

**RICE
2019
PLANNING BUDGETS**

**Mississippi State University
Department of Agricultural Economics
Budget Report 2018-04**

October 2018

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 2019 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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2019 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. The Mississippi Agricultural Statistics Service conducts a survey of producers of major field crops in Mississippi. Data collected from producers are a part of the information used in selecting the practices included in each budget.

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 survey data from producers and/or 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 2018. (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 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	5.5000	35.75	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.30	75.0000	22.50	_____
Rice Seed Trt/Insect	lbseed	0.23	88.6000	20.38	_____
Rice Seed Cv(Levees)	lb	0.30	13.6000	4.08	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.09	1.5000	3.14	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.4000	0.95	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.5475	7.79	_____
Harvesters	hour	14.23	0.2030	2.89	_____
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	14.25	0.5633	8.03	_____
DIESEL FUEL					
Tractors	gal	2.60	5.9886	15.58	_____
Harvesters	gal	2.60	3.3975	8.83	_____
Flood Irr.	gal	2.60	26.8827	69.89	_____
REPAIR & MAINTENANCE					
Implements	acre	8.70	1.0000	8.70	_____
Tractors	acre	3.10	1.0000	3.10	_____
Harvesters	acre	7.66	1.0000	7.66	_____
Flood Irr.	acre	13.79	1.0000	13.79	_____
INTEREST ON OP. CAP.	acre	15.74	1.0000	15.74	_____
TOTAL DIRECT EXPENSES				747.48	_____
FIXED EXPENSES					
Implements	acre	20.72	1.0000	20.72	_____
Tractors	acre	21.41	1.0000	21.41	_____
Harvesters	acre	32.95	1.0000	32.95	_____
Flood Irr.	acre	49.18	1.0000	49.18	_____
TOTAL FIXED EXPENSES				124.26	_____
TOTAL SPECIFIED EXPENSES				871.74	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 1.B Summary of estimated costs and returns per acre
 Contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	46.96	1.0000	46.96	_____
ADJUVANTS	acre	8.04	1.0000	8.04	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.7506	10.68	_____
RICE MGT. LABOR	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR	hour	14.25	0.5633	8.03	_____
DIESEL FUEL	gal	2.60	36.2688	94.30	_____
REPAIR & MAINTENANCE	acre	33.25	1.0000	33.25	_____
INTEREST ON OP. CAP.	acre	15.74	1.0000	15.74	_____

TOTAL DIRECT EXPENSES				747.48	_____
RETURNS ABOVE DIRECT EXPENSES				-11.48	_____
TOTAL FIXED EXPENSES				124.26	_____

TOTAL SPECIFIED EXPENSES				871.74	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-135.74	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 1.C Estimated resource use for field operations, per acre
 Contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 1.D Estimated costs for field operations, per acre
 Contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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						0.02	3.35	3.35
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Seed Conv.	lb	22.50						0.68	23.18	23.18
Rice Seed Trt/Insect	lbseed	17.25						0.52	17.77	17.77
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
Class Act NG	pt	1.19						0.04	1.23	1.23
MSO	pt	1.05						0.03	1.08	1.08
Seed Levees										
Rice Seed Cv(Levees)	lb	4.08						0.12	4.20	4.20
Rice Seed Trt/Insect	lbseed	3.13						0.09	3.22	3.22
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Regiment	oz	22.45						0.56	23.01	23.01
Dyne-A-Pak	pt	2.40						0.06	2.46	2.46
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
Rice Management										
RICE MGT. LABOR	hour				2.72			0.07	2.79	2.79
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Facet L	pt	41.02						1.03	42.05	42.05
Permit	oz	16.85						0.42	17.27	17.27
Crop Oil Conc.(Pet.)	pt	0.95						0.02	0.97	0.97
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				4.53			0.09	4.62	4.62
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				4.53			0.07	4.60	4.60
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (CL)	25' Rigid		8.83	10.47	5.49			0.25	25.04	62.87
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	56.00						0.56	56.56	56.56
Dry Rice	bu	64.00						0.64	64.64	64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	4.50	72.73	14.52	33.73			2.84	128.32	182.36
TOTALS		536.95	94.30	33.25	67.24	0.00	15.74	747.48	124.26	871.74

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 1.E Estimated monthly income and expense flows per acre
 Contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	46.96	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.35	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	15.96	9.52	11.33	11.33	11.43	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	18.38	19.06	19.06	19.06	10.20	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.80	8.06	2.15	2.15	10.93	3.09
INTEREST ON OP. CAP.	0.57	0.00	0.00	0.00	0.72	0.00	4.11	5.71	1.75	1.27	1.53	0.08
TOTAL DIRECT EXPENSES	10.20	0.00	0.00	0.00	18.74	0.00	140.76	233.74	89.43	85.37	154.09	15.15
NET INCOME	-10.20	0.00	0.00	0.00	-18.74	0.00	-140.76	-233.74	-89.43	-85.37	581.91	-15.15
NET INCOME TO DATE	-10.20	-10.20	-10.20	-10.20	-28.94	-28.94	-169.70	-403.44	-492.87	-578.24	3.67	-11.48

Note: Cost of production estimates are based on 2018 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, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-410 -535	-392 -516	-374 -498	-355 -479	-337 -461	-318 -443	-300 -424	-282 -406	-263 -387	-245 -369	-226 -351
60	96.00	bu	-367 -492	-345 -469	-323 -447	-301 -425	-279 -403	-257 -381	-235 -359	-213 -337	-191 -315	-169 -293	-147 -271
70	112.00	bu	-324 -448	-298 -423	-273 -397	-247 -371	-221 -345	-195 -320	-170 -294	-144 -268	-118 -242	-92 -217	-67 -191
80	128.00	bu	-281 -405	-252 -376	-222 -347	-193 -317	-163 -288	-134 -258	-105 -229	-75 -199	-46 -170	-16 -140	12 -111
90	144.00	bu	-238 -362	-205 -329	-172 -296	-139 -263	-106 -230	-72 -197	-39 -164	-6 -130	26 -97	59 -64	92 -31
100	160.00	bu	-195 -319	-158 -282	-121 -246	-85 -209	-48 -172	-11 -135	25 -98	62 -62	98 -25	135 11	172 48
110	176.00	bu	-152 -276	-111 -236	-71 -195	-30 -155	9 -114	50 -74	90 -33	130 6	171 47	211 87	252 128
120	192.00	bu	-109 -233	-65 -189	-21 -145	23 -101	67 -56	111 -12	155 31	199 75	243 119	288 163	332 208
130	208.00	bu	-66 -190	-18 -142	29 -94	77 -46	125 0	172 48	220 96	268 144	316 192	364 240	412 287
140	224.00	bu	-23 -147	28 -95	79 -44	131 7	182 58	234 110	285 161	337 213	389 264	440 316	492 367
150	240.00	bu	19 -104	75 -49	130 6	185 61	240 116	295 171	351 226	406 282	461 337	516 392	571 447

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 2018 input prices.

Table 2.A Estimated costs per acre
 Straight levee rice
 Flood irrigated, 27 ac-in, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	5.5000	35.75	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.30	75.0000	22.50	_____
Rice Seed Trt/Insect	lbseed	0.23	88.6000	20.38	_____
Rice Seed Cv (Levees)	lb	0.30	13.6000	4.08	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.4000	0.95	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.4999	7.12	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.5719	14.50	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	21.9949	57.20	_____
REPAIR & MAINTENANCE					
Implements	acre	8.26	1.0000	8.26	_____
Tractors	acre	2.89	1.0000	2.89	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	15.13	1.0000	15.13	_____
TOTAL DIRECT EXPENSES				708.90	_____
FIXED EXPENSES					
Implements	acre	19.68	1.0000	19.68	_____
Tractors	acre	19.90	1.0000	19.90	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.81	1.0000	76.81	_____
TOTAL FIXED EXPENSES				144.95	_____
TOTAL SPECIFIED EXPENSES				853.85	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 2.B Summary of estimated costs and returns per acre
 Straight levee rice
 Flood irrigated, 27 ac-in, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	46.96	1.0000	46.96	_____
ADJUVANTS	acre	8.04	1.0000	8.04	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.6759	9.62	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	30.5114	79.36	_____
REPAIR & MAINTENANCE	acre	31.57	1.0000	31.57	_____
INTEREST ON OP. CAP.	acre	15.13	1.0000	15.13	_____

TOTAL DIRECT EXPENSES				708.90	_____
RETURNS ABOVE DIRECT EXPENSES				27.10	_____
TOTAL FIXED EXPENSES				144.95	_____

TOTAL SPECIFIED EXPENSES				853.85	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-117.85	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 2.C Estimated resource use for field operations, per acre
 Straight levee rice
 Flood irrigated, 27 ac-in, Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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	
TOTALS							0.67	0.67	4.07	0.53

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 2.D Estimated costs for field operations, per acre
 Straight levee rice
 Flood irrigated, 27 ac-in, Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Seed Conv.	lb	22.50						0.68	23.18	23.18
Rice Seed Trt/Insect	lbseed	17.25						0.52	17.77	17.77
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed Cv(Levees)	lb	4.08						0.12	4.20	4.20
Rice Seed Trt/Insect	lbseed	3.13						0.09	3.22	3.22
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Regiment	oz	22.45						0.56	23.01	23.01
Dyne-A-Pak	pt	2.40						0.06	2.46	2.46
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Facet L	pt	41.02						1.03	42.05	42.05
Permit	oz	16.85						0.42	17.27	17.27
Crop Oil Conc.(Pet.)	pt	0.95						0.02	0.97	0.97
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	56.00						0.56	56.56	56.56
Dry Rice	bu	64.00						0.64	64.64	64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	2.25	58.96	14.24	22.62			2.23	100.30	180.07
TOTALS		534.70	79.36	31.57	48.14	0.00	15.13	708.90	144.95	853.85

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 2.E Estimated monthly income and expense flows per acre
 Straight levee rice
 Flood irrigated, 27 ac-in, Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	46.96	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.35	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	11.95	5.44	6.34	6.34	10.40	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	17.77	14.83	14.83	14.83	8.56	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.97	7.95	2.04	2.04	9.41	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	3.91	5.49	1.57	1.13	1.48	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	133.86	225.10	79.92	75.90	149.85	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-133.86	-225.10	-79.92	-75.90	586.15	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-166.33	-391.43	-471.35	-547.25	38.90	27.10

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs

Table 2.F Estimated returns for various price/yield combinations, per acre
 Straight levee rice
 Flood irrigated, 27 ac-in, Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-372 -517	-353 -498	-335 -480	-317 -462	-298 -443	-280 -425	-261 -406	-243 -388	-225 -370	-206 -351	-188 -333
60	96.00	bu	-329 -474	-307 -452	-285 -430	-262 -407	-240 -385	-218 -363	-196 -341	-174 -319	-152 -297	-130 -275	-108 -253
70	112.00	bu	-286 -431	-260 -405	-234 -379	-208 -353	-183 -328	-157 -302	-131 -276	-105 -250	-80 -225	-54 -199	-28 -173
80	128.00	bu	-243 -388	-213 -358	-184 -329	-154 -299	-125 -270	-95 -240	-66 -211	-36 -181	-7 -152	21 -123	51 -93
90	144.00	bu	-199 -344	-166 -311	-133 -278	-100 -245	-67 -212	-34 -179	-1 -146	31 -113	64 -79	98 -46	131 -13
100	160.00	bu	-156 -301	-120 -265	-83 -228	-46 -191	-9 -154	27 -117	63 -81	100 -44	137 -7	174 29	211 66
110	176.00	bu	-113 -258	-73 -218	-32 -177	7 -137	48 -96	88 -56	129 -15	169 24	210 65	250 105	290 146
120	192.00	bu	-70 -215	-26 -171	17 -127	61 -83	105 -39	150 5	194 49	238 93	282 137	326 181	370 225
130	208.00	bu	-27 -172	20 -124	68 -76	115 -29	163 18	211 66	259 114	307 162	355 210	402 257	450 305
140	224.00	bu	15 -129	66 -78	118 -26	169 25	221 76	273 128	324 179	376 231	427 282	479 334	530 385
150	240.00	bu	58 -86	113 -31	168 23	224 79	279 134	334 189	389 244	444 299	500 355	555 410	610 465

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 2018 input prices.

Table 3.A Estimated costs per acre
 Straight levee rice
 Multi inlet flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	5.5000	35.75	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.30	75.0000	22.50	_____
Rice Seed Trt/Insect	lbseed	0.23	88.6000	20.38	_____
Rice Seed Cv(Levees)	lb	0.30	13.6000	4.08	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.09	1.5000	3.14	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.5000	1.19	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.5281	7.52	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.8180	15.13	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	18.7364	48.72	_____
REPAIR & MAINTENANCE					
Implements	acre	8.32	1.0000	8.32	_____
Tractors	acre	3.02	1.0000	3.02	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	14.98	1.0000	14.98	_____
TOTAL DIRECT EXPENSES				698.66	_____
FIXED EXPENSES					
Implements	acre	20.19	1.0000	20.19	_____
Tractors	acre	20.80	1.0000	20.80	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.48	1.0000	76.48	_____
TOTAL FIXED EXPENSES				146.03	_____
TOTAL SPECIFIED EXPENSES				844.69	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 3.B Summary of estimated costs and returns per acre
 Straight levee rice
 Multi inlet flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	46.96	1.0000	46.96	_____
ADJUVANTS	acre	8.28	1.0000	8.28	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.7041	10.02	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	27.4990	71.51	_____
REPAIR & MAINTENANCE	acre	31.44	1.0000	31.44	_____
INTEREST ON OP. CAP.	acre	14.98	1.0000	14.98	_____

TOTAL DIRECT EXPENSES				698.66	_____
RETURNS ABOVE DIRECT EXPENSES				37.34	_____
TOTAL FIXED EXPENSES				146.03	_____

TOTAL SPECIFIED EXPENSES				844.69	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-108.69	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 3.C Estimated resource use for field operations, per acre
 Straight levee rice
 Multi inlet flood irrigated, 23 ac-in., Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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	
TOTALS							0.70	0.70	2.89	0.53

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 3.D Estimated costs for field operations, per acre
 Straight levee rice
 Multi inlet flood irrigated, 23 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Seed Conv.	lb	22.50						0.68	23.18	23.18
Rice Seed Trt/Insect	lbseed	17.25						0.52	17.77	17.77
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
Class Act NG	pt	1.19						0.04	1.23	1.23
MSO	pt	1.05						0.03	1.08	1.08
Seed Levees										
Rice Seed Cv(Levees)	lb	4.08						0.12	4.20	4.20
Rice Seed Trt/Insect	lbseed	3.13						0.09	3.22	3.22
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Regiment	oz	22.45						0.56	23.01	23.01
Dyne-A-Pak	pt	2.40						0.06	2.46	2.46
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Facet L	pt	41.02						1.03	42.05	42.05
Permit	oz	16.85						0.42	17.27	17.27
Crop Oil Conc.(Pet.)	pt	1.19						0.03	1.22	1.22
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	56.00						0.56	56.56	56.56
Dry Rice	bu	64.00						0.64	64.64	64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	10.50	51.11	14.11	12.02			2.07	89.81	170.66
TOTALS		543.19	71.51	31.44	37.54	0.00	14.98	698.66	146.03	844.69

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 3.E Estimated monthly income and expense flows per acre
 Straight levee rice
 Multi inlet flood irrigated, 23 ac-in., Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	46.96	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.59	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	9.77	2.72	3.62	3.62	10.14	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	16.14	12.71	12.71	12.71	8.70	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	5.01	7.88	1.97	1.97	9.45	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	4.04	5.39	1.47	1.06	1.47	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	138.47	220.33	74.91	70.92	149.76	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-138.47	-220.33	-74.91	-70.92	586.24	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-170.94	-391.27	-466.18	-537.10	49.14	37.34

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs

Table 3.F Estimated returns for various price/yield combinations, per acre
 Straight levee rice
 Multi inlet flood irrigated, 23 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-362 -508	-343 -489	-325 -471	-306 -452	-288 -434	-270 -416	-251 -397	-233 -379	-214 -360	-196 -342	-178 -324
60	96.00	bu	-318 -465	-296 -442	-274 -420	-252 -398	-230 -376	-208 -354	-186 -332	-164 -310	-142 -288	-120 -266	-98 -244
70	112.00	bu	-275 -421	-250 -396	-224 -370	-198 -344	-172 -318	-147 -293	-121 -267	-95 -241	-69 -215	-44 -190	-18 -164
80	128.00	bu	-232 -378	-203 -349	-173 -319	-144 -290	-115 -261	-85 -231	-56 -202	-26 -172	2 -143	32 -113	61 -84
90	144.00	bu	-189 -335	-156 -302	-123 -269	-90 -236	-57 -203	-24 -170	8 -137	42 -103	75 -70	108 -37	141 -4
100	160.00	bu	-146 -292	-109 -255	-73 -219	-36 -182	0 -145	37 -108	74 -71	110 -35	147 1	184 38	221 75
110	176.00	bu	-103 -249	-63 -209	-22 -168	17 -128	58 -87	98 -47	139 -6	179 33	220 74	260 114	301 155
120	192.00	bu	-60 -206	-16 -162	27 -118	71 -74	116 -29	160 14	204 58	248 102	292 146	336 190	381 235
130	208.00	bu	-17 -163	30 -115	78 -67	126 -19	173 27	221 75	269 123	317 171	365 219	413 267	460 314
140	224.00	bu	25 -120	77 -68	128 -17	180 34	231 85	283 137	334 188	386 240	437 291	489 343	540 394
150	240.00	bu	68 -77	123 -22	179 33	234 88	289 143	344 198	399 253	455 309	510 364	565 419	620 474

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 2018 input prices.

