	1.32	0.39	0.49	3.66	1.01	3.00	7.68
Bed/Disk (Hipper)	8R-30	MFWD 190	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)	16R40	MFWD 300	60,800	160	10	0.035	0.51	0.83	0.53	0.35	2.24	1.37	2.16	5.78
Bed/Disk (Hipper)Fl	8R-38	MFWD 190	22,000	160	10	0.074	1.08	1.10	0.40	0.44	3.05	1.03	2.73	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	12R-30/40	MFWD 225	50,900	160	10	0.062	0.91	1.10	0.79	0.45	3.27	2.02	2.77	8.07
Bed/Lister	4R-38	MFWD 150	18,100	160	8	0.228	3.35	2.69	0.96	1.02	8.03	2.95	5.93	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	8R-38 2x1	MFWD 190	40,400	160	8	0.060	0.88	0.89	0.56	0.36	2.71	1.73	2.22	6.67
Bed/Lister	12R-38	MFWD 225	40,400	160	8	0.060	0.88	1.06	0.56	0.43	2.95	1.73	2.66	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	12R-30	MFWD 225	37,800	160	10	0.080	1.18	1.43	0.76	0.58	3.97	1.94	3.58	9.51
Bed/Lister-Roll-Fo	12R-38	MFWD 225	36,700	160	10	0.063	0.93	1.13	0.58	0.46	3.11	1.49	2.83	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	3,830	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Box	12'-16'	MFWD 105	6,190	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	6'-7'	MFWD 105	1,270	200	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	4R-38(250)	MFWD 190	30,500	200	10	0.257	3.78	3.85	1.96	1.56	11.16	3.84	9.52	24.54
Boll Buggy	4R-38(350)	MFWD 190	30,500	200	10	0.257	3.78	3.85	1.96	1.56	11.16	3.84	9.52	24.54
Boll Buggy	4R2x1	MFWD 190	30,500	200	10	0.172	2.52	2.57	1.31	1.04	7.46	2.57	6.36	16.40
Boll Buggy	6R-30(355)	MFWD 190	30,500	200	10	0.218	3.20	3.26	1.66	1.32	9.45	3.25	8.06	20.78
Boll Buggy	6R-38(355)	MFWD 190	30,500	200	10	0.172	2.52	2.57	1.31	1.04	7.46	2.57	6.36	16.40
Chisel Plow-Folding	24'	MFWD 190	43,500	150	12	0.076	1.12	1.14	1.20	0.46	3.93	2.00	2.82	8.75
Chisel Plow-Folding	32'	MFWD 225	54,500	150	12	0.057	0.84	1.02	1.13	0.42	3.42	1.89	2.56	7.88
Chisel Plow-Folding	42'	MFWD 225	65,700	150	12	0.044	0.64	0.78	1.04	0.32	2.79	1.74	1.95	6.48
Chisel Plow-Folding	50'	MFWD 225	85,900	150	12	0.036	0.54	0.65	1.14	0.26	2.61	1.91	1.64	6.16
Chisel Plow-Folding	61'	MFWD 225	99,100	150	12	0.030	0.44	0.53	1.08	0.22	2.28	1.80	1.34	5.44
Chisel Plow-Rigid	10'	MFWD 170	7,790	150	12	0.184	2.71	2.47	0.52	0.92	6.63	0.86	5.63	13.13
Chisel Plow-Rigid	15'	2WD 130	13,200	150	12	0.123	1.80	1.26	0.58	0.43	4.09	0.97	2.52	7.60
Chisel Plow-Rigid	20'	MFWD 225	13,400	150	12	0.102	1.50	1.81	0.49	0.74	4.57	0.82	4.55	9.95
Cultivate	4R-30	2WD 105	14,600	150	10	0.206	3.02	1.70	0.80	0.45	5.99	2.04	2.66	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	4.93	1.72	3.57	10.23
Cultivate	6R-38	MFWD 150	19,300	150	10	0.108	1.59	1.28	0.55	0.48	3.91	1.42	2.81	8.16
Cultivate	8R-30	MFWD 190	23,800	150	10	0.103	1.51	1.54	0.65	0.62	4.33	1.66	3.81	9.81
Cultivate	8R-38	MFWD 190	28,400	150	10	0.073	1.08	1.10	0.55	0.44	3.18	1.42	2.72	7.33
Cultivate	8R-38 2x1	MFWD 190	35,200	150	10	0.054	0.79	0.81	0.50	0.32	2.44	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	16R-30	MFWD 225	58,400	150	10	0.051	0.75	0.91	0.80	0.37	2.84	2.04	2.28	7.18
Cultivate & Post	4R-30	2WD 105	21,900	150	10	0.220	4.34	2.73	1.28	0.42	8.79	3.69	2.80	15.28
Cultivate & Post	4R-38	2WD 105	21,600	150	10	0.173	3.42	2.15	0.99	0.33	6.90	2.86	2.20	11.98

(continued)