Table 4.A Estimated costs per acre
 Straight levee rice - zero grade
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	5.5000	35.75	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.30	75.0000	22.50	_____
Rice Seed Trt/Insect	lbseed	0.23	75.0000	17.25	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.09	1.5000	3.14	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.5000	1.19	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.4228	6.02	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	4.8970	12.74	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	15.4779	40.24	_____
REPAIR & MAINTENANCE					
Implements	acre	8.16	1.0000	8.16	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.	acre	14.08	1.0000	14.08	_____
TOTAL DIRECT EXPENSES				664.04	_____
FIXED EXPENSES					
Implements	acre	19.19	1.0000	19.19	_____
Tractors	acre	17.43	1.0000	17.43	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.14	1.0000	76.14	_____
TOTAL FIXED EXPENSES				141.32	_____
TOTAL SPECIFIED EXPENSES				805.36	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 4.B Summary of estimated costs and returns per acre
 Straight levee rice - zero grade
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	39.75	1.0000	39.75	_____
ADJUVANTS	acre	8.28	1.0000	8.28	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.5988	8.52	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	23.3194	60.64	_____
REPAIR & MAINTENANCE	acre	28.79	1.0000	28.79	_____
INTEREST ON OP. CAP.	acre	14.08	1.0000	14.08	_____

TOTAL DIRECT EXPENSES				664.04	_____
RETURNS ABOVE DIRECT EXPENSES				71.96	_____
TOTAL FIXED EXPENSES				141.32	_____

TOTAL SPECIFIED EXPENSES				805.36	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-69.36	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 4.C Estimated resource use for field operations, per acre
 Straight levee rice - zero grade
 Flood irrigated, 19 ac-in., Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 4.D Estimated costs for field operations, per acre
 Straight levee rice - zero grade
 Flood irrigated, 19 ac-in., Mississippi, 2019

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						0.20	3.53		3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	8.57	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	2.06	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99		6.99
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	7.35	15.19
Rice Seed Conv.	lb	22.50						0.68	23.18		23.18
Rice Seed Trt/Insect	lbseed	17.25						0.52	17.77		17.77
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	2.39	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Command 3ME	pt	19.93						0.60	20.53		20.53
Sharpen	oz	12.90						0.39	13.29		13.29
Class Act NG	pt	1.19						0.04	1.23		1.23
MSO	pt	1.05						0.03	1.08		1.08
Rice Consultant	acre	8.00						0.20	8.20		8.20
App Fert by Air	cwt	7.00						0.18	7.18		7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43		7.43
DAP	cwt	11.88						0.30	12.18		12.18
App by Air (5 gal)	appl	6.50						0.16	6.66		6.66
Regiment	oz	22.45						0.56	23.01		23.01
Dyne-A-Pak	pt	2.40						0.06	2.46		2.46
App Fert by Air	cwt	17.50						0.44	17.94		17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16		37.16
NBPT	pt	6.84						0.17	7.01		7.01
Rice Management											
RICE MGT. LABOR	hour				0.91			0.02	0.93		0.93
App by Air (5 gal)	appl	6.50						0.16	6.66		6.66
Facet L	pt	41.02						1.03	42.05		42.05
Permit	oz	16.85						0.42	17.27		17.27
Crop Oil Conc.(Pet.)	pt	1.19						0.03	1.22		1.22
App by Air (5 gal)	appl	3.25						0.07	3.32		3.32
Clincher SF	oz	17.55						0.35	17.90		17.90
MSO	pt	2.09						0.04	2.13		2.13
Rice Management											
RICE MGT. LABOR	hour				1.81			0.04	1.85		1.85
App Fert by Air	cwt	10.50						0.21	10.71		10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18		22.18
Rice Management											
RICE MGT. LABOR	hour				1.81			0.03	1.84		1.84
App by Air (5 gal)	appl	6.50						0.10	6.60		6.60
Stratego	pt	29.19						0.44	29.63		29.63
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air (3 gal)	appl	7.50						0.11	7.61		7.61
Warrior II	oz	8.01						0.12	8.13		8.13
Rice Management											
RICE MGT. LABOR	hour				1.81			0.02	1.83		1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	32.79	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	0.67	1.49
Handling & Storage											
HAND LABOR	hour				2.27			0.02	2.29		2.29
Haul Rice	bu	56.00						0.56	56.56		56.56
Dry Rice	bu	64.00						0.64	64.64		64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	11.35	23.15
Flood Irr.	acre		40.24	11.46	9.53			1.38	62.61	76.14	138.75
TOTALS			525.48	60.64	28.79	35.05	0.00	14.08	664.04	141.32	805.36

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 4.E Estimated monthly income and expense flows per acre
 Straight levee rice - zero grade
 Flood irrigated, 19 ac-in., Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	39.75	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.59	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	6.91	3.18	4.08	4.08	9.13	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	12.34	10.59	10.59	10.59	7.99	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.09	7.37	1.46	1.46	9.25	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	3.29	5.33	1.43	1.02	1.46	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	112.43	218.10	72.70	68.71	147.83	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-112.43	-218.10	-72.70	-68.71	588.17	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-144.90	-363.00	-435.70	-504.41	83.76	71.96

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre
 Straight levee rice - zero grade
 Flood irrigated, 19 ac-in., Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-327 -468	-309 -450	-290 -431	-272 -413	-253 -395	-235 -376	-217 -358	-198 -339	-180 -321	-161 -303	-143 -284
60	96.00	bu	-284 -425	-262 -403	-240 -381	-218 -359	-196 -337	-173 -315	-151 -293	-129 -271	-107 -249	-85 -226	-63 -204
70	112.00	bu	-241 -382	-215 -356	-189 -331	-164 -305	-138 -279	-112 -253	-86 -228	-60 -202	-35 -176	-9 -150	16 -125
80	128.00	bu	-198 -339	-168 -310	-139 -280	-109 -251	-80 -221	-51 -192	-21 -162	7 -133	37 -104	66 -74	96 -45
90	144.00	bu	-155 -296	-122 -263	-88 -230	-55 -197	-22 -163	10 -130	43 -97	76 -64	109 -31	142 1	176 34
100	160.00	bu	-112 -253	-75 -216	-38 -179	-1 -142	35 -106	71 -69	108 -32	145 4	182 41	219 77	255 114
110	176.00	bu	-68 -210	-28 -169	12 -129	52 -88	92 -48	133 -7	173 32	214 73	254 113	295 154	335 194
120	192.00	bu	-25 -167	18 -123	62 -78	106 -34	150 9	194 53	239 97	283 141	327 186	371 230	415 274
130	208.00	bu	17 -124	65 -76	112 -28	160 19	208 67	256 115	304 162	352 210	399 258	447 306	495 354
140	224.00	bu	60 -81	111 -29	163 22	214 73	266 125	317 176	369 228	420 279	472 331	523 382	575 434
150	240.00	bu	103 -37	158 17	213 72	268 127	324 182	379 238	434 293	489 348	544 403	600 458	655 514

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 2018 input prices.

Table 5.A Estimated costs per acre
 Conventional hybrid contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CvH (Levee)	lb	1.66	4.2500	7.06	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.4000	0.95	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.5475	7.79	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.9886	15.58	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	26.8827	69.89	_____
REPAIR & MAINTENANCE					
Implements	acre	8.32	1.0000	8.32	_____
Tractors	acre	3.10	1.0000	3.10	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.79	1.0000	13.79	_____
INTEREST ON OP. CAP.	acre	17.84	1.0000	17.84	_____
TOTAL DIRECT EXPENSES				796.02	_____
FIXED EXPENSES					
Implements	acre	20.07	1.0000	20.07	_____
Tractors	acre	21.41	1.0000	21.41	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	49.18	1.0000	49.18	_____
TOTAL FIXED EXPENSES				119.22	_____
TOTAL SPECIFIED EXPENSES				915.24	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 5.B Summary of estimated costs and returns per acre
 Conventional hybrid contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	36.75	1.0000	36.75	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	139.14	1.0000	139.14	_____
ADJUVANTS	acre	7.68	1.0000	7.68	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.7235	10.29	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	35.8158	93.13	_____
REPAIR & MAINTENANCE	acre	31.85	1.0000	31.85	_____
INTEREST ON OP. CAP.	acre	17.84	1.0000	17.84	_____

TOTAL DIRECT EXPENSES				796.02	_____
RETURNS ABOVE DIRECT EXPENSES				31.98	_____
TOTAL FIXED EXPENSES				119.22	_____

TOTAL SPECIFIED EXPENSES				915.24	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-87.24	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 5.C Estimated resource use for field operations, per acre
 Conventional hybrid contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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 II	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 2018 input prices.

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

Table 5.D Estimated costs for field operations, per acre
 Conventional hybrid contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Conv Hyb Trt	lb	131.10						3.93	135.03	135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CvH (Levee)	lb	7.06						0.21	7.27	7.27
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01	1.01
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Regiment	oz	22.45						0.56	23.01	23.01
Dyne-A-Pak	pt	2.40						0.06	2.46	2.46
App Fert by Air	cwt	18.69						0.47	19.16	19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68	39.68
NBPT	pt	7.30						0.18	7.48	7.48
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Facet L	pt	41.02						1.03	42.05	42.05
Permit	oz	16.85						0.42	17.27	17.27
Crop Oil Conc. (Pet.)	pt	0.95						0.02	0.97	0.97
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	4.56						0.09	4.65	4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64	9.64
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	63.00						0.63	63.63	63.63
Dry Rice	bu	72.00						0.72	72.72	72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	4.50	72.73	14.52	33.73			2.84	128.32	182.36
TOTALS		593.95	93.13	31.85	59.25	0.00	17.84	796.02	119.22	915.24

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 5.E Estimated monthly income and expense flows per acre
 Conventional hybrid contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.14	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.35	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	15.96	7.71	8.61	8.61	10.69	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	18.38	19.06	19.06	19.06	9.03	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.80	8.06	2.15	2.15	9.53	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.87	5.76	1.34	0.68	1.64	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	235.70	236.09	68.06	46.01	165.89	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-235.70	-236.09	-68.06	-46.01	662.11	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-268.17	-504.26	-572.32	-618.33	43.78	31.98

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs

Table 5.F Estimated returns for various price/yield combinations, per acre
 Conventional hybrid contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-417 -536	-396 -515	-375 -495	-355 -474	-334 -453	-313 -433	-293 -412	-272 -391	-251 -370	-231 -350	-210 -329
60	108.00	bu	-368 -488	-344 -463	-319 -438	-294 -413	-269 -388	-244 -363	-219 -339	-195 -314	-170 -289	-145 -264	-120 -239
70	126.00	bu	-320 -439	-291 -410	-262 -381	-233 -352	-204 -323	-175 -294	-146 -265	-117 -236	-88 -207	-59 -178	-30 -149
80	144.00	bu	-271 -391	-238 -358	-205 -324	-172 -291	-139 -258	-106 -225	-73 -192	-40 -159	-6 -126	26 -93	59 -59
90	162.00	bu	-223 -342	-186 -305	-148 -268	-111 -230	-74 -193	-37 -156	0 -119	37 -81	74 -44	111 -7	149 29
100	180.00	bu	-175 -294	-133 -252	-92 -211	-50 -170	-9 -128	31 -87	73 -45	114 -4	156 36	197 78	238 119
110	198.00	bu	-126 -245	-81 -200	-35 -154	10 -109	55 -63	101 -18	146 27	192 73	237 118	283 164	328 209
120	216.00	bu	-78 -197	-28 -147	21 -97	70 -48	120 1	170 51	219 100	269 150	319 200	369 249	418 299
130	234.00	bu	-29 -148	24 -95	78 -41	131 12	185 66	239 120	293 174	347 227	400 281	454 335	508 389
140	252.00	bu	18 -100	76 -42	134 15	192 73	250 131	308 189	366 247	424 305	482 363	540 421	598 479
150	270.00	bu	67 -51	129 10	191 72	253 134	315 196	377 258	439 320	502 382	564 444	626 506	688 569

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 2018 input prices.

Table 6.A Estimated costs per acre
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CvH (Levee)	lb	1.66	4.2500	7.06	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.4000	0.95	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.4999	7.12	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.5719	14.50	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	21.9949	57.20	_____
REPAIR & MAINTENANCE					
Implements	acre	8.26	1.0000	8.26	_____
Tractors	acre	2.89	1.0000	2.89	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	17.23	1.0000	17.23	_____
TOTAL DIRECT EXPENSES				768.00	_____
FIXED EXPENSES					
Implements	acre	19.68	1.0000	19.68	_____
Tractors	acre	19.90	1.0000	19.90	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.81	1.0000	76.81	_____
TOTAL FIXED EXPENSES				144.95	_____
TOTAL SPECIFIED EXPENSES				912.95	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 6.B Summary of estimated costs and returns per acre
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	36.75	1.0000	36.75	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	139.14	1.0000	139.14	_____
ADJUVANTS	acre	7.68	1.0000	7.68	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.6759	9.62	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	30.5114	79.36	_____
REPAIR & MAINTENANCE	acre	31.57	1.0000	31.57	_____
INTEREST ON OP. CAP.	acre	17.23	1.0000	17.23	_____

TOTAL DIRECT EXPENSES				768.00	_____
RETURNS ABOVE DIRECT EXPENSES				60.00	_____
TOTAL FIXED EXPENSES				144.95	_____

TOTAL SPECIFIED EXPENSES				912.95	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-84.95	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 6.C Estimated resource use for field operations, per acre
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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 II	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 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 6.D Estimated costs for field operations, per acre
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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						0.20	3.53		3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	8.57	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	2.06	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99		6.99
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	7.35	15.19
Rice Conv Hyb Trt	lb	131.10						3.93	135.03		135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	2.39	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Command 3ME	pt	19.93						0.60	20.53		20.53
Sharpen	oz	12.90						0.39	13.29		13.29
MSO	pt	1.05						0.03	1.08		1.08
Class Act NG	pt	1.19						0.04	1.23		1.23
Seed Levees											
Rice Seed CvH (Levee)	lb	7.06						0.21	7.27		7.27
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01		1.01
App Fert by Air	cwt	7.00						0.18	7.18		7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43		7.43
DAP	cwt	11.88						0.30	12.18		12.18
Rice Consultant	acre	8.00						0.20	8.20		8.20
App by Air (5 gal)	appl	6.50						0.16	6.66		6.66
Regiment	oz	22.45						0.56	23.01		23.01
Dyne-A-Pak	pt	2.40						0.06	2.46		2.46
App Fert by Air	cwt	18.69						0.47	19.16		19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68		39.68
NBPT	pt	7.30						0.18	7.48		7.48
Rice Management											
RICE MGT. LABOR	hour				0.91			0.02	0.93		0.93
App by Air (5 gal)	appl	6.50						0.16	6.66		6.66
Facet L	pt	41.02						1.03	42.05		42.05
Permit	oz	16.85						0.42	17.27		17.27
Crop Oil Conc. (Pet.)	pt	0.95						0.02	0.97		0.97
App by Air (5 gal)	appl	3.25						0.07	3.32		3.32
Clincher SF	oz	17.55						0.35	17.90		17.90
MSO	pt	2.09						0.04	2.13		2.13
Rice Management											
RICE MGT. LABOR	hour				1.81			0.04	1.85		1.85
App Fert by Air	cwt	4.56						0.09	4.65		4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64		9.64
Rice Management											
RICE MGT. LABOR	hour				1.81			0.03	1.84		1.84
App by Air (3 gal)	appl	7.50						0.11	7.61		7.61
Warrior II	oz	8.01						0.12	8.13		8.13
Rice Management											
RICE MGT. LABOR	hour				1.81			0.02	1.83		1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	32.79	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	0.67	1.49
Handling & Storage											
HAND LABOR	hour				2.27			0.02	2.29		2.29
Haul Rice	bu	63.00						0.63	63.63		63.63
Dry Rice	bu	72.00						0.72	72.72		72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	11.35	23.15
Flood Irr.	acre	2.25	58.96	14.24	22.62			2.23	100.30	79.77	180.07
TOTALS		591.70	79.36	31.57	48.14	0.00	17.23	768.00	144.95	912.95	

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 6.E Estimated monthly income and expense flows per acre
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.14	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.35	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	11.95	5.44	6.34	6.34	10.40	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	17.77	14.83	14.83	14.83	8.56	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.97	7.95	2.04	2.04	9.41	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.67	5.59	1.21	0.58	1.63	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	228.80	229.31	61.32	39.30	165.00	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-228.80	-229.31	-61.32	-39.30	663.00	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-261.27	-490.58	-551.90	-591.20	71.80	60.00

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 6.F Estimated returns for various price/yield combinations, per acre
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-389 -534	-368 -513	-347 -492	-327 -472	-306 -451	-285 -430	-265 -410	-244 -389	-223 -368	-203 -347	-182 -327
60	108.00	bu	-340 -485	-316 -460	-291 -436	-266 -411	-241 -386	-216 -361	-191 -336	-166 -311	-142 -287	-117 -262	-92 -237
70	126.00	bu	-292 -437	-263 -408	-234 -379	-205 -350	-176 -321	-147 -292	-118 -263	-89 -234	-60 -205	-31 -176	-2 -147
80	144.00	bu	-243 -388	-210 -355	-177 -322	-144 -289	-111 -256	-78 -223	-45 -190	-12 -157	21 -123	54 -90	87 -57
90	162.00	bu	-195 -340	-158 -303	-120 -265	-83 -228	-46 -191	-9 -154	28 -116	65 -79	102 -42	139 -5	177 32
100	180.00	bu	-147 -291	-105 -250	-64 -209	-22 -167	18 -126	60 -84	101 -43	142 -2	184 39	225 80	267 122
110	198.00	bu	-98 -243	-52 -197	-7 -152	38 -106	83 -61	129 -15	174 29	220 75	265 120	311 166	356 211
120	216.00	bu	-50 -195	-0 -145	49 -95	98 -45	148 3	198 53	248 103	297 152	347 202	397 252	446 301
130	234.00	bu	-1 -146	52 -92	106 -38	159 14	213 68	267 122	321 176	375 230	428 284	482 337	536 391
140	252.00	bu	46 -98	104 -40	162 17	220 75	278 133	336 191	394 249	452 307	510 365	568 423	626 481
150	270.00	bu	95 -49	157 12	219 74	281 136	343 198	405 260	467 322	530 385	592 447	654 509	716 571

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 2018 input prices.