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---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			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	MFWD 190	45,400	150	10	0.057	1.11	0.86	0.70	0.35	3.03	1.78	2.13	6.95
Cultivate & Post	12R-30	MFWD 225	49,800	150	10	0.073	1.40	1.29	0.97	0.53	4.21	2.48	3.25	9.95
Cultivate & Post	12R-38	MFWD 225	54,000	150	10	0.057	1.11	1.02	0.83	0.42	3.39	2.12	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	32'	MFWD 225	68,700	200	10	0.065	1.25	1.16	1.34	0.47	4.24	2.29	2.90	9.44
Disk Harrow	14'	2WD 130	26,400	180	10	0.140	2.05	1.43	1.02	0.49	5.02	2.09	2.87	9.99
Disk Harrow	20'	MFWD 190	45,000	180	10	0.098	1.44	1.46	1.22	0.59	4.73	2.50	3.62	10.86
Disk Harrow	24'	MFWD 190	46,200	180	10	0.081	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	20'	MFWD 190	45,000	180	10	0.097	1.42	1.45	1.21	0.58	4.69	2.48	3.59	10.76
Disk Heavy	28'	MFWD 225	56,000	180	10	0.075	1.11	1.34	1.17	0.55	4.18	2.40	3.35	9.94
Disk Ripper	15'	MFWD 225	50,800	180	10	0.136	1.99	2.41	1.92	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	MFWD 190	18,600	150	8	0.098	1.88	1.46	1.21	0.59	5.16	1.32	3.62	10.12
Fert Appl (Liquid)	8R-38	MFWD 190	20,600	150	8	0.077	1.49	1.16	1.06	0.47	4.19	1.16	2.86	8.22
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	21,000	150	8	0.051	0.99	0.77	0.72	0.31	2.80	0.78	1.91	5.50
Fert Appl (Liquid)	12R-30	MFWD 225	24,700	150	8	0.078	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	12'	2WD 150	19,600	100	10	0.132	2.53	1.56	0.64	0.45	5.20	2.64	2.66	10.51
Field Cultivate Fld	24'	MFWD 170	31,100	100	10	0.062	0.91	0.83	0.48	0.31	2.54	1.97	1.89	6.41
Field Cultivate Fld	32'	MFWD 190	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	1000 bu	MFWD 225	57,900	200	12	0.025	0.37	0.44	0.39	0.18	1.40	0.66	1.12	3.18
Grain Cart Rice	500 bu	MFWD 190	27,300	200	12	0.062	0.91	0.93	0.46	0.37	2.69	0.77	2.30	5.77
Grain Cart Rice	700 bu	MFWD 190	44,000	200	12	0.055	0.80	0.82	0.65	0.33	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	12	0.021	0.31	0.31	0.25	0.12	1.01	0.42	0.78	2.21
Grain Cart Soybean	1000 bu	MFWD 190	57,900	200	12	0.021	0.31	0.31	0.33	0.12	1.09	0.55	0.78	2.43
Grain Cart Wht/Sor	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 Wht/Sor	700 bu	MFWD 190	44,000	200	12	0.021	0.31	0.31	0.25	0.12	1.01	0.42	0.78	2.21
Grain Cart Wht/Sor	1000 bu	MFWD 190	57,900	200	12	0.021	0.31	0.31	0.33	0.12	1.09	0.55	0.78	2.43
Grain Drill	10'	2WD 130	28,000	150	8	0.188	4.47	1.93	1.97	0.66	9.05	3.64	3.86	16.57
Grain Drill	12'	2WD 130	28,100	150	8	0.157	3.73	1.60	1.65	0.55	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	8	0.094	2.23	1.26	1.46	0.47	5.43	2.69	2.87	11.00
Grain Drill	24'	MFWD 190	66,800	150	8	0.078	1.86	1.17	1.96	0.47	5.48	3.62	2.90	12.01
Grain Drill	30'	MFWD 225	68,500	150	8	0.062	1.49	1.11	1.61	0.45	4.67	2.97	2.79	10.44
Grain Drill	35'	MFWD 225	91,900	150	8	0.053	1.27	0.95	1.85	0.39	4.48	3.42	2.39	10.29
Grain Drill & Pre	10'	2WD 130	35,400	150	8	0.203	4.82	2.07	2.69	0.71	10.31	4.96	4.16	19.44
Grain Drill & Pre	12'	2WD 130	35,400	150	8	0.169	4.01	1.73	2.24	0.59	8.59	4.13	3.47	16.20
Grain Drill & Pre	15'	MFWD 150	41,200	150	8	0.135	3.21	1.59	2.09	0.60	7.50	3.85	3.51	14.87
Grain Drill & Pre	20'	MFWD 170	48,800	150	8	0.101	2.41	1.35	1.85	0.50	6.13	3.42	3.09	12.65
Grain Drill & Pre	24'	MFWD 190	74,200	150	8	0.084	2.00	1.26	2.35	0.51	6.14	4.33	3.12	13.60
Grain Drill & Pre	30'	MFWD 225	75,800	150	8	0.067	1.60	1.19	1.92	0.49	5.22	3.54	3.00	11.77
Grain Drill & Pre	35'	MFWD 225	101,000	150	8	0.058	1.37	1.02	2.19	0.42	5.02	4.04	2.57	11.64
Grain Drill & Pre T	8R-38	MFWD 225	59,000	150	8	0.062	1.49	1.11	1.39	0.45	4.45	2.56	2.79	9.80
Harrow - Folding	24'	MFWD 190	13,800	200	10	0.064	0.94	0.96	0.31	0.39	2.62	0.45	2.39	5.46
Harrow - Folding	30'	MFWD 190	15,300	200	10	0.051	0.75	0.77	0.27	0.31	2.12	0.40	1.91	4.44
Harrow - Folding	40'	MFWD 190	21,300	200	10	0.038	0.56	0.58	0.28	0.23	1.67	0.42	1.43	3.53
Harrow - Folding	48'	MFWD 225	26,000	200	10	0.032	0.47	0.57	0.29	0.23	1.57	0.42	1.43	3.44
Header - Corn	6R-30	265 hp	51,400	300	8	0.170	2.49	3.55	2.18	6.93	15.17	3.17	26.54	44.90
Header - Corn	6R-38	265 hp	52,300	300	8	0.134	1.97	2.80	1.75	5.47	12.01	2.55	20.95	35.52
Header - Corn	8R-30	265 hp	66,800	300	8	0.127	1.87	2.66	2.13	5.20	11.87	3.09	19.91	34.88

(continued)

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---		Total		--Fixed--		Total Cost
									Imp.	P.U.	Direct	Imp.	P.U.		
			dollars	hours	years	hr/ac	-----\$/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	13.65	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	9.31	3.46	13.41	26.19	
Header - Draper (CL)	25' Rigid	265 hp	61,400	300	8	0.203	2.98	4.23	2.85	8.27	18.34	4.30	31.66	54.31	
Header - Draper (CL)	30' Rigid	325 hp	73,700	300	8	0.169	2.48	4.33	2.85	6.96	16.63	4.30	26.65	47.60	
Header - Draper (CL)	36' Rigid	355 hp	77,300	300	8	0.141	2.07	3.94	2.49	5.89	14.40	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	14.28	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	16.80	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	14.41	3.73	23.10	41.25	
Header - Draper (SL)	36' Rigid	355 hp	77,300	300	8	0.122	1.79	3.41	2.16	5.10	12.48	3.26	19.54	35.28	
Header - Draper (SL)	40' Rigid	425 hp	82,700	300	8	0.110	1.61	3.68	2.08	4.99	12.37	3.14	19.12	34.64	
Header -RiceStrp(CL)	20'	265 hp	50,600	300	8	0.253	3.72	5.29	3.21	10.33	22.57	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	15.32	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	19.56	4.04	34.30	57.90	
Header -RiceStrp(SL)	24'	325 hp	54,000	300	8	0.183	2.69	4.69	2.47	7.54	17.40	3.59	28.87	49.87	
Header -RiceStrp(SL)	32'	325 hp	60,800	300	8	0.137	2.01	3.51	2.09	5.65	13.28	3.03	21.65	37.97	
Header -Soybean	22' Flex	265 hp	33,700	300	8	0.116	1.70	2.42	0.97	4.72	9.83	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	9.24	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	7.86	1.35	13.41	22.62	
Header -Soybean	35' Flex	355 hp	50,100	300	8	0.072	1.07	2.04	0.91	3.04	7.07	1.32	11.66	20.07	
Header Wheat/Sorghum	22' Rigid	265 hp	19,800	300	8	0.116	1.70	2.42	0.57	4.72	9.43	0.83	18.10	28.36	
Header Wheat/Sorghum	25' Rigid	325 hp	25,400	300	8	0.102	1.49	2.61	0.64	4.20	8.96	0.94	16.09	26.00	
Header Wheat/Sorghum	30' Rigid	325 hp	29,100	300	8	0.085	1.24	2.17	0.61	3.50	7.55	0.89	13.41	21.86	
Land Plane	50'x16'	MFWD 190	9,700	200	10	0.151	2.22	2.26	0.29	0.91	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	0.12	0.03	0.10	0.26	
Levee Pull (1m/80a)	8 blade	MFWD 170	8,270	100	10	0.003	0.05	0.04	0.00	0.01	0.12	0.03	0.10	0.26	
Levee Splitter (1/80	32"	MFWD 150	8,270	100	10	0.004	0.06	0.04	0.00	0.01	0.13	0.03	0.10	0.27	
Module Builder	4R-38(250)	MFWD 190	34,700	200	10	0.257	6.11	3.85	2.23	1.56	13.77	4.37	9.52	27.68	
Module Builder	4R-38(350)	MFWD 190	34,700	200	10	0.257	6.11	3.85	2.23	1.56	13.77	4.37	9.52	27.68	
Module Builder	4R2x1(350)	MFWD 190	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)	MFWD 190	34,700	200	10	0.218	5.18	3.26	1.89	1.32	11.66	3.70	8.06	23.43	
Module Builder	6R-38(355)	MFWD 190	34,700	200	10	0.172	4.09	2.57	1.49	1.04	9.20	2.92	6.36	18.50	
NT Grain Drill	10'	2WD 130	34,400	150	8	0.235	5.59	2.41	3.04	0.83	11.88	5.60	4.83	22.32	
NT Grain Drill	12'	2WD 130	46,600	150	8	0.163	3.88	1.67	2.86	0.57	9.00	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	7.99	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	6.61	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	6.67	5.54	3.02	15.23	
NT Grain Drill	30'	MFWD 225	104,300	150	8	0.065	1.55	1.16	2.56	0.47	5.75	4.71	2.90	13.37	
NT Grain Drill & Pre	10'	2WD 130	41,800	150	8	0.211	5.02	2.16	3.31	0.74	11.25	6.10	4.34	21.70	
NT Grain Drill & Pre	12'	2WD 130	54,000	150	8	0.176	4.18	1.80	3.56	0.62	10.18	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	8.99	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	7.41	5.45	3.22	16.10	
NT Grain Drill & Pre	24'	MFWD 190	105,000	150	8	0.088	2.09	1.31	3.47	0.53	7.41	6.39	3.25	17.06	
NT Grain Drill & Pre	30'	MFWD 225	112,000	150	8	0.070	1.67	1.24	2.96	0.51	6.39	5.45	3.12	14.98	
NT Plant&Pre-Folding	8R-38	MFWD 170	67,700	150	8	0.083	1.98	1.11	2.12	0.41	5.64	3.91	2.54	12.10	
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	103,000	150	8	0.055	1.32	0.74	2.15	0.27	4.49	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	
NT Plant&Pre-Folding	12R-30	MFWD 190	91,000	150	8	0.070	1.67	1.05	2.40	0.42	5.56	4.43	2.60	12.60	
NT Plant&Pre-Folding	12R-38	MFWD 190	103,000	150	8	0.055	1.32	0.83	2.15	0.33	4.64	3.96	2.05	10.66	
NT Plant&Pre-Folding	16R-30	MFWD 190	137,000	150	8	0.052	1.25	0.79	2.71	0.32	5.08	5.00	1.95	12.04	
NT Plant&Pre-Folding	23R-15	MFWD 190	186,000	150	8	0.073	1.74	1.09	5.12	0.44	8.41	9.43	2.71	20.56	
NT Plant&Pre-Folding	24R-20	MFWD 190	207,000	150	8	0.052	1.25	0.79	4.10	0.32	6.47	7.56	1.95	15.98	
NT Plant&Pre-Folding	24R-30	MFWD 190	217,000	150	8	0.035	0.83	0.52	2.86	0.21	4.44	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	7.21	8.38	2.42	18.02	
NT Plant&Pre-Folding	32R-15	MFWD 225	216,200	150	8	0.052	1.25	0.93	4.28	0.38	6.86	7.89	2.34	17.11	
NT Plant&Pre-Rigid	4R-30	2WD 130	34,600	150	8	0.211	5.02	2.16	2.74	0.74	10.67	5.05	4.34	20.07	
NT Plant&Pre-Rigid	4R-38	2WD 130	36,000	150	8	0.166	3.95	1.70	2.24	0.58	8.49	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	7.98	4.31	3.66	15.96	
NT Plant&Pre-Rigid	6R-38	MFWD 150	43,500	150	8	0.111	2.64	1.31	1.81	0.49	6.27	3.34	2.89	12.51	
NT Plant&Pre-Rigid	8R-30	MFWD 170	54,500	150	8	0.105	2.51	1.41	2.16	0.52	6.61	3.98	3.22	13.82	
NT Plant&Pre-Rigid	8R-38	MFWD 170	52,400	150	8	0.083	1.98	1.11	1.64	0.41	5.16	3.02	2.54	10.74	
NT Plant&Pre-Rigid	11R-15	MFWD 170	63,900	150	8	0.143	3.41	1.92	3.44	0.71	9.51	6.35	4.38	20.24	
NT Plant&Pre-Rigid	11R-20	MFWD 170	63,200	150	8	0.115	2.74	1.54	2.73	0.57	7.60	5.04	3.52	16.17	
NT Plant&Pre-Rigid	12R-20	MFWD 190	65,700	150	8	0.105	2.51	1.58	2.60	0.64	7.34	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	8.54	6.40	4.18	19.13	
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	170,000	150	8	0.055	1.32	0.98	3.54	0.40	6.26	6.53	2.47	15.27	
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	135,000	150	8	0.083	1.98	1.48	4.23	0.60	8.30	7.79	3.71	19.81	
NT Plant-Folding	8R-38	MFWD 170	60,400	150	8	0.077	1.84	1.03	1.75	0.38	5.02	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	3.98	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	7.16	5.10	3.62	15.89	
NT Plant-Folding	12R-30	MFWD 190	81,700	150	8	0.065	1.55	0.97	2.00	0.39	4.93	3.69	2.41	11.05	
NT Plant-Folding	12R-38	MFWD 190	93,400	150	8	0.051	1.22	0.77	1.81	0.31	4.12	3.33	1.91	9.37	
NT Plant-Folding	16R-30	MFWD 190	128,000	150	8	0.049	1.16	0.73	2.35	0.29	4.55	4.34	1.81	10.71	
NT Plant-Folding	23R-15	MFWD 190	176,000	150	8	0.068	1.61	1.02	4.50	0.41	7.55	8.29	2.52	18.36	
NT Plant-Folding	24R-20	MFWD 190	197,000	150	8	0.049	1.16	0.73	3.62	0.29	5.82	6.68	1.81	14.32	
NT Plant-Folding	24R-30	MFWD 190	204,000	150	8	0.032	0.77	0.48	2.50	0.19	3.97	4.61	1.20	9.79	
NT Plant-Folding	31R-15	MFWD 225	213,000	150	8	0.050	1.20	0.89	4.05	0.36	6.52	7.46	2.25	16.25	