Table 7.A Estimated costs per acre
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CvH (Levee)	lb	1.66	4.2500	7.06	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.4000	0.95	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.5281	7.52	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.8180	15.13	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	18.7364	48.72	_____
REPAIR & MAINTENANCE					
Implements	acre	8.32	1.0000	8.32	_____
Tractors	acre	3.02	1.0000	3.02	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	17.07	1.0000	17.07	_____
TOTAL DIRECT EXPENSES				757.51	_____
FIXED EXPENSES					
Implements	acre	20.19	1.0000	20.19	_____
Tractors	acre	20.80	1.0000	20.80	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.48	1.0000	76.48	_____
TOTAL FIXED EXPENSES				146.03	_____
TOTAL SPECIFIED EXPENSES				903.54	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	36.75	1.0000	36.75	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	139.14	1.0000	139.14	_____
ADJUVANTS	acre	7.68	1.0000	7.68	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.7041	10.02	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	27.4990	71.51	_____
REPAIR & MAINTENANCE	acre	31.44	1.0000	31.44	_____
INTEREST ON OP. CAP.	acre	17.07	1.0000	17.07	_____

TOTAL DIRECT EXPENSES				757.51	_____
RETURNS ABOVE DIRECT EXPENSES				70.49	_____

TOTAL FIXED EXPENSES				146.03	_____

TOTAL SPECIFIED EXPENSES				903.54	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-75.54	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd 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, 2019

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 II	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 2018 input prices.

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

Table 7.D Estimated costs for field operations, per acre
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Conv Hyb Trt	lb	131.10						3.93	135.03	135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CvH (Levee)	lb	7.06						0.21	7.27	7.27
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01	1.01
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Regiment	oz	22.45						0.56	23.01	23.01
Dyne-A-Pak	pt	2.40						0.06	2.46	2.46
App Fert by Air	cwt	18.69						0.47	19.16	19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68	39.68
NBPT	pt	7.30						0.18	7.48	7.48
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Facet L	pt	41.02						1.03	42.05	42.05
Permit	oz	16.85						0.42	17.27	17.27
Crop Oil Conc. (Pet.)	pt	0.95						0.02	0.97	0.97
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	4.56						0.09	4.65	4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64	9.64
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	63.00						0.63	63.63	63.63
Dry Rice	bu	72.00						0.72	72.72	72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	10.50	51.11	14.11	12.02			2.07	89.81	170.66
TOTALS		599.95	71.51	31.44	37.54	0.00	17.07	757.51	146.03	903.54

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

Soil test cost is prorated for a test every 3rd 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, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.14	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.35	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	9.77	2.72	3.62	3.62	10.14	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	16.14	12.71	12.71	12.71	8.70	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	5.01	7.88	1.97	1.97	9.45	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.80	5.48	1.11	0.51	1.62	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	233.41	224.29	56.31	34.32	164.91	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-233.41	-224.29	-56.31	-34.32	663.09	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-265.88	-490.17	-546.48	-580.80	82.29	70.49

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 7.F Estimated returns for various price/yield combinations, per acre
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
Rice	3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75		
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-378 -524	-358 -504	-337 -483	-316 -462	-296 -442	-275 -421	-254 -400	-233 -379	-213 -359	-192 -338	-171 -317
60	108.00	bu	-330 -476	-305 -451	-280 -426	-255 -401	-231 -377	-206 -352	-181 -327	-156 -302	-131 -277	-106 -252	-81 -228
70	126.00	bu	-281 -427	-252 -398	-223 -369	-194 -340	-165 -312	-137 -283	-108 -254	-79 -225	-50 -196	-21 -167	7 -138
80	144.00	bu	-233 -379	-200 -346	-167 -313	-134 -280	-100 -246	-67 -213	-34 -180	-1 -147	31 -114	64 -81	97 -48
90	162.00	bu	-184 -331	-147 -293	-110 -256	-73 -219	-35 -181	1 -144	38 -107	75 -70	113 -32	150 4	187 41
100	180.00	bu	-136 -282	-95 -241	-53 -199	-12 -158	29 -116	70 -75	111 -34	153 7	194 48	236 90	277 131
110	198.00	bu	-88 -234	-42 -188	3 -142	48 -97	94 -51	139 -6	185 39	230 84	276 130	321 175	367 221
120	216.00	bu	-39 -185	10 -135	59 -86	109 -36	159 13	208 62	258 112	308 162	357 211	407 261	457 311
130	234.00	bu	8 -137	62 -83	116 -29	170 24	224 78	277 131	331 185	385 239	439 293	493 347	547 401
140	252.00	bu	57 -88	115 -30	173 27	231 85	289 143	347 201	405 259	463 317	521 375	578 432	636 490
150	270.00	bu	105 -40	167 21	230 83	292 146	354 208	416 270	478 332	540 394	602 456	664 518	726 580

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 2018 input prices.

Table 8.A Estimated costs per acre
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Regiment	oz	44.90	0.5000	22.45	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.46	0.7500	16.85	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CvH (Levee)	lb	1.66	4.2500	7.06	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.80	0.5000	2.40	_____
Crop Oil Conc. (Pet.)	pt	2.37	0.4000	0.95	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.4228	6.02	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	4.8970	12.74	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	15.4779	40.24	_____
REPAIR & MAINTENANCE					
Implements	acre	8.16	1.0000	8.16	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.					
	acre	16.38	1.0000	16.38	_____
TOTAL DIRECT EXPENSES				730.31	_____
FIXED EXPENSES					
Implements	acre	19.19	1.0000	19.19	_____
Tractors	acre	17.43	1.0000	17.43	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.14	1.0000	76.14	_____
TOTAL FIXED EXPENSES				141.32	_____
TOTAL SPECIFIED EXPENSES				871.63	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	36.75	1.0000	36.75	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	146.70	1.0000	146.70	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	139.14	1.0000	139.14	_____
ADJUVANTS	acre	7.68	1.0000	7.68	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.5988	8.52	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	23.3194	60.64	_____
REPAIR & MAINTENANCE	acre	28.79	1.0000	28.79	_____
INTEREST ON OP. CAP.	acre	16.38	1.0000	16.38	_____

TOTAL DIRECT EXPENSES				730.31	_____
RETURNS ABOVE DIRECT EXPENSES				97.69	_____
TOTAL FIXED EXPENSES				141.32	_____

TOTAL SPECIFIED EXPENSES				871.63	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-43.63	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd 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, 2019

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 II	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 2018 input prices.

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

Table 8.D Estimated costs for field operations, per acre
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Conv Hyb Trt	lb	131.10						3.93	135.03	135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CvH (Levee)	lb	7.06						0.21	7.27	7.27
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01	1.01
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Regiment	oz	22.45						0.56	23.01	23.01
Dyne-A-Pak	pt	2.40						0.06	2.46	2.46
App Fert by Air	cwt	18.69						0.47	19.16	19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68	39.68
NBPT	pt	7.30						0.18	7.48	7.48
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.16	6.66	6.66
Facet L	pt	41.02						1.03	42.05	42.05
Permit	oz	16.85						0.42	17.27	17.27
Crop Oil Conc. (Pet.)	pt	0.95						0.02	0.97	0.97
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	4.56						0.09	4.65	4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64	9.64
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	63.00						0.63	63.63	63.63
Dry Rice	bu	72.00						0.72	72.72	72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre		40.24	11.46	9.53			1.38	62.61	138.75
TOTALS		589.45	60.64	28.79	35.05	0.00	16.38	730.31	141.32	871.63

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests
Soil test cost is prorated for a test every 3rd 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, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	13.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	80.32	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.14	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.24	3.35	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	6.91	3.18	4.08	4.08	9.13	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	12.34	10.59	10.59	10.59	7.99	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.09	7.37	1.46	1.46	9.25	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.26	5.42	1.07	0.47	1.61	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	214.79	222.06	54.10	32.11	162.98	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-214.79	-222.06	-54.10	-32.11	665.02	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-247.26	-469.32	-523.42	-555.53	109.49	97.69

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-351 -492	-330 -472	-310 -451	-289 -430	-268 -410	-248 -389	-227 -368	-206 -348	-186 -327	-165 -306	-144 -285
60	108.00	bu	-303 -444	-278 -419	-253 -394	-228 -369	-203 -345	-178 -320	-154 -295	-129 -270	-104 -245	-79 -220	-54 -196
70	126.00	bu	-254 -396	-225 -367	-196 -338	-167 -309	-138 -280	-109 -251	-80 -222	-51 -193	-22 -164	6 -135	35 -106
80	144.00	bu	-206 -347	-173 -314	-140 -281	-106 -248	-73 -215	-40 -181	-7 -148	25 -115	58 -82	91 -49	124 -16
90	162.00	bu	-157 -299	-120 -261	-83 -224	-45 -187	-8 -150	28 -112	65 -75	103 -38	140 -1	177 36	214 73
100	180.00	bu	-109 -250	-67 -209	-26 -167	14 -126	56 -85	97 -43	139 -2	180 39	221 80	263 121	304 163
110	198.00	bu	-60 -202	-15 -156	30 -111	75 -65	121 -20	166 25	212 71	257 116	303 162	349 207	394 253
120	216.00	bu	-12 -153	37 -104	86 -54	136 -4	186 45	236 94	285 144	335 194	385 243	434 293	484 343
130	234.00	bu	36 -105	89 -51	143 2	197 56	251 110	305 163	359 217	412 271	466 325	520 379	574 432
140	252.00	bu	84 -56	142 1	200 59	258 117	316 175	374 233	432 290	490 348	548 406	606 464	664 522
150	270.00	bu	133 -8	195 53	257 115	319 177	381 240	443 302	505 364	567 426	629 488	691 550	754 612

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 2018 input prices.

Table 9.A Estimated costs per acre
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Clearfield	lb	1.06	65.0000	68.90	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF (Levees)	lb	0.90	12.0000	10.80	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.09	1.5000	3.14	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.5475	7.79	_____
Harvesters	hour	14.23	0.2030	2.89	_____
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	14.25	0.5633	8.03	_____
DIESEL FUEL					
Tractors	gal	2.60	5.9886	15.58	_____
Harvesters	gal	2.60	3.3975	8.83	_____
Flood Irr.	gal	2.60	26.8827	69.89	_____
REPAIR & MAINTENANCE					
Implements	acre	8.70	1.0000	8.70	_____
Tractors	acre	3.10	1.0000	3.10	_____
Harvesters	acre	7.66	1.0000	7.66	_____
Flood Irr.	acre	13.79	1.0000	13.79	_____
INTEREST ON OP. CAP.	acre	17.41	1.0000	17.41	_____
TOTAL DIRECT EXPENSES				790.01	_____
FIXED EXPENSES					
Implements	acre	20.72	1.0000	20.72	_____
Tractors	acre	21.41	1.0000	21.41	_____
Harvesters	acre	32.95	1.0000	32.95	_____
Flood Irr.	acre	49.18	1.0000	49.18	_____
TOTAL FIXED EXPENSES				124.26	_____
TOTAL SPECIFIED EXPENSES				914.27	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 9.B Summary of estimated costs and returns per acre
Clearfield contour levee rice
Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	97.41	1.0000	97.41	_____
ADJUVANTS	acre	14.17	1.0000	14.17	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.7506	10.68	_____
RICE MGT. LABOR	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR	hour	14.25	0.5633	8.03	_____
DIESEL FUEL	gal	2.60	36.2688	94.30	_____
REPAIR & MAINTENANCE	acre	33.25	1.0000	33.25	_____
INTEREST ON OP. CAP.	acre	17.41	1.0000	17.41	_____

TOTAL DIRECT EXPENSES				790.01	_____
RETURNS ABOVE DIRECT EXPENSES				-54.01	_____
TOTAL FIXED EXPENSES				124.26	_____

TOTAL SPECIFIED EXPENSES				914.27	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-178.27	_____

Note: Cost of production estimates are based on 2018 input prices.

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

Table 9.C Estimated resource use for field operations, per acre
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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 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	lb					0.5000				
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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 9.D Estimated costs for field operations, per acre
Clearfield contour levee rice
Flood irrigated, 33 ac-in., Mississippi, 2019

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						0.20	3.53		3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	8.57	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	2.06	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99		6.99
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	7.35	15.19
Rice Clearfield	lb	68.90						2.07	70.97		70.97
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40		15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	2.39	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Command 3ME	pt	19.93						0.60	20.53		20.53
Sharpen	oz	12.90						0.39	13.29		13.29
Class Act NG	pt	1.19						0.04	1.23		1.23
MSO	pt	1.05						0.03	1.08		1.08
Seed Levees											
Rice Seed CF(Levees)	lb	10.80						0.32	11.12		11.12
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84		2.84
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Clearpath	lb	30.64						0.92	31.56		31.56
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88		4.88
App Fert by Air	cwt	7.00						0.18	7.18		7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43		7.43
DAP	cwt	11.88						0.30	12.18		12.18
Rice Consultant	acre	8.00						0.20	8.20		8.20
App Fert by Air	cwt	17.50						0.44	17.94		17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16		37.16
NBPT	pt	6.84						0.17	7.01		7.01
App by Air (10 gal)	appl	9.00						0.23	9.23		9.23
Newpath	oz	22.98						0.57	23.55		23.55
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86		4.86
Aim	oz	8.48						0.21	8.69		8.69
Rice Management											
RICE MGT. LABOR	hour				2.72			0.07	2.79		2.79
App by Air (5 gal)	appl	3.25						0.07	3.32		3.32
Clincher SF	oz	17.55						0.35	17.90		17.90
MSO	pt	2.09						0.04	2.13		2.13
Rice Management											
RICE MGT. LABOR	hour				4.53			0.09	4.62		4.62
App Fert by Air	cwt	10.50						0.21	10.71		10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18		22.18
Rice Management											
RICE MGT. LABOR	hour				4.53			0.07	4.60		4.60
App by Air (5 gal)	appl	6.50						0.10	6.60		6.60
Stratego	pt	29.19						0.44	29.63		29.63
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air (3 gal)	appl	7.50						0.11	7.61		7.61
Warrior II	oz	8.01						0.12	8.13		8.13
Rice Management											
RICE MGT. LABOR	hour				1.81			0.02	1.83		1.83
Header - Draper (CL)	25' Rigid		8.83	10.47	5.49			0.25	25.04	37.83	62.87
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	0.67	1.49
Handling & Storage											
HAND LABOR	hour				2.27			0.02	2.29		2.29
Haul Rice	bu	56.00						0.56	56.56		56.56
Dry Rice	bu	64.00						0.64	64.64		64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	11.35	23.15
Flood Irr.	acre	4.50	72.73	14.52	33.73			2.84	128.32	54.04	182.36
TOTALS		577.81	94.30	33.25	67.24	0.00	17.41	790.01	124.26	914.27	

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 9.E Estimated monthly income and expense flows per acre
Clearfield contour levee rice
Flood irrigated, 33 ac-in., Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	97.41	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	15.96	9.52	11.33	11.33	11.43	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	18.38	19.06	19.06	19.06	10.20	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.80	8.06	2.15	2.15	10.93	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.88	4.43	1.75	1.27	1.53	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	235.86	180.99	89.43	85.37	154.09	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-235.86	-180.99	-89.43	-85.37	581.91	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-268.33	-449.32	-538.75	-624.12	-42.21	-54.01

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 9.F Estimated returns for various price/yield combinations, per acre
Clearfield contour levee rice
Flood irrigated, 33 ac-in., Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-453 -577	-435 -559	-416 -540	-398 -522	-379 -504	-361 -485	-343 -467	-324 -448	-306 -430	-287 -412	-269 -393
60	96.00	bu	-410 -534	-388 -512	-366 -490	-344 -468	-322 -446	-299 -424	-277 -402	-255 -380	-233 -357	-211 -335	-189 -313
70	112.00	bu	-367 -491	-341 -465	-315 -439	-289 -414	-264 -388	-238 -362	-212 -336	-186 -311	-161 -285	-135 -259	-109 -233
80	128.00	bu	-324 -448	-294 -418	-265 -389	-235 -360	-206 -330	-176 -301	-147 -271	-118 -242	-88 -212	-59 -183	-29 -154
90	144.00	bu	-281 -405	-247 -372	-214 -339	-181 -305	-148 -272	-115 -239	-82 -206	-49 -173	-16 -140	16 -107	50 -74
100	160.00	bu	-238 -362	-201 -325	-164 -288	-127 -251	-90 -215	-54 -178	-17 -141	19 -104	56 -67	93 -31	129 5
110	176.00	bu	-194 -319	-154 -278	-113 -238	-73 -197	-33 -157	7 -116	47 -76	88 -35	128 4	169 45	209 85
120	192.00	bu	-151 -276	-107 -231	-63 -187	-19 -143	24 -99	68 -55	113 -11	157 33	201 77	245 121	289 165
130	208.00	bu	-108 -233	-60 -185	-13 -137	34 -89	82 -41	130 6	178 54	226 101	273 149	321 197	369 245
140	224.00	bu	-65 -189	-14 -138	37 -86	88 -35	140 16	191 67	243 119	294 170	346 222	397 273	449 325
150	240.00	bu	-22 -146	32 -91	87 -36	142 18	198 73	253 129	308 184	363 239	418 294	474 349	529 405

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 2018 input prices.

Table 10.A Estimated costs per acre
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Clearfield	lb	1.06	65.0000	68.90	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF (Levees)	lb	0.90	12.0000	10.80	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.4999	7.12	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.5719	14.50	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	21.9949	57.20	_____
REPAIR & MAINTENANCE					
Implements	acre	8.26	1.0000	8.26	_____
Tractors	acre	2.89	1.0000	2.89	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	16.62	1.0000	16.62	_____
TOTAL DIRECT EXPENSES				751.25	_____
FIXED EXPENSES					
Implements	acre	19.68	1.0000	19.68	_____
Tractors	acre	19.90	1.0000	19.90	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.81	1.0000	76.81	_____
TOTAL FIXED EXPENSES				144.95	_____
TOTAL SPECIFIED EXPENSES				896.20	_____

Note: Cost of production estimates are based on 2018 input prices.