(continued)

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---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			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	150	8	0.154	3.67	1.58	1.65	0.54	7.46	3.05	3.17	13.69
NT Plant-Rigid	6R-30	MFWD 150	37,000	150	8	0.130	3.10	1.54	1.81	0.58	7.05	3.34	3.40	13.80
NT Plant-Rigid	6R-38	MFWD 150	36,100	150	8	0.103	2.45	1.22	1.39	0.46	5.53	2.57	2.68	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	MFWD 170	55,800	150	8	0.107	2.54	1.43	2.24	0.53	6.76	4.13	3.27	14.17
NT Plant-Rigid	12R-20	MFWD 190	58,400	150	8	0.098	2.33	1.46	2.15	0.59	6.54	3.96	3.62	14.13
NT Plant-Rigid	12R-30	MFWD 190	73,500	150	8	0.065	1.55	0.97	1.80	0.39	4.73	3.32	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	6-Row	MFWD 190	14,800	300	20	0.100	1.46	1.49	0.24	0.60	3.81	0.34	3.69	7.86
Peanut Conditioner	6-Row	MFWD 190	17,500	300	20	0.100	1.46	1.49	0.35	0.60	3.92	0.35	3.69	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	3.88	11.45	27.41
Peanut Harvester	4R-30	MFWD 225	155,000	300	20	0.849	12.47	15.06	7.46	6.18	41.19	26.76	37.72	105.68
Peanut Harvester	4R-38	MFWD 225	155,000	300	20	0.934	13.71	16.56	8.20	6.80	45.29	30.96	41.48	117.73
Peanut Harvester	6R-38	MFWD 225	172,000	300	20	0.625	9.17	11.07	5.19	4.55	29.99	22.97	27.74	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	8R-38	MFWD 190	45,700	150	8	0.120	2.86	1.80	2.06	0.73	7.47	3.81	4.46	15.75
Peanut Ptl&PreTwin	8R-30/40	MFWD 190	129,000	150	8	0.120	2.86	1.80	5.84	0.73	11.24	10.76	4.46	26.47
Pipe Spool 160ac	1/4m roll	2WD 130	5,400	15	12	0.003	0.10	0.03	0.00	0.01	0.15	0.10	0.06	0.32
Pipe Trailer 1m/160a	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	12R-20	MFWD 190	72,600	150	8	0.101	2.41	1.51	2.76	0.61	7.30	5.09	3.75	16.15
Plant & Pre-Folding	12R-30	MFWD 190	81,000	150	8	0.067	1.60	1.01	2.05	0.41	5.08	3.78	2.50	11.37
Plant & Pre-Folding	12R-38	MFWD 190	92,700	150	8	0.053	1.26	0.79	1.85	0.32	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	24R-30	MFWD 190	197,000	150	8	0.033	0.80	0.50	2.50	0.20	4.01	4.60	1.25	9.87
Plant & Pre-Folding	31R-15	MFWD 225	196,000	150	8	0.052	1.24	0.92	3.85	0.38	6.41	7.10	2.32	15.84
Plant & Pre-Folding	32R-15	MFWD 225	189,000	150	8	0.050	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	6R-30	MFWD 150	39,300	150	8	0.135	3.21	1.59	1.99	0.60	7.41	3.67	3.51	14.60
Plant & Pre-Rigid	6R-38	MFWD 150	38,500	150	8	0.106	2.53	1.26	1.54	0.47	5.82	2.84	2.77	11.43
Plant & Pre-Rigid	8R-30	MFWD 170	47,800	150	8	0.101	2.41	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	12R-20	MFWD 190	55,700	150	8	0.101	2.41	1.51	2.12	0.61	6.66	3.90	3.75	14.32
Plant & Pre-Rigid	12R-30	MFWD 190	72,700	150	8	0.067	1.60	1.01	1.84	0.41	4.87	3.39	2.50	10.77
Plant & Pre-Rigid	15R-15	MFWD 190	69,500	150	8	0.108	2.57	1.62	2.83	0.65	7.69	5.21	4.01	16.92
Plant & Pre-TwinRow	12R-30/40	MFWD 225	160,000	150	8	0.053	1.26	0.94	3.20	0.38	5.81	5.90	2.37	14.09
Plant & Pre-TwinRow	8R-30/40	MFWD 225	129,000	150	8	0.080	1.90	1.42	3.88	0.58	7.79	7.15	3.56	18.51
Plant - Folding	8R-38	MFWD 170	53,700	150	8	0.074	1.76	0.99	1.50	0.37	4.64	2.76	2.27	9.67
Plant - Folding	8R-38 2x1	MFWD 170	83,400	150	8	0.049	1.17	0.66	1.55	0.24	3.64	2.85	1.51	8.01
Plant - Folding	12R-20	MFWD 190	65,200	150	8	0.094	2.23	1.41	2.30	0.57	6.52	4.24	3.48	14.25
Plant - Folding	12R-30	MFWD 190	71,700	150	8	0.062	1.49	0.94	1.69	0.38	4.50	3.11	2.32	9.94
Plant - Folding	12R-38	MFWD 190	83,400	150	8	0.049	1.17	0.74	1.55	0.30	3.77	2.85	1.83	8.46
Plant - Folding	16R-30	MFWD 190	114,000	150	8	0.047	1.11	0.70	2.01	0.28	4.12	3.71	1.74	9.58
Plant - Folding	23R-15	MFWD 190	157,000	150	8	0.065	1.55	0.97	3.85	0.39	6.78	7.10	2.41	16.30
Plant - Folding	24R-20	MFWD 190	177,000	150	8	0.047	1.11	0.70	3.12	0.28	5.23	5.76	1.74	12.74
Plant - Folding	24R-30	MFWD 190	184,000	150	8	0.031	0.74	0.47	2.16	0.19	3.57	3.99	1.16	8.73