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

Table 10.B Summary of estimated costs and returns per acre
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	97.41	1.0000	97.41	_____
ADJUVANTS	acre	14.17	1.0000	14.17	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.6759	9.62	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	30.5114	79.36	_____
REPAIR & MAINTENANCE	acre	31.57	1.0000	31.57	_____
INTEREST ON OP. CAP.	acre	16.62	1.0000	16.62	_____

TOTAL DIRECT EXPENSES				751.25	_____
RETURNS ABOVE DIRECT EXPENSES				-15.25	_____
TOTAL FIXED EXPENSES				144.95	_____

TOTAL SPECIFIED EXPENSES				896.20	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-160.20	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 10.C Estimated resource use for field operations, per acre
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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 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	lb					0.5000				
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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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	
TOTALS							0.67	0.67	4.07	0.53

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 10.D Estimated costs for field operations, per acre
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Clearfield	lb	68.90						2.07	70.97	70.97
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40	15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CF (Levees)	lb	10.80						0.32	11.12	11.12
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84	2.84
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Clearpath	lb	30.64						0.92	31.56	31.56
Crop Oil Conc. (Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Newpath	oz	22.98						0.57	23.55	23.55
Crop Oil Conc. (Pet.)	pt	4.74						0.12	4.86	4.86
Aim	oz	8.48						0.21	8.69	8.69
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	56.00						0.56	56.56	56.56
Dry Rice	bu	64.00						0.64	64.64	64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	2.25	58.96	14.24	22.62			2.23	100.30	180.07
TOTALS		575.56	79.36	31.57	48.14	0.00	16.62	751.25	144.95	896.20

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 10.E Estimated monthly income and expense flows per acre
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	97.41	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	11.95	5.44	6.34	6.34	10.40	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	17.77	14.83	14.83	14.83	8.56	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.97	7.95	2.04	2.04	9.41	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.68	4.21	1.57	1.13	1.48	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	228.96	172.35	79.92	75.90	149.85	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-228.96	-172.35	-79.92	-75.90	586.15	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-261.43	-433.78	-513.70	-589.60	-3.45	-15.25

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs

Table 10.F Estimated returns for various price/yield combinations, per acre
Clearfield straight levee rice
Flood irrigated, 27 ac-in., Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-414 -559	-396 -541	-377 -522	-359 -504	-341 -486	-322 -467	-304 -449	-285 -430	-267 -412	-249 -394	-230 -375
60	96.00	bu	-371 -516	-349 -494	-327 -472	-305 -450	-283 -428	-261 -406	-239 -384	-217 -361	-194 -339	-172 -317	-150 -295
70	112.00	bu	-328 -473	-302 -447	-276 -421	-251 -396	-225 -370	-199 -344	-173 -318	-148 -293	-122 -267	-96 -241	-70 -215
80	128.00	bu	-285 -430	-255 -400	-226 -371	-197 -342	-167 -312	-138 -283	-108 -253	-79 -224	-49 -194	-20 -165	8 -135
90	144.00	bu	-242 -387	-209 -354	-176 -321	-142 -287	-109 -254	-76 -221	-43 -188	-10 -155	22 -122	55 -89	88 -56
100	160.00	bu	-199 -344	-162 -307	-125 -270	-88 -233	-52 -197	-15 -160	21 -123	58 -86	95 -49	131 -13	168 23
110	176.00	bu	-156 -301	-115 -260	-75 -220	-34 -179	5 -139	46 -98	86 -58	127 -17	167 22	208 63	248 103
120	192.00	bu	-113 -258	-68 -213	-24 -169	19 -125	63 -81	107 -37	151 6	196 51	240 95	284 139	328 183
130	208.00	bu	-70 -214	-22 -167	25 -119	73 -71	121 -23	169 24	217 72	264 119	312 167	360 215	408 263
140	224.00	bu	-26 -171	24 -120	76 -68	127 -17	179 34	230 85	282 137	333 188	385 240	436 291	488 343
150	240.00	bu	16 -128	71 -73	126 -18	181 36	236 92	292 147	347 202	402 257	457 312	512 368	568 423

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 2018 input prices.

Table 11.A Estimated costs per acre
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Clearfield	lb	1.06	65.0000	68.90	_____
Rice Seed Trt./Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF(Levees)	lb	0.90	12.0000	10.80	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.5281	7.52	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.8180	15.13	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	18.7364	48.72	_____
REPAIR & MAINTENANCE					
Implements	acre	8.32	1.0000	8.32	_____
Tractors	acre	3.02	1.0000	3.02	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	16.46	1.0000	16.46	_____
TOTAL DIRECT EXPENSES				740.76	_____
FIXED EXPENSES					
Implements	acre	20.19	1.0000	20.19	_____
Tractors	acre	20.80	1.0000	20.80	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.48	1.0000	76.48	_____
TOTAL FIXED EXPENSES				146.03	_____
TOTAL SPECIFIED EXPENSES				886.79	_____

Note: Cost of production estimates are based on 2018 input prices.

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

Table 11.B Summary of estimated costs and returns per acre
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	97.41	1.0000	97.41	_____
ADJUVANTS	acre	14.17	1.0000	14.17	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.7041	10.02	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	27.4990	71.51	_____
REPAIR & MAINTENANCE	acre	31.44	1.0000	31.44	_____
INTEREST ON OP. CAP.	acre	16.46	1.0000	16.46	_____

TOTAL DIRECT EXPENSES				740.76	_____
RETURNS ABOVE DIRECT EXPENSES				-4.76	_____
TOTAL FIXED EXPENSES				146.03	_____

TOTAL SPECIFIED EXPENSES				886.79	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-150.79	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 11.C Estimated resource use for field operations, per acre
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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 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	lb					0.5000				
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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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	
TOTALS							0.70	0.70	2.89	0.53

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 11.D Estimated costs for field operations, per acre
Clearfield straight levee multi inlet rice
Flood irrigated, 23 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Clearfield	lb	68.90						2.07	70.97	70.97
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40	15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CF(Levees)	lb	10.80						0.32	11.12	11.12
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84	2.84
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Clearpath	lb	30.64						0.92	31.56	31.56
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Newpath	oz	22.98						0.57	23.55	23.55
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86	4.86
Aim	oz	8.48						0.21	8.69	8.69
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	56.00						0.56	56.56	56.56
Dry Rice	bu	64.00						0.64	64.64	64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	10.50	51.11	14.11	12.02			2.07	89.81	170.66
TOTALS		583.81	71.51	31.44	37.54	0.00	16.46	740.76	146.03	886.79

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 11.E Estimated monthly income and expense flows per acre
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	97.41	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	9.77	2.72	3.62	3.62	10.14	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	16.14	12.71	12.71	12.71	8.70	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	5.01	7.88	1.97	1.97	9.45	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.81	4.10	1.47	1.06	1.47	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	233.57	167.33	74.91	70.92	149.76	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-233.57	-167.33	-74.91	-70.92	586.24	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-266.04	-433.37	-508.28	-579.20	7.04	-4.76

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 11.F Estimated returns for various price/yield combinations, per acre
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-404 -550	-385 -531	-367 -513	-348 -494	-330 -476	-312 -458	-293 -439	-275 -421	-256 -402	-238 -384	-220 -366
60	96.00	bu	-361 -507	-339 -485	-316 -462	-294 -440	-272 -418	-250 -396	-228 -374	-206 -352	-184 -330	-162 -308	-140 -286
70	112.00	bu	-318 -464	-292 -438	-266 -412	-240 -386	-214 -360	-189 -335	-163 -309	-137 -283	-111 -257	-86 -232	-60 -206
80	128.00	bu	-274 -420	-245 -391	-216 -362	-186 -332	-157 -303	-127 -273	-98 -244	-68 -214	-39 -185	-9 -155	19 -126
90	144.00	bu	-231 -377	-198 -344	-165 -311	-132 -278	-99 -245	-66 -212	-33 -179	0 -146	33 -112	66 -79	99 -46
100	160.00	bu	-188 -334	-151 -297	-115 -261	-78 -224	-41 -187	-4 -150	32 -113	68 -77	105 -40	142 -3	179 33
110	176.00	bu	-145 -291	-105 -251	-64 -210	-24 -170	16 -129	56 -89	97 -48	137 -8	178 32	218 72	259 113
120	192.00	bu	-102 -248	-58 -204	-14 -160	29 -116	74 -71	118 -27	162 16	206 60	250 104	294 148	339 192
130	208.00	bu	-59 -205	-11 -157	36 -109	84 -62	131 -14	179 33	227 81	275 129	323 177	371 225	418 272
140	224.00	bu	-16 -162	35 -110	86 -59	138 -7	189 43	241 95	292 146	344 198	395 249	447 301	498 352
150	240.00	bu	26 -119	81 -64	137 -8	192 46	247 101	302 156	357 211	413 267	468 322	523 377	578 432

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 2018 input prices.

Table 12.A Estimated costs per acre
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Clearfield	lb	1.06	65.0000	68.90	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF (Levees)	lb	0.90	12.0000	10.80	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.4228	6.02	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	4.8970	12.74	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	15.4779	40.24	_____
REPAIR & MAINTENANCE					
Implements	acre	8.16	1.0000	8.16	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.	acre	15.77	1.0000	15.77	_____
TOTAL DIRECT EXPENSES				713.56	_____
FIXED EXPENSES					
Implements	acre	19.19	1.0000	19.19	_____
Tractors	acre	17.43	1.0000	17.43	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.14	1.0000	76.14	_____
TOTAL FIXED EXPENSES				141.32	_____
TOTAL SPECIFIED EXPENSES				854.88	_____

Note: Cost of production estimates are based on 2018 input prices.

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

Table 12.B Summary of estimated costs and returns per acre
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	160.0000	736.00	_____

TOTAL INCOME				736.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	97.41	1.0000	97.41	_____
ADJUVANTS	acre	14.17	1.0000	14.17	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.5988	8.52	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	23.3194	60.64	_____
REPAIR & MAINTENANCE	acre	28.79	1.0000	28.79	_____
INTEREST ON OP. CAP.	acre	15.77	1.0000	15.77	_____

TOTAL DIRECT EXPENSES				713.56	_____
RETURNS ABOVE DIRECT EXPENSES				22.44	_____
TOTAL FIXED EXPENSES				141.32	_____

TOTAL SPECIFIED EXPENSES				854.88	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-118.88	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 12.C Estimated resource use for field operations, per acre
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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 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	lb					0.5000				
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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 12.D Estimated costs for field operations, per acre
Clearfield straight levee-zero grade rice
Flood irrigated, 19 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Clearfield	lb	68.90						2.07	70.97	70.97
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40	15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CF (Levees)	lb	10.80						0.32	11.12	11.12
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84	2.84
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Clearpath	lb	30.64						0.92	31.56	31.56
Crop Oil Conc. (Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Newpath	oz	22.98						0.57	23.55	23.55
Crop Oil Conc. (Pet.)	pt	4.74						0.12	4.86	4.86
Aim	oz	8.48						0.21	8.69	8.69
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	56.00						0.56	56.56	56.56
Dry Rice	bu	64.00						0.64	64.64	64.64
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre		40.24	11.46	9.53			1.38	62.61	138.75
TOTALS		573.31	60.64	28.79	35.05	0.00	15.77	713.56	141.32	854.88

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 12.E Estimated monthly income and expense flows per acre
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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	736.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	97.41	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	6.91	3.18	4.08	4.08	9.13	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	12.34	10.59	10.59	10.59	7.99	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.09	7.37	1.46	1.46	9.25	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.27	4.04	1.43	1.02	1.46	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	214.95	165.10	72.70	68.71	147.83	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-214.95	-165.10	-72.70	-68.71	588.17	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-247.42	-412.52	-485.22	-553.93	34.24	22.44

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs

Table 12.F Estimated returns for various price/yield combinations, per acre
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	80.00	bu	-376 -518	-358 -499	-340 -481	-321 -463	-303 -444	-284 -426	-266 -407	-248 -389	-229 -371	-211 -352	-192 -334
60	96.00	bu	-333 -475	-311 -453	-289 -431	-267 -408	-245 -386	-223 -364	-201 -342	-179 -320	-157 -298	-135 -276	-113 -254
70	112.00	bu	-290 -432	-265 -406	-239 -380	-213 -354	-187 -329	-162 -303	-136 -277	-110 -251	-84 -226	-58 -200	-33 -174
80	128.00	bu	-247 -389	-218 -359	-188 -330	-159 -300	-129 -271	-100 -241	-71 -212	-41 -182	-12 -153	17 -124	46 -94
90	144.00	bu	-204 -345	-171 -312	-138 -279	-105 -246	-72 -213	-39 -180	-5 -147	27 -114	60 -81	93 -47	126 -14
100	160.00	bu	-161 -302	-124 -266	-87 -229	-51 -192	-14 -155	22 -118	59 -82	96 -45	132 -8	169 28	206 65
110	176.00	bu	-118 -259	-78 -219	-37 -178	2 -138	43 -97	83 -57	124 -16	164 23	205 64	245 104	286 145
120	192.00	bu	-75 -216	-31 -172	12 -128	57 -84	101 -40	145 4	189 48	233 92	277 136	322 180	366 224
130	208.00	bu	-32 -173	15 -125	63 -77	111 -30	159 17	206 65	254 113	302 161	350 209	398 256	446 304
140	224.00	bu	10 -130	62 -79	113 -27	165 24	216 75	268 127	319 178	371 230	422 281	474 333	525 384
150	240.00	bu	53 -87	109 -32	164 22	219 78	274 133	329 188	385 243	440 298	495 354	550 409	605 464

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 2018 input prices.

Table 13.A Estimated costs per acre
Clearfield hybrid countour levee rice
Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	3.5000	22.75	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Clrflld Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CFH(Levee)	lb	1.78	4.2500	7.57	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc.(Pet.)	pt	2.37	4.0000	9.48	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.5475	7.79	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.9886	15.58	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	26.8827	69.89	_____
REPAIR & MAINTENANCE					
Implements	acre	8.32	1.0000	8.32	_____
Tractors	acre	3.10	1.0000	3.10	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.79	1.0000	13.79	_____
INTEREST ON OP. CAP.	acre	17.84	1.0000	17.84	_____
TOTAL DIRECT EXPENSES				786.94	_____
FIXED EXPENSES					
Implements	acre	20.07	1.0000	20.07	_____
Tractors	acre	21.41	1.0000	21.41	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	49.18	1.0000	49.18	_____
TOTAL FIXED EXPENSES				119.22	_____
TOTAL SPECIFIED EXPENSES				906.16	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 13.B Summary of estimated costs and returns per acre
 Clearfield hybrid countour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.25	1.0000	39.25	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	139.65	1.0000	139.65	_____
ADJUVANTS	acre	13.81	1.0000	13.81	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.7235	10.29	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	35.8158	93.13	_____
REPAIR & MAINTENANCE	acre	31.85	1.0000	31.85	_____
INTEREST ON OP. CAP.	acre	17.84	1.0000	17.84	_____

TOTAL DIRECT EXPENSES				786.94	_____
RETURNS ABOVE DIRECT EXPENSES				41.06	_____
TOTAL FIXED EXPENSES				119.22	_____

TOTAL SPECIFIED EXPENSES				906.16	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-78.16	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 13.C Estimated resource use for field operations, per acre
 Clearfield hybrid countour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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 Clrflld 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 CFH(Levee)	lb					4.2500						
Rice Seed Trt/Insect	lbseed					4.2500						
App by Air (5 gal)	appl			1.00	Apr	1.0000						
Clearpath	lb					0.5000						
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						
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	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 II	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 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 13.D Estimated costs for field operations, per acre
 Clearfield hybrid countour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Clrflld Hyb Trt	lb	131.10						3.93	135.03	135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CFH(Levee)	lb	7.57						0.23	7.80	7.80
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01	1.01
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Clearpath	lb	30.64						0.92	31.56	31.56
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	18.69						0.47	19.16	19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68	39.68
NBPT	pt	7.30						0.18	7.48	7.48
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Newpath	oz	22.98						0.57	23.55	23.55
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86	4.86
Aim	oz	8.48						0.21	8.69	8.69
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	4.56						0.09	4.65	4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64	9.64
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	63.00						0.63	63.63	63.63
Dry Rice	bu	72.00						0.72	72.72	72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	4.50	72.73	14.52	33.73			2.84	128.32	182.36
TOTALS		584.87	93.13	31.85	59.25	0.00	17.84	786.94	119.22	906.16

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 13.E Estimated monthly income and expense flows per acre
 Clearfield hybrid countour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.65	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	15.96	7.71	8.61	8.61	10.69	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	18.38	19.06	19.06	19.06	9.03	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.80	8.06	2.15	2.15	9.53	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	8.15	4.48	1.34	0.68	1.64	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	279.37	183.34	68.06	46.01	165.89	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-279.37	-183.34	-68.06	-46.01	662.11	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-311.84	-495.18	-563.24	-609.25	52.86	41.06

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 13.F Estimated returns for various price/yield combinations, per acre
Clearfield hybrid countour levee rice
Flood irrigated, 33 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-408 -527	-387 -506	-366 -486	-346 -465	-325 -444	-304 -423	-284 -403	-263 -382	-242 -361	-221 -341	-201 -320
60	108.00	bu	-359 -479	-334 -454	-310 -429	-285 -404	-260 -379	-235 -354	-210 -329	-185 -305	-161 -280	-136 -255	-111 -230
70	126.00	bu	-311 -430	-282 -401	-253 -372	-224 -343	-195 -314	-166 -285	-137 -256	-108 -227	-79 -198	-50 -169	-21 -140
80	144.00	bu	-262 -382	-229 -348	-196 -315	-163 -282	-130 -249	-97 -216	-64 -183	-31 -150	2 -117	35 -84	68 -50
90	162.00	bu	-214 -333	-177 -296	-139 -259	-102 -221	-65 -184	-28 -147	9 -110	46 -72	83 -35	120 1	158 38
100	180.00	bu	-165 -285	-124 -243	-83 -202	-41 -160	-0 -119	41 -78	82 -36	123 4	165 46	206 87	248 128
110	198.00	bu	-117 -236	-71 -191	-26 -145	19 -100	64 -54	110 -8	155 36	201 82	246 127	292 173	337 218
120	216.00	bu	-69 -188	-19 -138	30 -88	80 -39	129 10	179 60	229 109	278 159	328 209	378 258	427 308
130	234.00	bu	-20 -139	33 -85	87 -32	140 21	194 75	248 129	302 183	356 236	410 290	463 344	517 398
140	252.00	bu	27 -91	85 -33	143 24	201 82	259 140	317 198	375 256	433 314	491 372	549 430	607 488
150	270.00	bu	76 -42	138 19	200 81	262 143	324 205	386 267	448 329	511 391	573 453	635 516	697 578

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 2018 input prices.

Table 14.A Estimated costs per acre
Clearfield hybrid straight levee rice
Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	3.5000	22.75	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Clrflld Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CFH(Levee)	lb	1.78	4.2500	7.57	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.4999	7.12	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.5719	14.50	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	21.9949	57.20	_____
REPAIR & MAINTENANCE					
Implements	acre	8.26	1.0000	8.26	_____
Tractors	acre	2.89	1.0000	2.89	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	17.23	1.0000	17.23	_____
TOTAL DIRECT EXPENSES				758.92	_____
FIXED EXPENSES					
Implements	acre	19.68	1.0000	19.68	_____
Tractors	acre	19.90	1.0000	19.90	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.81	1.0000	76.81	_____
TOTAL FIXED EXPENSES				144.95	_____
TOTAL SPECIFIED EXPENSES				903.87	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 14.B Summary of estimated costs and returns per acre
 Clearfield hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.25	1.0000	39.25	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	139.65	1.0000	139.65	_____
ADJUVANTS	acre	13.81	1.0000	13.81	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.6759	9.62	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	30.5114	79.36	_____
REPAIR & MAINTENANCE	acre	31.57	1.0000	31.57	_____
INTEREST ON OP. CAP.	acre	17.23	1.0000	17.23	_____

TOTAL DIRECT EXPENSES				758.92	_____
RETURNS ABOVE DIRECT EXPENSES				69.08	_____
TOTAL FIXED EXPENSES				144.95	_____

TOTAL SPECIFIED EXPENSES				903.87	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-75.87	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 14.C Estimated resource use for field operations, per acre
 Clearfield hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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 Clrfld 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 CFH(Levee)	lb					4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Clearpath	lb					0.5000				
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				
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	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 II	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 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 14.D Estimated costs for field operations, per acre
 Clearfield hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Clrfld Hyb Trt	lb	131.10						3.93	135.03	135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CFH (Levee)	lb	7.57						0.23	7.80	7.80
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01	1.01
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Clearpath	lb	30.64						0.92	31.56	31.56
Crop Oil Conc. (Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	18.69						0.47	19.16	19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68	39.68
NBPT	pt	7.30						0.18	7.48	7.48
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Newpath	oz	22.98						0.57	23.55	23.55
Crop Oil Conc. (Pet.)	pt	4.74						0.12	4.86	4.86
Aim	oz	8.48						0.21	8.69	8.69
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	4.56						0.09	4.65	4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64	9.64
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	63.00						0.63	63.63	63.63
Dry Rice	bu	72.00						0.72	72.72	72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	2.25	58.96	14.24	22.62			2.23	100.30	180.07
TOTALS		582.62	79.36	31.57	48.14	0.00	17.23	758.92	144.95	903.87

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 14.E Estimated monthly income and expense flows per acre
Clearfield hybrid straight levee rice
Flood irrigated, 27 ac-in., Mississippi, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.65	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	11.95	5.44	6.34	6.34	10.40	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	17.77	14.83	14.83	14.83	8.56	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.97	7.95	2.04	2.04	9.41	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	7.95	4.31	1.21	0.58	1.63	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	272.47	176.56	61.32	39.30	165.00	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-272.47	-176.56	-61.32	-39.30	663.00	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-304.94	-481.50	-542.82	-582.12	80.88	69.08

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 14.F Estimated returns for various price/yield combinations, per acre
 Clearfield hybrid straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-380 -525	-359 -504	-338 -483	-318 -463	-297 -442	-276 -421	-256 -400	-235 -380	-214 -359	-193 -338	-173 -318
60	108.00	bu	-331 -476	-306 -451	-282 -427	-257 -402	-232 -377	-207 -352	-182 -327	-157 -302	-133 -278	-108 -253	-83 -228
70	126.00	bu	-283 -428	-254 -399	-225 -370	-196 -341	-167 -312	-138 -283	-109 -254	-80 -225	-51 -196	-22 -167	6 -138
80	144.00	bu	-234 -379	-201 -346	-168 -313	-135 -280	-102 -247	-69 -214	-36 -181	-3 -147	30 -114	63 -81	96 -48
90	162.00	bu	-186 -331	-149 -294	-111 -256	-74 -219	-37 -182	-0 -145	37 -107	74 -70	111 -33	148 4	186 41
100	180.00	bu	-137 -282	-96 -241	-55 -200	-13 -158	27 -117	69 -75	110 -34	151 6	193 48	234 89	276 131
110	198.00	bu	-89 -234	-43 -188	1 -143	47 -97	92 -52	138 -6	183 38	229 84	274 129	320 175	365 220
120	216.00	bu	-40 -185	8 -136	58 -86	108 -36	157 12	207 62	257 112	306 161	356 211	406 261	455 310
130	234.00	bu	7 -137	61 -83	115 -29	168 23	222 77	276 131	330 185	384 239	438 293	491 346	545 400
140	252.00	bu	55 -89	113 -31	171 26	229 84	287 142	345 200	403 258	461 316	519 374	577 432	635 490
150	270.00	bu	104 -40	166 21	228 83	290 145	352 207	414 269	477 332	539 394	601 456	663 518	725 580

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 2018 input prices.

Table 15.A Estimated costs per acre
 Clearfield hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	3.5000	22.75	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Clrflld Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CFH(Levee)	lb	1.78	4.2500	7.57	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc.(Pet.)	pt	2.37	4.0000	9.48	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.5281	7.52	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.8180	15.13	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	18.7364	48.72	_____
REPAIR & MAINTENANCE					
Implements	acre	8.32	1.0000	8.32	_____
Tractors	acre	3.02	1.0000	3.02	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	17.07	1.0000	17.07	_____
TOTAL DIRECT EXPENSES				748.43	_____
FIXED EXPENSES					
Implements	acre	20.19	1.0000	20.19	_____
Tractors	acre	20.80	1.0000	20.80	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.48	1.0000	76.48	_____
TOTAL FIXED EXPENSES				146.03	_____
TOTAL SPECIFIED EXPENSES				894.46	_____

Note: Cost of production estimates are based on 2018 input prices.

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

Table 15.B Summary of estimated costs and returns per acre
 Clearfield hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.25	1.0000	39.25	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	139.65	1.0000	139.65	_____
ADJUVANTS	acre	13.81	1.0000	13.81	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.7041	10.02	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	27.4990	71.51	_____
REPAIR & MAINTENANCE	acre	31.44	1.0000	31.44	_____
INTEREST ON OP. CAP.	acre	17.07	1.0000	17.07	_____

TOTAL DIRECT EXPENSES				748.43	_____
RETURNS ABOVE DIRECT EXPENSES				79.57	_____
TOTAL FIXED EXPENSES				146.03	_____

TOTAL SPECIFIED EXPENSES				894.46	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-66.46	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 15.C Estimated resource use for field operations, per acre
 Clearfield hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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 Clrflld 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 CFH(Levee)	lb					4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Clearpath	lb					0.5000				
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				
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	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 II	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 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 15.D Estimated costs for field operations, per acre
 Clearfield hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Clrfld Hyb Trt	lb	131.10						3.93	135.03	135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CFH(Levee)	lb	7.57						0.23	7.80	7.80
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01	1.01
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Clearpath	lb	30.64						0.92	31.56	31.56
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	18.69						0.47	19.16	19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68	39.68
NBPT	pt	7.30						0.18	7.48	7.48
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Newpath	oz	22.98						0.57	23.55	23.55
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86	4.86
Aim	oz	8.48						0.21	8.69	8.69
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	4.56						0.09	4.65	4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64	9.64
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	63.00						0.63	63.63	63.63
Dry Rice	bu	72.00						0.72	72.72	72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	10.50	51.11	14.11	12.02			2.07	89.81	170.66
TOTALS		590.87	71.51	31.44	37.54	0.00	17.07	748.43	146.03	894.46

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 15.E Estimated monthly income and expense flows per acre
 Clearfield hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.65	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	9.77	2.72	3.62	3.62	10.14	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	16.14	12.71	12.71	12.71	8.70	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	5.01	7.88	1.97	1.97	9.45	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	8.08	4.20	1.11	0.51	1.62	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	277.08	171.54	56.31	34.32	164.91	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-277.08	-171.54	-56.31	-34.32	663.09	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-309.55	-481.09	-537.40	-571.72	91.37	79.57

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 15.F Estimated returns for various price/yield combinations, per acre
 Clearfield hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-369 -515	-349 -495	-328 -474	-307 -453	-286 -432	-266 -412	-245 -391	-224 -370	-204 -350	-183 -329	-162 -308
60	108.00	bu	-321 -467	-296 -442	-271 -417	-246 -392	-221 -367	-197 -343	-172 -318	-147 -293	-122 -268	-97 -243	-72 -218
70	126.00	bu	-272 -418	-243 -389	-214 -360	-185 -331	-156 -302	-127 -273	-98 -244	-69 -215	-40 -187	-12 -158	16 -129
80	144.00	bu	-224 -370	-191 -337	-158 -304	-125 -271	-91 -237	-58 -204	-25 -171	7 -138	40 -105	73 -72	106 -39
90	162.00	bu	-175 -321	-138 -284	-101 -247	-64 -210	-26 -172	10 -135	47 -98	84 -61	122 -23	159 13	196 50
100	180.00	bu	-127 -273	-86 -232	-44 -190	-3 -149	38 -107	79 -66	120 -25	162 16	203 57	245 99	286 140
110	198.00	bu	-78 -224	-33 -179	12 -133	57 -88	103 -42	148 2	194 48	239 93	285 139	330 184	376 230
120	216.00	bu	-30 -176	19 -126	68 -77	118 -27	168 22	217 71	267 121	317 171	366 220	416 270	466 320
130	234.00	bu	17 -128	71 -74	125 -20	179 33	233 87	287 141	340 194	394 248	448 302	502 356	556 410
140	252.00	bu	66 -79	124 -21	182 36	240 94	298 152	356 210	414 268	472 326	530 384	588 442	646 500
150	270.00	bu	114 -31	176 30	239 93	301 155	363 217	425 279	487 341	549 403	611 465	673 527	735 589

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 2018 input prices.

Table 16.A Estimated costs per acre
 Clearfield hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	3.5000	22.75	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	3.3220	48.17	_____
NBPT	pt	9.12	0.8000	7.30	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Clearpath	lb	61.27	0.5000	30.64	_____
Newpath	oz	3.83	6.0000	22.98	_____
Aim	oz	5.65	1.5000	8.48	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Clrflld Hyb Trt	lb	5.70	23.0000	131.10	_____
Rice Seed CFH(Levee)	lb	1.78	4.2500	7.57	_____
Rice Seed Trt/Insect	lbseed	0.23	4.2500	0.98	_____
ADJUVANTS					
MSO	pt	2.09	1.5000	3.14	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc.(Pet.)	pt	2.37	4.0000	9.48	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
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	14.23	0.4228	6.02	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	4.8970	12.74	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	15.4779	40.24	_____
REPAIR & MAINTENANCE					
Implements	acre	8.16	1.0000	8.16	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.	acre	16.38	1.0000	16.38	_____
TOTAL DIRECT EXPENSES				721.23	_____
FIXED EXPENSES					
Implements	acre	19.19	1.0000	19.19	_____
Tractors	acre	17.43	1.0000	17.43	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.14	1.0000	76.14	_____
TOTAL FIXED EXPENSES				141.32	_____
TOTAL SPECIFIED EXPENSES				862.55	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 16.B Summary of estimated costs and returns per acre
 Clearfield hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	180.0000	828.00	_____

TOTAL INCOME				828.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.25	1.0000	39.25	_____
FERTILIZERS	acre	74.59	1.0000	74.59	_____
HERBICIDES	acre	128.48	1.0000	128.48	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	139.65	1.0000	139.65	_____
ADJUVANTS	acre	13.81	1.0000	13.81	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
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	14.23	0.5988	8.52	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	23.3194	60.64	_____
REPAIR & MAINTENANCE	acre	28.79	1.0000	28.79	_____
INTEREST ON OP. CAP.	acre	16.38	1.0000	16.38	_____

TOTAL DIRECT EXPENSES				721.23	_____
RETURNS ABOVE DIRECT EXPENSES				106.77	_____
TOTAL FIXED EXPENSES				141.32	_____

TOTAL SPECIFIED EXPENSES				862.55	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-34.55	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 16.C Estimated resource use for field operations, per acre
 Clearfield hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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 Clrflld 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 CFH(Levee)	lb					4.2500				
Rice Seed Trt/Insect	lbseed					4.2500				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Clearpath	lb					0.5000				
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				
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	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 II	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 2018 input prices.

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

Table 16.D Estimated costs for field operations, per acre
 Clearfield hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Clrflld Hyb Trt	lb	131.10						3.93	135.03	135.03
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed CFH(Levee)	lb	7.57						0.23	7.80	7.80
Rice Seed Trt/Insect	lbseed	0.98						0.03	1.01	1.01
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Clearpath	lb	30.64						0.92	31.56	31.56
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	18.69						0.47	19.16	19.16
Urea, Solid (46% N)	cwt	38.71						0.97	39.68	39.68
NBPT	pt	7.30						0.18	7.48	7.48
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Newpath	oz	22.98						0.57	23.55	23.55
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86	4.86
Aim	oz	8.48						0.21	8.69	8.69
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Clincher SF	oz	17.55						0.35	17.90	17.90
MSO	pt	2.09						0.04	2.13	2.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	4.56						0.09	4.65	4.65
Urea, Solid (46% N)	cwt	9.45						0.19	9.64	9.64
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	63.00						0.63	63.63	63.63
Dry Rice	bu	72.00						0.72	72.72	72.72
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre		40.24	11.46	9.53			1.38	62.61	138.75
TOTALS		580.37	60.64	28.79	35.05	0.00	16.38	721.23	141.32	862.55

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 16.E Estimated monthly income and expense flows per acre
 Clearfield hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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	828.00	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	7.50	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.14	9.45	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.95	31.46	17.55	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	139.65	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	2.09	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69	4.56	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	3.58	0.00	0.00	0.00	0.00	0.00	6.91	3.18	4.08	4.08	9.13	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	12.34	10.59	10.59	10.59	7.99	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.09	7.37	1.46	1.46	9.25	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	7.54	4.14	1.07	0.47	1.61	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	258.46	169.31	54.10	32.11	162.98	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-258.46	-169.31	-54.10	-32.11	665.02	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-290.93	-460.24	-514.34	-546.45	118.57	106.77

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 16.F Estimated returns for various price/yield combinations, per acre
 Clearfield hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	90.00	bu	-342 -483	-321 -463	-301 -442	-280 -421	-259 -401	-239 -380	-218 -359	-197 -338	-176 -318	-156 -297	-135 -276
60	108.00	bu	-294 -435	-269 -410	-244 -385	-219 -360	-194 -336	-169 -311	-145 -286	-120 -261	-95 -236	-70 -211	-45 -187
70	126.00	bu	-245 -386	-216 -357	-187 -328	-158 -300	-129 -271	-100 -242	-71 -213	-42 -184	-13 -155	15 -126	44 -97
80	144.00	bu	-197 -338	-164 -305	-130 -272	-97 -239	-64 -206	-31 -172	1 -139	34 -106	67 -73	100 -40	134 -7
90	162.00	bu	-148 -290	-111 -252	-74 -215	-36 -178	0 -140	37 -103	74 -66	112 -29	149 8	186 45	223 82
100	180.00	bu	-100 -241	-58 -200	-17 -158	23 -117	65 -75	106 -34	148 6	189 48	230 89	272 131	313 172
110	198.00	bu	-51 -193	-6 -147	39 -102	84 -56	130 -10	175 34	221 80	267 125	312 171	358 216	403 262
120	216.00	bu	-3 -144	46 -94	96 -45	145 4	195 54	245 103	294 153	344 203	394 252	443 302	493 352
130	234.00	bu	45 -96	98 -42	152 11	206 65	260 119	314 172	368 226	421 280	475 334	529 388	583 442
140	252.00	bu	93 -47	151 10	209 68	267 126	325 184	383 242	441 300	499 358	557 415	615 473	673 531
150	270.00	bu	142 0	204 62	266 124	328 187	390 249	452 311	514 373	576 435	638 497	700 559	763 621

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 2018 input prices.