Plant - Folding	31R-15	MFWD 225	187,000	150	8	0.048	1.15	0.86	3.41	0.35	5.79	6.29	2.16	14.25
Plant - Folding	32R-15	MFWD 225	180,000	150	8	0.047	1.11	0.83	3.18	0.34	5.47	5.86	2.09	13.43
Plant - Rigid	4R-30	2WD 130	24,200	150	8	0.188	4.47	1.93	1.71	0.66	8.78	3.15	3.86	15.80
Plant - Rigid	4R-38	2WD 130	25,300	150	8	0.148	3.52	1.52	1.40	0.52	6.97	2.59	3.04	12.62
Plant - Rigid	6R-30	MFWD 150	32,000	150	8	0.125	2.98	1.48	1.50	0.56	6.53	2.77	3.26	12.58
Plant - Rigid	6R-38	MFWD 150	31,100	150	8	0.099	2.35	1.17	1.15	0.44	5.12	2.13	2.57	9.83
Plant - Rigid	8R-30	MFWD 170	40,500	150	8	0.094	2.23	1.26	1.43	0.47	5.40	2.63	2.87	10.91
Plant - Rigid	8R-38	MFWD 170	38,400	150	8	0.074	1.76	0.99	1.07	0.37	4.21	1.97	2.27	8.46
Plant - Rigid	11R-15	MFWD 170	47,300	150	8	0.137	3.26	1.84	2.44	0.68	8.23	4.49	4.19	16.93
Plant - Rigid	11R-20	MFWD 170	46,600	150	8	0.103	2.44	1.37	1.80	0.51	6.14	3.31	3.14	12.59
Plant - Rigid	12R-20	MFWD 190	48,300	150	8	0.094	2.23	1.41	1.70	0.57	5.92	3.14	3.48	12.55
Plant - Rigid	12R-30	MFWD 190	63,400	150	8	0.062	1.49	0.94	1.49	0.38	4.30	2.75	2.32	9.38
Plant - Rigid	15R-15	2WD 150	60,200	150	8	0.094	2.23	1.11	2.12	0.32	5.80	3.92	1.90	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	3.30	16.55

(continued)

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---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			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'	MFWD 225	22,200	300	12	0.046	0.68	0.82	0.24	0.33	2.09	0.32	2.07	4.48
Rotary Cutter	7'	MFWD 130	4,500	185	10	0.168	2.47	1.72	0.61	0.66	5.47	0.41	3.85	9.74
Rotary Cutter	12'	2WD 150	13,100	185	10	0.098	1.44	1.16	1.04	0.34	3.98	0.70	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'	MFWD 225	21,100	100	10	0.059	0.87	1.05	0.31	0.43	2.68	1.28	2.65	6.62
Row Cond Folding	38'	MFWD 225	27,800	100	10	0.040	0.59	0.72	0.28	0.29	1.90	1.15	1.81	4.87
Row Cond Rigid	13'	2WD 130	8,670	100	10	0.119	1.75	1.22	0.25	0.42	3.65	1.05	2.45	7.16
Row Cond Rigid	21'	2WD 170	14,200	100	10	0.073	1.08	0.99	0.26	0.27	2.61	1.07	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"	800 CC	720	200	8	0.260	5.00	0.34	0.08	0.49	5.92	0.10	1.89	7.93
Spray (ATV)	20'	800 CC	1,690	200	8	0.084	1.62	0.11	0.06	0.16	1.96	0.07	0.61	2.66
Spray (Band)	27' Fold	MFWD 170	7,400	200	8	0.062	1.20	0.83	0.21	0.31	2.57	0.25	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	MFWD 170	18,900	200	8	0.056	1.08	0.75	0.49	0.28	2.62	0.58	1.71	4.92
Spray (Bcast/HB)	40' Fold	MFWD 170	19,100	200	8	0.042	0.81	0.56	0.37	0.21	1.96	0.44	1.28	3.69
Spray (Broadcast)	27'	MFWD 170	7,400	200	8	0.062	1.20	0.83	0.21	0.31	2.57	0.25	1.91	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)	8R-30	MFWD 170	15,500	200	8	0.084	1.62	1.13	0.61	0.42	3.79	0.71	2.57	7.09
Spray (Direct/Layby)	8R-38	MFWD 170	15,500	200	8	0.066	1.28	0.89	0.48	0.33	3.00	0.56	2.03	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	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'	MFWD 225	52,900	200	8	0.018	0.36	0.33	0.46	0.13	1.29	0.54	0.83	2.67
Spray (Pull Type)	120'	MFWD 225	80,900	200	8	0.014	0.27	0.24	0.53	0.10	1.15	0.62	0.62	2.40
Spray (Ropewick)	20'	MFWD 190	4,100	200	8	0.084	1.62	1.26	0.16	0.51	3.56	0.18	3.12	6.88
Spray (Spot)	27'	MFWD 170	7,400	200	8	0.062	1.20	0.83	0.21	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	4.94	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	18'	MFWD 150	28,900	200	10	0.091	1.34	1.08	2.31	0.40	5.15	1.35	2.38	8.88
Stalk Shredder-Flail	20'	MFWD 150	30,400	200	10	0.082	1.21	0.97	2.19	0.36	4.74	1.27	2.14	8.17
Stalk Shredder-Flail	25'	MFWD 150	46,400	200	10	0.066	0.96	0.77	2.67	0.29	4.72	1.56	1.71	7.99
Strip Till	8R-38	MFWD 225	28,100	150	10	0.061	0.90	1.09	0.75	0.44	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	7.72	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	4.71	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

Notes:

Labor: Includes labor from Power unit plus additional labor from the implement.

Total Direct: Does not include interest on operating capital.

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2021

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Apron Maxx RTA	oz	1.69
Agri-Dex	pt	2.42	Artisan	oz	0.23
AMS SuperMax	pt	3.81	Avaris	oz	0.35
Class Act NG	pt	1.75	Avicta Complete Bean	oz	3.91
Crop Oil Conc. (Pet.)	pt	2.86	Bravo Weather Stick	pt	5.30
Crop Oil Conc. (Veg.)	pt	2.90	Captan 50 WP	lb	5.94
Dyne-A-Pak	pt	5.16	Convoy	oz	0.95
Fire-Zone	pt	3.40	Cotton Seed Trt.	acre	20.00
Herbimax	pt	3.99	CruiserMaxx Vibrance	oz	4.75
Induce	pt	3.48	Elatus	oz	2.94
MSO	pt	2.40	Flint Extra	oz	8.88
Penetrator Plus	pt	2.90	Headline EC	oz	1.83
Surfactant	pt	3.30	Miravis Top	oz	1.44
CLEANING			Prior Xemium	oz	4.53
Cleaning Peanuts	ton	18.00	Propimax EC	pt	11.10
CROP CONSULTANT			Prosaro	oz	2.42
Corn Consultant	acre	6.00	Provost Optimum	oz	2.43
Cotton Consultant	acre	8.00	Quadris	oz	1.50
Peanut Consultant	acre	9.25	Quadris Top	oz	2.37
Rice Consultant	acre	8.00	Quadris Top SBX	oz	1.99
Sorghum Consultant	acre	6.00	Quilt	pt	16.63
Soybeans Consultant	acre	6.50	Quilt XCEL	pt	19.82
Wheat Consultant	acre	5.50	Stratego	pt	21.97
CUSTOM FERTILIZE			Stratego YLD	oz	3.46
App Fert by Air	cwt	7.50	Tilt 3.6 EC	oz	0.76
App Fert by Air (Mi)	appl	7.50	Tilt/ Bravo SE	oz	0.76
Custom Apply Fert	acre	7.50	Trivapro	oz	1.53
CUSTOM LIME			GINNING		
Lime (Spread)	ton	47.45	Gin & Haul	lb	0.11
CUSTOM PLANT			GROWTH REGULATORS		
Custom Plant	acre	7.50	Mepex	oz	0.06
Custom Plant Air	cwt	7.50	Mepichlor 4.2%	oz	0.06
CUSTOM SPRAY			Mepiquat	oz	0.06
App by Air ( 3 gal)	appl	5.50	Mepstar 6	oz	0.08
App by Air ( 5 gal)	appl	7.00	Palisade	oz	1.13
App by Air (10 gal)	appl	9.00	Pentia	oz	0.45
Custom Spray Ground	acre	7.00	Pix WSB	oz	1.37
DRYING			Stance	oz	1.24
Dry Corn	bu	0.19	Veto	oz	0.06
Dry Grain Sorghum	cwt	0.25	HARVEST AIDS		
Dry Peanuts	ton	24.00	Adios	oz	0.99
Dry Rice	bu	0.40	Boll Buster	oz	0.24
ERADICATION FEE			Def/Folex	pt	10.21
Eradication	acre	1.00	Defol 5	gal	6.77
FERTILIZERS			Display	oz	9.63
Agrotain Ultra	pt	11.30	Ethephon 6E	pt	4.00
Amm Sulfate (21% N)	cwt	18.66	Finish 6	pt	8.00
Boron Plus	pt	2.56	Folex 6EC	pt	10.21
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	6.77
Lime	ton	37.45	SuperBoll	oz	0.27
NBPT	pt	11.06	Thidiazuron 4lb	oz	1.49
Phosphorus (46% P2O5)	cwt	17.31	Tribufos 6lb	pt	10.21
Potash (60% K2O)	cwt	22.11	Vacate	oz	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%)	cwt	14.49	Haul Rice	bu	0.35
UAN + Sulfur (28%)	gal	1.61	Haul Sorghum	bu	0.25
Urea, Solid (46% N)	cwt	19.74	Haul Soybeans	bu	0.27
Zinc Plus	pt	2.99	Haul Wheat	bu	0.26
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	oz	5.27	AAtrex 4L	pt	2.23
Ameristar Top	oz	2.51	Accent Q	oz	19.09
Approach Prima	pt	28.11	Acuron	oz	0.53