Table 17.A Estimated costs per acre
 Provisia contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Provisia	oz	0.78	31.0000	24.18	_____
Aim	oz	5.65	1.0000	5.65	_____
Permit	oz	22.46	0.7500	16.85	_____
Regiment	oz	44.90	0.2500	11.23	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Seed Provisia	lb	1.15	77.0000	88.55	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.09	0.5000	1.05	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Dyne-A-Pak	pt	4.80	0.2500	1.20	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.5475	7.79	_____
Harvesters	hour	14.23	0.2030	2.89	_____
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	14.25	0.5633	8.03	_____
DIESEL FUEL					
Tractors	gal	2.60	5.9886	15.58	_____
Harvesters	gal	2.60	3.3975	8.83	_____
Flood Irr.	gal	2.60	26.8827	69.89	_____
REPAIR & MAINTENANCE					
Implements	acre	8.70	1.0000	8.70	_____
Tractors	acre	3.10	1.0000	3.10	_____
Harvesters	acre	7.66	1.0000	7.66	_____
Flood Irr.	acre	13.79	1.0000	13.79	_____
INTEREST ON OP. CAP.	acre	17.13	1.0000	17.13	_____
TOTAL DIRECT EXPENSES				772.95	_____
FIXED EXPENSES					
Implements	acre	20.72	1.0000	20.72	_____
Tractors	acre	21.41	1.0000	21.41	_____
Harvesters	acre	32.95	1.0000	32.95	_____
Flood Irr.	acre	49.18	1.0000	49.18	_____
TOTAL FIXED EXPENSES				124.26	_____
TOTAL SPECIFIED EXPENSES				897.21	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 17.B Summary of estimated costs and returns per acre
 Provisia contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	156.0000	717.60	_____

TOTAL INCOME				717.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	106.74	1.0000	106.74	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	106.26	1.0000	106.26	_____
ADJUVANTS	acre	13.28	1.0000	13.28	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.7506	10.68	_____
RICE MGT. LABOR	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR	hour	14.25	0.5633	8.03	_____
DIESEL FUEL	gal	2.60	36.2688	94.30	_____
REPAIR & MAINTENANCE	acre	33.25	1.0000	33.25	_____
INTEREST ON OP. CAP.	acre	17.13	1.0000	17.13	_____

TOTAL DIRECT EXPENSES				772.95	_____
RETURNS ABOVE DIRECT EXPENSES				-55.35	_____
TOTAL FIXED EXPENSES				124.26	_____

TOTAL SPECIFIED EXPENSES				897.21	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-179.61	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 17.C Estimated resource use for field operations, per acre
 Provisia contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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	
TOTALS							0.75	0.75	6.10	0.56

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 17.D Estimated costs for field operations, per acre
 Provisia contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	8.57
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	2.06
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	7.35
Rice Seed Provisia	lb	74.75						2.24	76.99	76.99
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40	15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	2.39
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
Class Act NG	pt	1.19						0.04	1.23	1.23
MSO	pt	1.05						0.03	1.08	1.08
Seed Levees										
Rice Seed Provisia	lb	13.80						0.41	14.21	14.21
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84	2.84
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Provisia	oz	12.09						0.36	12.45	12.45
Aim	oz	5.65						0.17	5.82	5.82
Permit	oz	16.85						0.51	17.36	17.36
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Provisia	oz	12.09						0.30	12.39	12.39
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86	4.86
Rice Management										
RICE MGT. LABOR	hour				2.72			0.07	2.79	2.79
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Regiment	oz	11.23						0.22	11.45	11.45
Dyne-A-Pak	pt	1.20						0.02	1.22	1.22
Rice Management										
RICE MGT. LABOR	hour				4.53			0.09	4.62	4.62
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				4.53			0.07	4.60	4.60
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (CL)	25' Rigid		8.83	10.47	5.49			0.25	25.04	37.83
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	0.67
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.55	55.15	55.15
Dry Rice	bu	62.40						0.62	63.02	63.02
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	11.35
Flood Irr.	acre	4.50	72.73	14.52	33.73			2.84	128.32	54.04
TOTALS		561.03	94.30	33.25	67.24	0.00	17.13	772.95	124.26	897.21

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 17.E Estimated monthly income and expense flows per acre
 Provisia contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

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	717.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	71.90	12.09	11.23	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	106.26	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	1.20	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	15.96	9.52	11.33	11.33	11.43	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	18.38	19.06	19.06	19.06	10.20	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.80	8.06	2.15	2.15	10.93	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	7.26	3.95	1.60	1.27	1.50	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	249.04	161.14	82.07	85.37	151.06	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-249.04	-161.14	-82.07	-85.37	566.54	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-281.51	-442.65	-524.72	-610.09	-43.55	-55.35

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 17.F Estimated returns for various price/yield combinations, per acre
 Provisia contour levee rice
 Flood irrigated, 33 ac-in., Mississippi, 2019

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	-----dollars-----										
50	78.00	bu	-444 -569	-426 -551	-408 -533	-390 -515	-373 -497	-355 -479	-337 -461	-319 -443	-301 -425	-283 -407	-265 -389
60	93.60	bu	-402 -527	-381 -505	-359 -483	-338 -462	-316 -440	-295 -419	-273 -397	-252 -376	-230 -354	-209 -333	-187 -311
70	109.20	bu	-360 -485	-335 -459	-310 -434	-285 -409	-260 -384	-235 -359	-210 -334	-184 -309	-159 -284	-134 -258	-109 -233
80	124.80	bu	-318 -443	-290 -414	-261 -385	-232 -356	-203 -328	-175 -299	-146 -270	-117 -242	-89 -213	-60 -184	-31 -155
90	140.40	bu	-276 -401	-244 -368	-212 -336	-179 -304	-147 -271	-115 -239	-83 -207	-50 -174	-18 -142	13 -110	46 -78
100	156.00	bu	-234 -359	-198 -323	-162 -287	-127 -251	-91 -215	-55 -179	-19 -143	16 -107	52 -71	88 -36	124 -0
110	171.60	bu	-192 -317	-153 -277	-113 -238	-74 -198	-34 -159	4 -119	44 -80	83 -40	122 -1	162 38	201 77
120	187.20	bu	-150 -275	-107 -231	-64 -188	-21 -145	21 -102	64 -59	107 -16	150 26	193 69	236 112	279 155
130	202.80	bu	-108 -233	-62 -186	-15 -139	31 -93	77 -46	124 0	171 46	217 93	264 140	311 186	357 233
140	218.40	bu	-66 -190	-16 -140	33 -90	83 -40	134 9	184 60	234 110	284 160	335 210	385 261	435 311
150	234.00	bu	-24 -148	29 -95	82 -41	136 12	190 66	244 120	298 173	352 227	405 281	459 335	513 389

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 2018 input prices.

Table 18.A Estimated costs per acre
 Provisia straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Provisia	oz	0.78	31.0000	24.18	_____
Aim	oz	5.65	1.0000	5.65	_____
Permit	oz	22.46	0.7500	16.85	_____
Regiment	oz	44.90	0.2500	11.23	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Seed Provisia	lb	1.15	77.0000	88.55	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
ADJUVANTS					
MSO	pt	2.09	0.5000	1.05	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Dyne-A-Pak	pt	4.80	0.2500	1.20	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.4999	7.12	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.5719	14.50	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	21.9949	57.20	_____
REPAIR & MAINTENANCE					
Implements	acre	8.26	1.0000	8.26	_____
Tractors	acre	2.89	1.0000	2.89	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	16.34	1.0000	16.34	_____
TOTAL DIRECT EXPENSES				734.19	_____
FIXED EXPENSES					
Implements	acre	19.68	1.0000	19.68	_____
Tractors	acre	19.90	1.0000	19.90	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.81	1.0000	76.81	_____
TOTAL FIXED EXPENSES				144.95	_____
TOTAL SPECIFIED EXPENSES				879.14	_____

Note: Cost of production estimates are based on 2018 input prices.

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

Table 18.B Summary of estimated costs and returns per acre
 Provisia straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	156.0000	717.60	_____

TOTAL INCOME				717.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	106.74	1.0000	106.74	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	106.26	1.0000	106.26	_____
ADJUVANTS	acre	13.28	1.0000	13.28	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.6759	9.62	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	30.5114	79.36	_____
REPAIR & MAINTENANCE	acre	31.57	1.0000	31.57	_____
INTEREST ON OP. CAP.	acre	16.34	1.0000	16.34	_____

TOTAL DIRECT EXPENSES				734.19	_____
RETURNS ABOVE DIRECT EXPENSES				-16.59	_____
TOTAL FIXED EXPENSES				144.95	_____

TOTAL SPECIFIED EXPENSES				879.14	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-161.54	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 18.C Estimated resource use for field operations, per acre
 Provisia straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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	
TOTALS							0.67	0.67	4.07	0.53

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 18.D Estimated costs for field operations, per acre
 Provisia straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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						0.20	3.53		3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	8.57	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	2.06	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99		6.99
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	7.35	15.19
Rice Seed Provisia	lb	74.75						2.24	76.99		76.99
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40		15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	2.39	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Command 3ME	pt	19.93						0.60	20.53		20.53
Sharpen	oz	12.90						0.39	13.29		13.29
MSO	pt	1.05						0.03	1.08		1.08
Class Act NG	pt	1.19						0.04	1.23		1.23
Seed Levees											
Rice Seed Provisia	lb	13.80						0.41	14.21		14.21
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84		2.84
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Provisia	oz	12.09						0.36	12.45		12.45
Aim	oz	5.65						0.17	5.82		5.82
Permit	oz	16.85						0.51	17.36		17.36
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88		4.88
App Fert by Air	cwt	7.00						0.18	7.18		7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43		7.43
DAP	cwt	11.88						0.30	12.18		12.18
Rice Consultant	acre	8.00						0.20	8.20		8.20
App Fert by Air	cwt	17.50						0.44	17.94		17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16		37.16
NBPT	pt	6.84						0.17	7.01		7.01
App by Air (10 gal)	appl	9.00						0.23	9.23		9.23
Provisia	oz	12.09						0.30	12.39		12.39
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86		4.86
Rice Management											
RICE MGT. LABOR	hour				0.91			0.02	0.93		0.93
App by Air (5 gal)	appl	3.25						0.07	3.32		3.32
Regiment	oz	11.23						0.22	11.45		11.45
Dyne-A-Pak	pt	1.20						0.02	1.22		1.22
Rice Management											
RICE MGT. LABOR	hour				1.81			0.04	1.85		1.85
App Fert by Air	cwt	10.50						0.21	10.71		10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18		22.18
Rice Management											
RICE MGT. LABOR	hour				1.81			0.03	1.84		1.84
App by Air (5 gal)	appl	6.50						0.10	6.60		6.60
Stratego	pt	29.19						0.44	29.63		29.63
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air (3 gal)	appl	7.50						0.11	7.61		7.61
Warrior II	oz	8.01						0.12	8.13		8.13
Rice Management											
RICE MGT. LABOR	hour				1.81			0.02	1.83		1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	32.79	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	0.67	1.49
Handling & Storage											
HAND LABOR	hour				2.27			0.02	2.29		2.29
Haul Rice	bu	54.60						0.55	55.15		55.15
Dry Rice	bu	62.40						0.62	63.02		63.02
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	11.35	23.15
Flood Irr.	acre	2.25	58.96	14.24	22.62			2.23	100.30	79.77	180.07
TOTALS		558.78	79.36	31.57	48.14	0.00	16.34	734.19	144.95	879.14	

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 18.E Estimated monthly income and expense flows per acre
 Provisia straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

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	717.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	71.90	12.09	11.23	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	106.26	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	1.20	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	11.95	5.44	6.34	6.34	10.40	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	17.77	14.83	14.83	14.83	8.56	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.97	7.95	2.04	2.04	9.41	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	7.06	3.73	1.42	1.13	1.45	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	242.14	152.50	72.56	75.90	146.82	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-242.14	-152.50	-72.56	-75.90	570.78	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-274.61	-427.11	-499.67	-575.57	-4.79	-16.59

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 18.F Estimated returns for various price/yield combinations, per acre
 Provisia straight levee rice
 Flood irrigated, 27 ac-in., Mississippi, 2019

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
Rice	3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75		
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-406 -550	-388 -533	-370 -515	-352 -497	-334 -479	-316 -461	-298 -443	-280 -425	-262 -407	-244 -389	-226 -371
60	93.60	bu	-364 -508	-342 -487	-320 -465	-299 -444	-277 -422	-256 -401	-234 -379	-213 -358	-191 -336	-170 -315	-148 -293
70	109.20	bu	-321 -466	-296 -441	-271 -416	-246 -391	-221 -366	-196 -341	-171 -316	-146 -291	-121 -266	-95 -240	-70 -215
80	124.80	bu	-279 -424	-251 -396	-222 -367	-193 -338	-165 -310	-136 -281	-107 -252	-79 -224	-50 -195	-21 -166	7 -137
90	140.40	bu	-237 -382	-205 -350	-173 -318	-141 -286	-108 -253	-76 -221	-44 -189	-11 -156	20 -124	52 -92	84 -60
100	156.00	bu	-195 -340	-160 -305	-124 -269	-88 -233	-52 -197	-16 -161	19 -125	55 -89	91 -53	126 -18	162 17
110	171.60	bu	-153 -298	-114 -259	-75 -220	-35 -180	3 -141	43 -101	82 -62	122 -22	161 16	201 56	240 95
120	187.20	bu	-111 -256	-68 -213	-25 -170	17 -127	60 -84	103 -41	146 1	189 44	232 87	275 130	318 173
130	202.80	bu	-69 -214	-23 -168	23 -121	69 -74	116 -28	163 18	209 64	256 111	303 158	349 204	396 251
140	218.40	bu	-27 -172	22 -122	72 -72	122 -22	172 28	223 78	273 128	323 178	373 228	424 279	474 329
150	234.00	bu	14 -130	67 -77	121 -23	175 30	229 84	283 138	336 191	390 245	444 299	498 353	552 407

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 2018 input prices.

Table 19.A Estimated costs per acre
 Provisia straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Provisia	oz	0.78	31.0000	24.18	_____
Aim	oz	5.65	1.0000	5.65	_____
Permit	oz	22.46	0.7500	16.85	_____
Regiment	oz	44.90	0.2500	11.23	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Seed Provisia	lb	1.15	77.0000	88.55	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
ADJUVANTS					
MSO	pt	2.09	0.5000	1.05	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Dyne-A-Pak	pt	4.80	0.2500	1.20	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.5281	7.52	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	5.8180	15.13	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	18.7364	48.72	_____
REPAIR & MAINTENANCE					
Implements	acre	8.32	1.0000	8.32	_____
Tractors	acre	3.02	1.0000	3.02	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	16.18	1.0000	16.18	_____
TOTAL DIRECT EXPENSES				723.70	_____
FIXED EXPENSES					
Implements	acre	20.19	1.0000	20.19	_____
Tractors	acre	20.80	1.0000	20.80	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.48	1.0000	76.48	_____
TOTAL FIXED EXPENSES				146.03	_____
TOTAL SPECIFIED EXPENSES				869.73	_____

Note: Cost of production estimates are based on 2018 input prices.

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

Table 19.B Summary of estimated costs and returns per acre
 Provisia straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	156.0000	717.60	_____

TOTAL INCOME				717.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	106.74	1.0000	106.74	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	106.26	1.0000	106.26	_____
ADJUVANTS	acre	13.28	1.0000	13.28	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.7041	10.02	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	27.4990	71.51	_____
REPAIR & MAINTENANCE	acre	31.44	1.0000	31.44	_____
INTEREST ON OP. CAP.	acre	16.18	1.0000	16.18	_____

TOTAL DIRECT EXPENSES				723.70	_____
RETURNS ABOVE DIRECT EXPENSES				-6.10	_____
TOTAL FIXED EXPENSES				146.03	_____

TOTAL SPECIFIED EXPENSES				869.73	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-152.13	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 19.C Estimated resource use for field operations, per acre
 Provisia straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 19.D Estimated costs for field operations, per acre
 Provisia straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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						0.20	3.53	3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76	6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99	6.99
2,4-D Amine 4	pt	4.80						0.19	4.99	4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	15.19
Rice Seed Provisia	lb	74.75						2.24	76.99	76.99
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40	15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61	4.61
Command 3ME	pt	19.93						0.60	20.53	20.53
Sharpen	oz	12.90						0.39	13.29	13.29
MSO	pt	1.05						0.03	1.08	1.08
Class Act NG	pt	1.19						0.04	1.23	1.23
Seed Levees										
Rice Seed Provisia	lb	13.80						0.41	14.21	14.21
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84	2.84
App by Air (5 gal)	appl	6.50						0.20	6.70	6.70
Provisia	oz	12.09						0.36	12.45	12.45
Aim	oz	5.65						0.17	5.82	5.82
Permit	oz	16.85						0.51	17.36	17.36
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88	4.88
App Fert by Air	cwt	7.00						0.18	7.18	7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43	7.43
DAP	cwt	11.88						0.30	12.18	12.18
Rice Consultant	acre	8.00						0.20	8.20	8.20
App Fert by Air	cwt	17.50						0.44	17.94	17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16	37.16
NBPT	pt	6.84						0.17	7.01	7.01
App by Air (10 gal)	appl	9.00						0.23	9.23	9.23
Provisia	oz	12.09						0.30	12.39	12.39
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86	4.86
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.07	3.32	3.32
Regiment	oz	11.23						0.22	11.45	11.45
Dyne-A-Pak	pt	1.20						0.02	1.22	1.22
Rice Management										
RICE MGT. LABOR	hour				1.81			0.04	1.85	1.85
App Fert by Air	cwt	10.50						0.21	10.71	10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18	22.18
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App by Air (5 gal)	appl	6.50						0.10	6.60	6.60
Stratego	pt	29.19						0.44	29.63	29.63
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air (3 gal)	appl	7.50						0.11	7.61	7.61
Warrior II	oz	8.01						0.12	8.13	8.13
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	1.49
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.55	55.15	55.15
Dry Rice	bu	62.40						0.62	63.02	63.02
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	23.15
Flood Irr.	acre	10.50	51.11	14.11	12.02			2.07	89.81	170.66
TOTALS		567.03	71.51	31.44	37.54	0.00	16.18	723.70	146.03	869.73

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 19.E Estimated monthly income and expense flows per acre
 Provisia straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

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	717.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	71.90	12.09	11.23	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	8.01	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	106.26	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	1.20	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	9.77	2.72	3.62	3.62	10.14	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	16.14	12.71	12.71	12.71	8.70	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	5.01	7.88	1.97	1.97	9.45	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	7.19	3.62	1.32	1.06	1.44	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	246.75	147.48	67.55	70.92	146.73	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-246.75	-147.48	-67.55	-70.92	570.87	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-279.22	-426.70	-494.25	-565.17	5.70	-6.10

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 19.F Estimated returns for various price/yield combinations, per acre
 Provisia straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-395 -541	-377 -523	-359 -505	-341 -487	-323 -469	-305 -451	-287 -433	-269 -415	-251 -398	-234 -380	-216 -362
60	93.60	bu	-353 -499	-331 -478	-310 -456	-288 -434	-267 -413	-245 -391	-224 -370	-202 -348	-181 -327	-159 -305	-138 -284
70	109.20	bu	-311 -457	-286 -432	-261 -407	-236 -382	-211 -357	-185 -331	-160 -306	-135 -281	-110 -256	-85 -231	-60 -206
80	124.80	bu	-269 -415	-240 -386	-212 -358	-183 -329	-154 -300	-125 -272	-97 -243	-68 -214	-39 -185	-11 -157	17 -128
90	140.40	bu	-227 -373	-195 -341	-162 -308	-130 -276	-98 -244	-66 -212	-33 -179	-1 -147	30 -115	63 -82	95 -50
100	156.00	bu	-185 -331	-149 -295	-113 -259	-77 -223	-41 -188	-6 -152	29 -116	65 -80	101 -44	137 -8	173 27
110	171.60	bu	-143 -289	-104 -250	-64 -210	-25 -171	14 -131	53 -92	93 -52	132 -13	172 26	211 65	251 105
120	187.20	bu	-101 -247	-58 -204	-15 -161	27 -118	70 -75	113 -32	156 10	199 53	242 96	286 139	329 183
130	202.80	bu	-59 -205	-12 -158	33 -112	80 -65	127 -18	173 27	220 74	267 120	313 167	360 214	406 260
140	218.40	bu	-17 -163	32 -113	82 -63	133 -12	183 37	233 87	283 137	334 188	384 238	434 288	484 338
150	234.00	bu	24 -121	78 -67	132 -13	185 39	239 93	293 147	347 201	401 255	455 309	508 362	562 416

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 2018 input prices.