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2021 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Aim	oz	5.67	Harmony Extra SG	oz	11.06
Anthem Flex	oz	2.67	Helmet	oz	0.26
Anthem Maxx	oz	4.94	Huskie	oz	0.78
Armezon Pro	oz	1.22	Impact	oz	17.60
Atrazine 4L	pt	1.91	Intimidator	oz	0.59
Atrazine 90DF	lb	3.59	Leadoff	oz	5.61
Authority First	lb	73.87	League	oz	3.83
Authority Elite	pt	16.43	Lexar	pt	7.55
Authority Maxx	lb	58.84	Liberty 280	oz	0.44
Authority MTZ	lb	43.24	Loyant	oz	2.21
Avatar	pt	8.50	Makaze	oz	0.14
Avenger	pt	4.52	Metolachlor	pt	5.59
Axial XL	oz	1.15	Metribuzin 4L	pt	9.04
Axiom	oz	1.94	Metribuzin 75	lb	18.30
Banvel	pt	6.67	MSMA	pt	3.86
Barrage	pt	4.15	Newpath	oz	3.83
Basagran	pt	5.43	Obey	oz	0.98
Boundary	pt	11.07	Osprey	oz	3.50
Brake	oz	1.46	Outlook	pt	17.66
Broadaxe	pt	16.31	Panther Pro	oz	1.60
Broadhead	lb	58.21	Parallel	pt	5.65
Bucaneer Plus	pt	2.90	Paraquat	oz	0.18
Buctril	pt	4.28	Parazone 3SL	oz	0.18
Butyrac 200 (2,4-DB)	pt	3.64	Permit	oz	21.99
Cadre	oz	2.90	Permit Plus	oz	21.18
Canopy	oz	2.32	PowerFlex	oz	6.99
Caparol	pt	4.67	Preface	oz	4.05
Capreno	oz	4.93	Prefix	pt	6.64
Cinch	pt	14.18	Provisia	oz	0.85
Cinch ATZ	pt	5.20	Prowl 3.3 EC	pt	6.49
Clarity	pt	10.73	Quelex	oz	7.85
Classic	oz	16.86	RealmQ	oz	5.08
Clearpath	lb	60.12	RebelEx	oz	2.13
Clethodim 2E	oz	0.50	Reflex	pt	6.20
Clincher SF	oz	2.26	Regiment	oz	43.56
Cobra	oz	1.70	Resicore	oz	0.48
Command 3ME	pt	18.17	Resource	oz	1.82
Corvus	oz	6.48	RiceBeaux	pt	5.95
Cotoran	pt	6.01	Riceshot	pt	4.69
Cotton Pro	pt	3.45	Ricestar HT	pt	24.49
Dicamba	pt	5.50	Ringside	pt	4.88
Direx	pt	3.02	Roundup Power Max	oz	0.20
Diuron	pt	3.03	Roundup PowerMax	pt	3.25
Dual II Magnum	pt	13.98	Roundup PowerMax ii	oz	0.19
Dual Magnum	pt	13.33	Roundup Pro	pt	0.20
Duet	pt	5.63	Scepter 70 DG	oz	4.82
Engenia	oz	0.89	Select Max	pt	12.74
Envive	oz	4.76	Sencor/Tricor.Metrib	lb	19.00
Envoke	oz	0.80	Sequence	pt	5.45
Facet L	pt	14.57	Sharpen	oz	6.04
Fierce	oz	7.40	Sinister	pt	14.96
Fierce XLT	oz	6.64	Sonic	oz	5.48
Finesse	oz	15.79	Stalwart	pt	3.95
Firestorm	pt	3.44	Stam 80 EDF	lb	9.45
First Rate	oz	42.57	Stam M4	qt	7.72
Flexstar	pt	8.33	Staple LX	oz	0.74
Flexstar GT	pt	4.66	Storm	pt	11.91
Fusilade DX	oz	1.15	Strada	oz	7.34
Gambit	oz	16.32	Strada Pro	oz	7.70
Glyphosate 3lbs a.e	pt	2.11	Strada XT2	pt	3.20
Glyphosate 3lbs a.e	oz	0.13	Superwham	qt	8.61
Goal 2XL	pt	7.52	Suprend	lb	13.52
Gramoxone SL 2.0	oz	0.19	SureStart II	oz	0.56
Grandstand R	pt	15.39	Surveil	oz	6.32
Grasp	oz	12.07	Synchrony XP	oz	11.99
Grasp Xtra	oz	1.58	Tempest	pt	29.82
Halex GT	pt	7.13	Touchdown Total	qt	10.21
Halomax	oz	19.93	Treflan	pt	3.49