Table 20.A Estimated costs per acre
 Provisia straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	4.5000	29.25	_____
App by Air (10 gal)	appl	9.00	1.0000	9.00	_____
App by Air (3 gal)	appl	5.00	1.5000	7.50	_____
FERTILIZERS					
Amm Sulfate (21% N)	cwt	14.50	0.5000	7.25	_____
DAP	cwt	23.76	0.5000	11.88	_____
Urea, Solid (46% N)	cwt	14.50	4.0000	58.00	_____
NBPT	pt	9.12	0.7500	6.84	_____
FUNGICIDES					
Stratego	pt	24.58	1.1875	29.19	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	80.0000	11.20	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Command 3ME	pt	19.93	1.0000	19.93	_____
Sharpen	oz	6.45	2.0000	12.90	_____
Provisia	oz	0.78	31.0000	24.18	_____
Aim	oz	5.65	1.0000	5.65	_____
Permit	oz	22.46	0.7500	16.85	_____
Regiment	oz	44.90	0.2500	11.23	_____
INSECTICIDES					
Warrior II	oz	2.67	3.0000	8.01	_____
SEED/PLANTS					
Rice Seed Provisia	lb	1.15	77.0000	88.55	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
ADJUVANTS					
MSO	pt	2.09	0.5000	1.05	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.37	4.0000	9.48	_____
Dyne-A-Pak	pt	4.80	0.2500	1.20	_____
Surfactant	pt	3.59	0.1000	0.36	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	5.0000	35.00	_____
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	14.23	0.4228	6.02	_____
Harvesters	hour	14.23	0.1760	2.50	_____
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	14.24	0.5389	7.68	_____
DIESEL FUEL					
Tractors	gal	2.60	4.8970	12.74	_____
Harvesters	gal	2.60	2.9444	7.66	_____
Flood Irr.	gal	2.60	15.4779	40.24	_____
REPAIR & MAINTENANCE					
Implements	acre	8.16	1.0000	8.16	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	6.64	1.0000	6.64	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.	acre	15.49	1.0000	15.49	_____
TOTAL DIRECT EXPENSES				696.50	_____
FIXED EXPENSES					
Implements	acre	19.19	1.0000	19.19	_____
Tractors	acre	17.43	1.0000	17.43	_____
Harvesters	acre	28.56	1.0000	28.56	_____
Flood Irr.	acre	76.14	1.0000	76.14	_____
TOTAL FIXED EXPENSES				141.32	_____
TOTAL SPECIFIED EXPENSES				837.82	_____

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.

Table 20.B Summary of estimated costs and returns per acre
 Provisia straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.60	156.0000	717.60	_____

TOTAL INCOME				717.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	83.97	1.0000	83.97	_____
FUNGICIDES	acre	29.19	1.0000	29.19	_____
HERBICIDES	acre	106.74	1.0000	106.74	_____
INSECTICIDES	acre	8.01	1.0000	8.01	_____
SEED/PLANTS	acre	106.26	1.0000	106.26	_____
ADJUVANTS	acre	13.28	1.0000	13.28	_____
CUSTOM FERTILIZE	acre	35.00	1.0000	35.00	_____
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	14.23	0.5988	8.52	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	14.24	0.5389	7.68	_____
DIESEL FUEL	gal	2.60	23.3194	60.64	_____
REPAIR & MAINTENANCE	acre	28.79	1.0000	28.79	_____
INTEREST ON OP. CAP.	acre	15.49	1.0000	15.49	_____

TOTAL DIRECT EXPENSES				696.50	_____
RETURNS ABOVE DIRECT EXPENSES				21.10	_____
TOTAL FIXED EXPENSES				141.32	_____

TOTAL SPECIFIED EXPENSES				837.82	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-120.22	_____

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 20.C Estimated resource use for field operations, per acre
 Provisia straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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				
Stratego	pt					1.1875				
Surfactant	pt					0.1000				
App by Air (3 gal)	appl			1.50	Jul	1.5000				
Warrior II	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 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 20.D Estimated costs for field operations, per acre
 Provisia straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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						0.20	3.53		3.53
Field Cultivate Fld	32'		2.81	1.57	2.53			0.41	7.32	8.57	15.89
Harrow - Folding	40'		1.17	0.50	1.05			0.16	2.88	2.06	4.94
App by Air (5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	6.72						0.27	6.99		6.99
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Grain Drill	24'		2.37	2.40	2.84			0.23	7.84	7.35	15.19
Rice Seed Provisia	lb	74.75						2.24	76.99		76.99
Rice Seed Trt/Insect	lbseed	14.95						0.45	15.40		15.40
Roller/Cultipacker	30'		1.50	0.52	1.35			0.10	3.47	2.39	5.86
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Command 3ME	pt	19.93						0.60	20.53		20.53
Sharpen	oz	12.90						0.39	13.29		13.29
MSO	pt	1.05						0.03	1.08		1.08
Class Act NG	pt	1.19						0.04	1.23		1.23
Seed Levees											
Rice Seed Provisia	lb	13.80						0.41	14.21		14.21
Rice Seed Trt/Insect	lbseed	2.76						0.08	2.84		2.84
App by Air (5 gal)	appl	6.50						0.20	6.70		6.70
Provisia	oz	12.09						0.36	12.45		12.45
Aim	oz	5.65						0.17	5.82		5.82
Permit	oz	16.85						0.51	17.36		17.36
Crop Oil Conc.(Pet.)	pt	4.74						0.14	4.88		4.88
App Fert by Air	cwt	7.00						0.18	7.18		7.18
Amm Sulfate (21% N)	cwt	7.25						0.18	7.43		7.43
DAP	cwt	11.88						0.30	12.18		12.18
Rice Consultant	acre	8.00						0.20	8.20		8.20
App Fert by Air	cwt	17.50						0.44	17.94		17.94
Urea, Solid (46% N)	cwt	36.25						0.91	37.16		37.16
NBPT	pt	6.84						0.17	7.01		7.01
App by Air (10 gal)	appl	9.00						0.23	9.23		9.23
Provisia	oz	12.09						0.30	12.39		12.39
Crop Oil Conc.(Pet.)	pt	4.74						0.12	4.86		4.86
Rice Management											
RICE MGT. LABOR	hour				0.91			0.02	0.93		0.93
App by Air (5 gal)	appl	3.25						0.07	3.32		3.32
Regiment	oz	11.23						0.22	11.45		11.45
Dyne-A-Pak	pt	1.20						0.02	1.22		1.22
Rice Management											
RICE MGT. LABOR	hour				1.81			0.04	1.85		1.85
App Fert by Air	cwt	10.50						0.21	10.71		10.71
Urea, Solid (46% N)	cwt	21.75						0.43	22.18		22.18
Rice Management											
RICE MGT. LABOR	hour				1.81			0.03	1.84		1.84
App by Air (5 gal)	appl	6.50						0.10	6.60		6.60
Stratego	pt	29.19						0.44	29.63		29.63
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air (3 gal)	appl	7.50						0.11	7.61		7.61
Warrior II	oz	8.01						0.12	8.13		8.13
Rice Management											
RICE MGT. LABOR	hour				1.81			0.02	1.83		1.83
Header - Draper (SL)	25' Rigid		7.66	9.07	4.75			0.21	21.69	32.79	54.48
Grain Cart Rice	700 bu		0.33	0.18	0.30			0.01	0.82	0.67	1.49
Handling & Storage											
HAND LABOR	hour				2.27			0.02	2.29		2.29
Haul Rice	bu	54.60						0.55	55.15		55.15
Dry Rice	bu	62.40						0.62	63.02		63.02
Disk Heavy	28'		4.56	3.09	4.09			0.06	11.80	11.35	23.15
Flood Irr.	acre		40.24	11.46	9.53			1.38	62.61	76.14	138.75
TOTALS			556.53	60.64	28.79	35.05	0.00	15.49	696.50	141.32	837.82

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

Table 20.E Estimated monthly income and expense flows per acre
 Provisia straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

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	717.60	0.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	13.00	9.00	3.25	14.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.22	21.75	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	29.19	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	71.90	12.09	11.23	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	8.01	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	106.26	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	6.98	4.74	1.20	0.36	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.50	10.50	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	3.58	0.00	0.00	0.00	0.00	0.00	6.91	3.18	4.08	4.08	9.13	4.09
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	3.98	0.00	0.00	0.00	0.00	0.00	12.34	10.59	10.59	10.59	7.99	4.56
REPAIR & MAINTENANCE	2.07	0.00	0.00	0.00	0.00	0.00	4.09	7.37	1.46	1.46	9.25	3.09
INTEREST ON OP. CAP.	0.77	0.00	0.00	0.00	0.72	0.00	6.65	3.56	1.28	1.02	1.43	0.06
TOTAL DIRECT EXPENSES	13.73	0.00	0.00	0.00	18.74	0.00	228.13	145.25	65.34	68.71	144.80	11.80
NET INCOME	-13.73	0.00	0.00	0.00	-18.74	0.00	-228.13	-145.25	-65.34	-68.71	572.80	-11.80
NET INCOME TO DATE	-13.73	-13.73	-13.73	-13.73	-32.47	-32.47	-260.60	-405.85	-471.19	-539.90	32.90	21.10

Note: Cost of production estimates are based on 2018 input prices.

Fertilization decisions should be based on soil tests.

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

* Lease costs are based on hourly usage costs.

Table 20.F Estimated returns for various price/yield combinations, per acre
 Provisia straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.45	3.68	3.91	4.14	4.37	4.60	4.83	5.06	5.29	5.52	5.75
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-368 -509	-350 -491	-332 -473	-314 -455	-296 -437	-278 -419	-260 -401	-242 -384	-224 -366	-206 -348	-188 -330
60	93.60	bu	-326 -467	-304 -446	-283 -424	-261 -403	-240 -381	-218 -359	-197 -338	-175 -316	-154 -295	-132 -273	-111 -252
70	109.20	bu	-284 -425	-259 -400	-234 -375	-208 -350	-183 -325	-158 -300	-133 -274	-108 -249	-83 -224	-58 -199	-33 -174
80	124.80	bu	-242 -383	-213 -354	-184 -326	-156 -297	-127 -268	-98 -240	-70 -211	-41 -182	-12 -153	16 -125	44 -96
90	140.40	bu	-200 -341	-168 -309	-135 -277	-103 -244	-71 -212	-38 -180	-6 -147	25 -115	58 -83	90 -50	122 -18
100	156.00	bu	-158 -299	-122 -263	-86 -227	-50 -191	-14 -156	21 -120	56 -84	92 -48	128 -12	164 23	200 59
110	171.60	bu	-116 -257	-76 -218	-37 -178	2 -139	41 -99	81 -60	120 -20	159 18	199 58	238 97	278 137
120	187.20	bu	-74 -215	-31 -172	11 -129	54 -86	97 -43	140 -0	184 42	227 85	270 128	313 171	356 214
130	202.80	bu	-32 -173	14 -126	60 -80	107 -33	154 12	200 59	247 106	294 152	340 199	387 246	434 292
140	218.40	bu	9 -131	59 -81	110 -31	160 19	210 69	260 119	311 169	361 220	411 270	461 320	512 370
150	234.00	bu	51 -89	105 -35	159 18	213 71	266 125	320 179	374 233	428 287	482 340	536 394	589 448

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 2018 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, 2019

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	339,000	300	8	13.64	13.51	35.46	35.31	84.28	151.94	236.23
Combine (300-349 hp)	325 hp	362,000	300	8	16.73	13.51	43.49	37.70	94.71	162.25	256.97
Combine (350-399 hp)	355 hp	391,000	300	8	18.27	13.51	47.50	40.72	101.74	175.25	276.99
Combine (400-449 hp)	425 hp	412,000	300	8	21.87	13.51	56.87	42.91	113.30	184.66	297.97
Combine (450-499hp)	475 hp	434,000	300	8	24.44	13.51	63.56	45.20	122.28	194.52	316.81
Tractor(20-39hp)CB	MFWD 30	25,500	600	8	1.54	13.51	4.01	0.79	18.32	5.29	23.61
Tractor(20-39hp)RB	MFWD 30	20,400	600	8	1.54	13.51	4.01	0.63	18.16	4.23	22.39
Tractor(40-59hp)CB	2WD 50	29,400	600	8	2.57	13.51	6.69	0.91	21.12	6.10	27.22
Tractor(40-59hp)CB	MFWD 50	39,500	600	8	2.57	13.51	6.69	1.23	21.43	8.19	29.63
Tractor(40-59hp)RB	2WD 50	22,900	600	8	2.57	13.51	6.69	0.71	20.91	4.75	25.67
Tractor(40-59hp)RB	MFWD 50	27,800	600	8	2.57	13.51	6.69	0.86	21.07	5.77	26.84
Tractor(60-89hp)CB	2WD 75	52,800	600	8	3.86	13.51	10.03	1.65	25.19	10.95	36.15
Tractor(60-89hp)CB	MFWD 75	62,500	600	8	3.86	13.51	10.03	1.95	25.50	12.97	38.47
Tractor(60-89hp)RB	2WD 75	38,600	600	8	3.86	13.51	10.03	1.20	24.75	8.01	32.76
Tractor(60-89hp)RB	MFWD 75	40,100	600	8	3.86	13.51	10.03	1.25	24.80	8.32	33.12
Tractor(90-119hp)CB	2WD 105	69,200	600	8	5.40	13.51	14.05	2.16	29.72	14.36	44.08
Tractor(90-119hp)CB	MFWD 105	83,000	600	8	5.40	13.51	14.05	2.59	30.15	17.22	47.38
Tractor(90-119hp)RB	2WD 105	61,200	600	8	5.40	13.51	14.05	1.91	29.47	12.70	42.17
Tractor(90-119hp)RB	MFWD 105	67,500	600	8	5.40	13.51	14.05	2.10	29.67	14.01	43.68
Tractor(120-139hp)CB	2WD 130	103,000	600	8	6.69	13.51	17.39	3.21	34.12	21.37	55.50
Tractor(120-139hp)CB	MFWD 130	114,000	600	8	6.69	13.51	17.39	3.56	34.47	23.66	58.13
Tractor(140-159hp)	2WD 150	109,000	600	8	7.72	13.51	20.07	3.40	36.99	22.62	59.61
Tractor(140-159hp)CB	MFWD 150	130,000	600	8	7.72	13.51	20.07	4.06	37.64	26.98	64.63
Tractor(160-179hp)CB	MFWD 170	148,000	600	8	8.75	13.51	22.75	4.62	40.88	31.94	72.83
Tractor(180-199hp)CB	MFWD 190	175,000	600	8	9.77	13.51	25.42	5.46	44.40	37.77	82.17
Tractor(200-249hp)CB	MFWD 225	191,000	600	8	11.58	13.51	30.11	5.96	49.59	41.22	90.81
Tractor(250-349hp)CB	4WD 300	286,000	600	8	15.44	13.51	40.14	8.93	62.59	61.73	124.32
Tractor(250-349hp)CB	MFWD 300	278,000	600	8	15.44	13.51	40.14	8.68	62.34	60.00	122.34
Tractor(250-349hp)CB	Track 300	317,000	600	8	15.44	13.51	40.14	9.90	63.56	68.42	131.98
Tractor(350-449hp)	Track 400	420,000	600	8	20.58	13.51	53.53	13.12	80.16	90.65	170.81
Tractor(350-449hp)CB	4WD 400	328,000	600	8	20.58	13.51	53.53	10.25	77.29	70.79	148.08
Tractor(450-550hp)CB	4WD 500	394,000	600	8	25.73	13.51	66.91	12.31	92.73	85.04	177.77
Tractor(450-550hp)CB	Track 500	444,000	600	8	25.73	13.51	66.91	13.87	94.29	95.83	190.13
Utility Vehicle	800 CC	12,200	200	8	0.70	13.51	1.75	1.90	17.16	8.20	25.36
Utility Vehicle	900 CC	15,800	200	8	1.00	13.51	2.50	2.46	18.47	10.62	29.10

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, 2019

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	5.81	8.62	10.79	25.23	46.44	71.68
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	5.81	12.07	14.13	32.02	60.83	92.86
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	3.88	8.07	9.61	21.57	41.35	62.92
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	4.92	10.36	15.85	31.15	68.23	99.38
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	3.88	8.18	12.51	24.59	53.86	78.46
Cotton Picker/Module	4R-38 (365)	536,000	200	8	20.58	0.257	5.81	13.79	21.58	41.20	92.89	134.10
Cotton Picker/Module	6R-30 (500)	776,000	200	8	25.73	0.218	4.92	14.60	26.46	45.99	113.86	159.85
Cotton Picker/Module	6R-38 (500)	777,000	200	8	25.73	0.172	3.88	11.52	20.91	36.33	90.01	126.35
Dry Applicator SP	70'300cuft	347,000	350	8	16.98	0.015	0.27	0.66	0.28	1.22	2.01	3.23
Sprayer 600-750gal	60' 175hp	208,000	350	8	9.00	0.017	0.31	0.41	0.19	0.92	1.40	2.33
Sprayer 600-825gal	80' 175hp	210,000	350	8	11.81	0.013	0.23	0.40	0.14	0.79	1.06	1.85
Sprayer 600-825gal	90' 250hp	288,000	350	8	12.73	0.011	0.21	0.38	0.18	0.78	1.30	2.08
Sprayer 800gal	100' 250hp	303,000	350	8	14.15	0.010	0.19	0.38	0.17	0.75	1.23	1.98
Sprayer 800gal	80' 250hp	255,000	350	8	12.86	0.013	0.23	0.44	0.18	0.86	1.29	2.15
Sprayer 1000-1400gal	90' 275hp	289,000	350	8	14.15	0.010	0.19	0.38	0.16	0.74	1.17	1.91
Sprayer 1000gal	100' 300hp	328,000	350	8	15.44	0.010	0.19	0.42	0.18	0.80	1.33	2.13
Sprayer 1200+gal	120' 300hp	332,000	350	8	15.44	0.008	0.15	0.35	0.15	0.66	1.12	1.79