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2021 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Trifluralin	pt	3.68	Malathion 8E	pt	10.56
Triflurex	pt	3.30	Mustang Max	oz	1.10
Ultra Blazer	pt	8.58	Nuprid 4F	oz	0.88
Valor EZ	oz	5.04	Oberon	oz	3.09
Valor SX	oz	4.51	Orthene 90	lb	7.45
Valor XLT	oz	5.28	Permethrin	oz	0.48
Vamos	pt	6.49	Portal XLO	oz	0.74
Verdict	oz	1.73	Pounce 25WP	lb	16.50
Veritas	pt	7.49	Prevathon	oz	1.05
Villain	pt	5.24	Python WDG	oz	14.32
Volunteer	pt	10.63	Radiant	oz	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
INOCULANT			Transform WG	oz	7.35
Inoculant-Soybean	acre	1.55	Up-Cyde	oz	0.44
Optimize LIFT	oz	0.53	Warrior ZT	oz	2.43
INSECTICIDES			Zeal	oz	17.67
Abamectin .15EC	oz	1.89	IRRIGATION SUPPLIES		
Acephate 90%	lb	6.94	Roll-Out Pipe	ft	0.24
Acephate 90SP	lb	6.42	SEED/PLANTS		
Admire Pro	oz	1.80	Corn Seed BtRR	thous	3.99
Agri-Mek	oz	2.72	Corn Seed Conv.	thous	2.76
Asana .66 XL	oz	0.55	Corn Seed Op Leptra	thous	3.66
Avenger	oz	0.28	Corn Seed RR2	thous	3.03
Baythroid XL	oz	2.38	Corn Seed VT2P	thous	3.98
Belt	oz	7.50	Cot. Seed B3XF/W3FE	thous	2.58
Besiege	oz	2.31	Cotton Seed B3XF	thous	2.66
Bidrin 8EC	oz	1.16	Cotton Seed GLB2	thous	2.05
Bifenthrin	oz	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)	lb	1.93
Endigo	oz	1.48	Rice Seed FPH(Levee)	lb	2.67
Force 3G	lb	7.28	Rice Seed Provisia	lb	1.23
Hero	oz	1.30	Rice Seed Trt/Insect	lbseed	0.29
Imidacloprid 4F	oz	1.31	Sorghum Concept	lb	2.64
Imidan 70 WSB	oz	0.89	Sorghum Concept+ Po	lb	3.82
IncidentalPestTrt \$8	acre	8.00	Soybean Enlist E3	lb	1.20
IncidentalPestTrt\$15	acre	15.00	Soybean Seed LL	lb	1.16
IncidentalPestTrt\$22	acre	22.00	Soybean Seed RR2	lb	1.16
IncidentalPestTrt\$30	acre	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		
Karate Z	oz	2.52	Soil Test	acre	10.00
Lambda	oz	0.95	SURVEY & MARK LEVEES		
Lannate LV	pt	9.00	Survey & Mark Levees	acre	4.50
Macho	oz	0.78	Survey & Mark Levees	acre	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	%	4.00
Intermediate-term	%	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	UNALLOCATED LABOR MULTIPLIERS (%)	
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 Contract Month	Futures Contract Price <sup>a</sup>	Basis <sup>b</sup>	Forward Contract Price <sup>c</sup>	Loan Rate <sup>d</sup>	Budget Price <sup>e</sup>
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						0.08 <sup>f</sup>
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

- <sup>a</sup> Average of the daily closing futures contract prices during the first 5 trading days in October 2020 for the stated contract months.
- <sup>b</sup> 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.
- <sup>c</sup> 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.
- <sup>d</sup> 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.
- <sup>e</sup> Price used in MSU Extension Service Planning Budgets.
- <sup>f</sup> Cottonseed price is the average marketing year price over the years 2008-2020.

Appendix Table 8. Estimated costs for field operations, per acre  
 Contour levee rice flood irrigation system  
 80-acre system, 33 ac-in., Delta Area, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			TOTAL
-----dollars-----										
Set Up Engine										
IRRIGATE LABOR	hour				0.45		0.01	0.46	0.46	
Build Outside Levee										
Levee Pull (1m/80a)	8 blade		0.22	0.11	0.24		0.01	0.58	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	3.18	
Butt Levees										
Blade-Box	6'-7'		0.27	0.11	0.29		0.01	0.68	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	2.48	
Tear Down Levees										
Levee Splitter (1/80	32"		0.17	0.08	0.18			0.43	0.92	
Land Forming (\$113)	each							7.62	7.62	
Levee Gates	each							0.65	0.65	
Well & Pump, Flood	each			5.91			0.10	6.01	22.62	
Engine, Rice CL, 75	each							17.20	17.20	
May Irrigation	ac-in		7.48	1.53			0.18	9.19	9.19	
June Irrigation	ac-in		11.22	2.29			0.23	13.74	13.74	
July Irrigation	ac-in		11.22	2.29			0.18	13.69	13.69	
August Irrigation	ac-in		11.22	2.29			0.14	13.65	13.65	
TOTALS		4.50	42.82	15.12	33.79	0.00	1.47	97.70	46.79	144.49

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

Appendix Table 9. Estimated costs for field operations, per acre  
 Straight levee rice flood irrigation system  
 80-acre system, 27 ac-in., Delta Area, Mississippi, 2021

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----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
Butt Levees										
Blade-Box	6'-7'		0.27	0.11	0.29			0.01	0.68	0.62
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)	32"		0.33	0.16	0.37			0.01	0.87	0.97
Land Forming (\$450)	each								30.35	30.35
Levee Gates	each								0.65	0.65
Well & Pump, Flood	each			5.91				0.10	6.01	16.61
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

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

Appendix Table 10. 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/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----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	
Butt Levees										
Blade-Box	6'-7'		0.27	0.11	0.29		0.01	0.68	0.62	
IRRIGATE LABOR	hour				0.68		0.01	0.69	0.69	
Ditcher (1m/160a)			0.13	0.07	0.14		0.01	0.35	0.32	
Roll-Out Pipe	ft	7.92					0.16	8.08	8.08	
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll		0.17	0.10	0.41		0.01	0.69	0.79	
Install Gates										
IRRIGATE LABOR	hour				1.36		0.03	1.39	1.39	
Apply Water										
IRRIGATE LABOR	hour				1.81		0.04	1.85	1.85	
Apply Water										
IRRIGATE LABOR	hour				1.81		0.03	1.84	1.84	
Apply Water										
IRRIGATE LABOR	hour				1.81		0.02	1.83	1.83	
Apply Water										
IRRIGATE LABOR	hour				1.81		0.02	1.83	1.83	
Remove Gates										
IRRIGATE LABOR	hour				0.45			0.45	0.45	
Tear Down Levees										
Levee Splitter (1/80)	32"		0.33	0.16	0.37		0.01	0.87	0.97	
Pick Up Pipe										
Pipe Spool 160ac	1/4m roll		0.08	0.05	0.20			0.33	0.39	
Land Forming (\$450)	each							30.35	30.35	
Levee Gates	each							0.32	0.32	
Well & Pump, Flood	each			5.91			0.10	6.01	16.61	
Engine, Mult In Rice	each							17.20	17.20	
May Irrigation	ac-in		6.23	1.75			0.16	8.14	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

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

Appendix Table 11. 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/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----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										
IRRIGATE LABOR	hour				2.27		0.04	2.31	2.31	
Apply Water										
IRRIGATE LABOR	hour				2.27		0.03	2.30	2.30	
Apply Water										
IRRIGATE LABOR	hour				2.27		0.02	2.29	2.29	
Land Forming (\$450)	each							30.35	30.35	
Well & Pump, Flood	each			5.91			0.10	6.01	16.61	
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

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

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