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, 2019

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M--- Imp. P.U.	Total Direct	--Fixed-- Imp. P.U.	Total Cost			
			dollars	hours	years	hr/ac	-----\$/acre-----								
Bed-Paratill	Fold	8R-38	MFWD 225	54,400	150	12	0.080	1.09	2.43	1.58	0.48	5.59	3.08	3.32	12.00
Bed-Paratill	Fold	8R-38 2x1	MFWD 225	69,100	150	12	0.053	0.72	1.61	1.34	0.32	4.00	2.60	2.21	8.83
Bed-Paratill	Fold	12R-38	MFWD 225	69,100	150	12	0.053	0.72	1.61	1.34	0.32	4.00	2.60	2.21	8.83
Bed-Paratill	Rigid	4R-30	MFWD 225	12,300	150	12	0.204	2.76	6.15	0.90	1.21	11.04	1.76	8.42	21.22
Bed-Paratill	Rigid	4R-38	MFWD 225	12,300	150	12	0.160	2.17	4.84	0.71	0.96	8.69	1.38	6.63	16.71
Bed-Paratill	Rigid	6R-30	MFWD 225	17,300	150	12	0.136	1.84	4.10	0.85	0.81	7.60	1.65	5.61	14.87
Bed-Paratill	Rigid	6R-38	MFWD 225	17,200	150	12	0.107	1.45	3.23	0.66	0.64	6.00	1.29	4.43	11.73
Bed-Paratill	Rigid	8R-30	MFWD 225	22,600	150	12	0.102	1.38	3.07	0.83	0.60	5.90	1.62	4.21	11.73
Bed-Paratill	Rigid	8R-38	MFWD 225	22,600	150	12	0.080	1.09	2.43	0.65	0.48	4.66	1.28	3.32	9.27
Bed-Rip/Disk	Fold.	8R-38	MFWD 190	36,900	300	20	0.073	0.98	1.85	0.13	0.39	3.37	0.74	2.76	6.88
Bed-Rip/Disk	Fold.	12R-30	MFWD 225	56,600	300	20	0.061	0.83	1.85	0.17	0.36	3.23	0.96	2.54	6.73
Bed-Rip/Disk	Fold.	12R-38	MFWD 225	56,600	300	20	0.046	0.62	1.39	0.13	0.27	2.42	0.72	1.90	5.05
Bed-Rip/Disk	Rigid	4R-30	MFWD 190	17,300	300	20	0.184	2.49	4.70	0.15	1.01	8.36	0.88	6.98	16.23
Bed-Rip/Disk	Rigid	4R-38	MFWD 190	17,300	300	20	0.146	1.98	3.73	0.12	0.80	6.64	0.70	5.54	12.88
Bed-Rip/Disk	Rigid	6R-38	MFWD 190	23,900	300	20	0.097	1.31	2.47	0.11	0.53	4.43	0.64	3.67	8.75
Bed-Rip/Disk	Rigid	8R-30	MFWD 190	31,300	300	20	0.139	1.87	3.53	0.21	0.76	6.39	1.20	5.25	12.84
Bed-Rip/Disk	Rigid	8R-38	MFWD 190	31,300	300	20	0.073	0.98	1.85	0.11	0.39	3.35	0.63	2.76	6.75
Bed-Rip/Disk	Rigid	6R-30	MFWD 190	23,900	300	20	0.123	1.66	3.13	0.14	0.67	5.62	0.81	4.65	11.09
Bed-Rip/Disk/Cond.		6-Row	MFWD 225	24,600	150	12	0.107	1.45	3.23	0.95	0.64	6.28	1.85	4.43	12.57
Bed-Rip/Disk/Cond.		8-Row	MFWD 225	32,700	150	12	0.080	1.09	2.43	0.95	0.48	4.95	1.85	3.32	10.14
Bed/Disk (Hipper)		4R-38	MFWD 150	9,200	160	10	0.147	1.99	2.96	0.33	0.59	5.89	0.99	3.98	10.87
Bed/Disk (Hipper)		6R-38	MFWD 170	13,000	160	10	0.098	1.33	2.24	0.32	0.45	4.35	0.93	3.15	8.44
Bed/Disk (Hipper)		8R-30	MFWD 190	17,800	160	10	0.093	1.26	2.38	0.41	0.51	4.58	1.21	3.54	9.34
Bed/Disk (Hipper)		8R-38 2x1	MFWD 190	29,200	160	10	0.049	0.66	1.25	0.36	0.26	2.55	1.05	1.86	5.46
Bed/Disk (Hipper)		12R-30	MFWD 225	31,000	160	10	0.062	0.84	1.88	0.48	0.37	3.58	1.41	2.57	7.57
Bed/Disk (Hipper)		12R-38	MFWD 225	29,200	160	10	0.049	0.66	1.48	0.36	0.29	2.80	1.05	2.03	5.89
Bed/Disk (Hipper)Fl		8R-38	MFWD 190	2,000	160	10	0.074	1.00	1.88	0.03	0.40	3.32	0.10	2.79	6.23
Bed/Disk (Hipper)Rd		8R-38	MFWD 190	18,400	160	10	0.074	1.00	1.88	0.34	0.40	3.63	0.99	2.79	7.42
Bed/Disk w/roller		8R-30	MFWD 190	26,600	160	10	0.093	1.26	2.38	0.62	0.51	4.78	1.82	3.54	10.14
Bed/Disk w/roller		8R-38	MFWD 190	26,600	160	10	0.074	1.00	1.88	0.49	0.40	3.78	1.43	2.79	8.02
Bed/Disk w/roller		12R-30/40	MFWD 225	47,000	160	10	0.062	0.84	1.88	0.73	0.37	3.83	2.14	2.57	8.55
Bed/Lister		4R-38	MFWD 150	18,200	160	8	0.228	3.08	4.58	0.97	0.92	9.57	3.36	6.16	19.09
Bed/Lister		6R-38	MFWD 150	19,100	160	8	0.120	1.62	2.41	0.53	0.48	5.06	1.85	3.24	10.16
Bed/Lister		8R-30	MFWD 190	23,100	160	8	0.114	1.54	2.90	0.61	0.62	5.68	2.13	4.31	12.13
Bed/Lister		8R-38	MFWD 190	23,400	160	8	0.090	1.21	2.29	0.49	0.49	4.50	1.70	3.40	9.62
Bed/Lister		8R-38 2x1	MFWD 190	46,700	160	8	0.060	0.81	1.52	0.65	0.32	3.32	2.27	2.27	7.86
Bed/Lister		12R-38	MFWD 225	46,700	160	8	0.060	0.81	1.80	0.65	0.35	3.63	2.27	2.47	8.38
Bed/Lister		16R-30	MFWD 225	58,100	160	8	0.035	0.47	1.05	0.47	0.20	2.22	1.65	1.44	5.32
Bed/Lister		16R40	MFWD 300	60,900	160	8	0.043	0.58	1.73	0.61	0.37	3.30	2.12	2.58	8.01
Bed/Lister-Roll-Fold		8R-38	MFWD 190	24,300	160	10	0.074	1.00	1.88	0.45	0.40	3.74	1.31	2.79	7.85
Bed/Lister-Roll-Fold		12R-30	MFWD 225	29,200	160	10	0.062	0.84	1.88	0.45	0.37	3.55	1.33	2.57	7.46
Bed/Lister-Roll-Fold		12R-38	MFWD 225	33,700	160	10	0.049	0.66	1.48	0.41	0.29	2.86	1.21	2.03	6.11
Bed/Lister-Roll-Fold		16R-30	MFWD 225	34,800	160	10	0.046	0.63	1.41	0.40	0.27	2.73	1.19	1.93	5.85
Bed/Lister-Roll-Rig.		8R-38	MFWD 190	20,300	160	10	0.074	1.00	1.88	0.37	0.40	3.66	1.09	2.79	7.56
Blade-Box		6'-7'	MFWD 105	1,221	200	20	0.020	0.27	0.28	0.01	0.04	0.60	0.01	0.28	0.89
Blade-Box		8'-10'	MFWD 105	3,700	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	1,213	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	3,550	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	3.48	6.55	1.96	1.40	13.41	4.44	9.73	27.59
Boll Buggy		4R-38 (350)	MFWD 190	30,500	200	10	0.257	3.48	6.55	1.96	1.40	13.41	4.44	9.73	27.59
Boll Buggy		4R2x1 (350)	MFWD 190	30,500	200	10	0.172	2.32	4.38	1.31	0.94	8.96	2.97	6.50	18.44
Boll Buggy		6R-30 (355)	MFWD 190	30,500	200	10	0.218	2.94	5.54	1.66	1.19	11.35	3.76	8.24	23.36
Boll Buggy		6R-38 (355)	MFWD 190	30,500	200	10	0.172	2.32	4.38	1.31	0.94	8.96	2.97	6.50	18.44
Chisel Plow-Folding		24'	MFWD 190	39,900	150	12	0.076	1.03	1.94	1.10	0.41	4.49	2.14	2.88	9.52
Chisel Plow-Folding		32'	MFWD 225	51,900	150	12	0.057	0.78	1.73	1.08	0.34	3.94	2.10	2.38	8.43
Chisel Plow-Folding		42'	MFWD 225	62,500	150	12	0.044	0.59	1.32	0.99	0.26	3.17	1.93	1.81	6.92
Chisel Plow-Folding		50'	MFWD 225	81,900	150	10	0.036	0.49	1.11	1.31	0.22	3.14	2.35	1.52	7.02
Chisel Plow-Folding		61'	MFWD 225	92,400	150	12	0.030	0.40	0.91	1.01	0.18	2.51	1.96	1.24	5.72
Chisel Plow-Rigid		10'	MFWD 170	7,090	150	12	0.184	2.49	4.20	0.47	0.85	8.03	0.92	5.90	14.85
Chisel Plow-Rigid		15'	2WD 130	11,800	150	12	0.123	1.66	2.14	0.52	0.39	4.73	1.02	2.63	8.38
Chisel Plow-Rigid		20'	MFWD 225	11,300	150	12	0.102	1.38	3.09	0.41	0.61	5.51	0.81	4.23	10.56
Chisel Plow-Rigid		24'	MFWD 190	11,700	150	12	0.077	1.04	1.95	0.32	0.42	3.74	0.63	2.90	7.28
Cultivate		4R-30	2WD 105	12,100	150	10	0.206	2.78	2.89	0.66	0.44	6.79	1.94	2.96	11.70
Cultivate		4R-38	2WD 105	12,200	150	10	0.162	2.19	2.28	0.52	0.31	5.31	1.54	2.06	8.92
Cultivate		6R-30	MFWD 150	16,300	150	10	0.137	1.85	2.76	0.59	0.55	5.77	1.74	3.71	11.23
Cultivate		6R-38	MFWD 150	17,200	150	10	0.108	1.46	2.17	0.49	0.44	4.58	1.45	2.92	8.96
Cultivate		8R-30	MFWD 190	21,400	150	10	0.103	1.39	2.62	0.58	0.56	5.16	1.71	3.89	10.78
Cultivate		8R-38	MFWD 190	22,600	150	10	0.073	0.99	1.87	0.44	0.40	3.71	1.29	2.78	7.79
Cultivate		8R-38 2x1	MFWD 190	35,400	150	10	0.054	0.73	1.38	0.51	0.29	2.92	1.49	2.05	6.47
Cultivate		12R-30	MFWD 225	39,900	150	10	0.068	0.92	2.07	0.73	0.41	4.14	2.13	2.83	9.11
Cultivate		12R-38	MFWD 225	39,100	150	10	0.054	0.73	1.63	0.56	0.32	3.25	1.65	2.23	7.14
Cultivate		16R-30	MFWD 225	47,800	150	10	0.051	0.69	1.55	0.65	0.30	3.21	1.92	2.12	7.25
Cultivate & Post		4R-30	2WD 105	19,400	150	10	0.220	3.96	3.09	1.13	0.42	8.61	3.32	2.79	14.73
Cultivate & Post		4R-38	2WD 105	19,500	150	10	0.173	3.12	2.43	0.90	0.33	6.79	2.63	2.20	11.62
Cultivate & Post		6R-30	MFWD 150	23,600	150	10	0.146	2.64	2.94	0.92	0.59	7.10	2.69	3.95	13.76
Cultivate & Post		6R-38	MFWD 150	24,500	150	10	0.115	2.08	2.32	0.75	0.47	5.64	2.21	3.12	10.97
Cultivate & Post		8R-30	MFWD 190	28,700	150	10	0.110	1.98	2.79	0.84	0.60	6.22	2.45	4.15	12.83
Cultivate & Post		8R-38	MFWD 190	29,800	150	10	0.086	1.56	2.21	0.69	0.47	4.94	2.01	3.28	10.25
Cultivate & Post		8R-38 2x1	MFWD 190	47,800	150	10	0.057	1.04	1.47	0.73	0.31	3.57	2.15	2.18	7.91

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (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	12R-30	MFWD 225	47,200	150	10	0.073	1.32	2.20	0.92	0.43	4.89	2.69	3.02	10.61
Cultivate & Post	12R-38	MFWD 225	47,800	150	10	0.057	1.04	1.74	0.73	0.34	3.87	2.15	2.38	8.41
Cultivate & Post	16R-30	MFWD 225	56,500	150	10	0.055	0.99	1.65	0.82	0.32	3.80	2.42	2.26	8.49
Disk & Incorporate	14'	2WD 130	31,900	200	10	0.149	2.69	2.60	1.43	0.48	7.21	2.78	3.19	13.20
Disk & Incorporate	20'	MFWD 190	44,500	180	10	0.092	1.24	2.35	1.37	0.50	5.47	2.67	3.49	11.63
Disk & Incorporate	24'	MFWD 190	50,000	200	10	0.087	1.57	2.21	1.30	0.47	5.58	2.55	3.29	11.42
Disk & Incorporate	28'	MFWD 225	59,200	200	10	0.074	1.34	2.25	1.32	0.44	5.37	2.58	3.08	11.05
Disk & Incorporate	32'	MFWD 225	66,000	200	10	0.065	1.18	1.97	1.29	0.39	4.84	2.52	2.69	10.06
Disk Harrow	14'	2WD 130	24,600	180	10	0.140	1.89	2.44	0.95	0.45	5.74	2.24	2.99	10.98
Disk Harrow	20'	MFWD 190	39,200	180	10	0.098	1.32	2.49	1.06	0.53	5.43	2.49	3.70	11.63
Disk Harrow	24'	MFWD 190	42,700	180	10	0.081	1.10	2.08	0.97	0.44	4.60	2.26	3.09	9.96
Disk Harrow	28'	MFWD 225	52,000	180	10	0.070	0.94	2.11	1.01	0.41	4.49	2.36	2.89	9.75
Disk Harrow	32'	MFWD 225	58,700	180	10	0.061	0.82	1.84	1.00	0.36	4.04	2.33	2.53	8.91
Disk Harrow	42'	MFWD 225	104,000	180	10	0.046	0.63	1.40	1.35	0.27	3.67	3.15	1.92	8.75
Disk Harrow 40-100hp	14'	2WD 75	15,000	180	10	0.140	1.89	1.40	0.58	0.16	4.05	1.36	1.12	6.54
Disk Heavy	14'	MFWD 150	31,900	180	10	0.145	1.97	2.92	1.29	0.59	6.78	3.02	3.93	13.74
Disk Heavy	20'	MFWD 190	39,200	180	10	0.097	1.31	2.47	1.05	0.53	5.38	2.47	3.67	11.53
Disk Heavy	28'	MFWD 225	52,000	180	10	0.075	1.02	2.27	1.09	0.45	4.84	2.55	3.11	10.52
Disk Ripper	15'	MFWD 225	45,200	180	10	0.136	1.84	4.10	1.71	0.81	8.46	3.99	5.61	18.07
Ditcher		2WD 130	5,700	200	10	0.020	0.27	0.34	0.04	0.06	0.72	0.06	0.42	1.22
Ditcher (1m/160a)		2WD 130	5,700	200	10	0.009	0.12	0.16	0.02	0.03	0.34	0.03	0.20	0.57
Fert Appl (Liquid)	4R-38	MFWD 150	12,900	150	8	0.154	2.79	3.10	1.33	0.62	7.85	1.65	4.17	13.68
Fert Appl (Liquid)	6R-30	MFWD 170	16,700	150	8	0.130	2.36	2.97	1.45	0.60	7.40	1.81	4.18	13.40
Fert Appl (Liquid)	6R-38	MFWD 170	16,100	150	8	0.103	1.86	2.35	1.10	0.47	5.80	1.38	3.30	10.48
Fert Appl (Liquid)	8R-30	MFWD 190	16,900	150	8	0.098	1.77	2.49	1.10	0.53	5.91	1.37	3.70	11.00
Fert Appl (Liquid)	8R-38	MFWD 190	19,000	150	8	0.077	1.40	1.97	0.98	0.42	4.78	1.22	2.93	8.94
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	20,300	150	8	0.051	0.93	1.31	0.69	0.28	3.22	0.87	1.95	6.05
Fert Appl (Liquid)	12R-30	MFWD 225	22,600	150	8	0.078	1.41	2.36	1.18	0.46	5.43	1.47	3.23	10.14
Fert Appl (Liquid)	12R-38	MFWD 225	19,900	150	8	0.051	0.93	1.55	0.68	0.30	3.48	0.85	2.13	6.46
Field Cult & Inc	42'	MFWD 225	69,400	100	10	0.037	0.68	1.13	0.65	0.22	2.69	3.06	1.55	7.32
Field Cult & Inc	50'	MFWD 225	81,500	100	10	0.031	0.57	0.95	0.64	0.18	2.36	3.02	1.30	6.69
Field Cult & Inc Fld	24'	MFWD 170	34,000	100	10	0.066	1.19	1.50	0.56	0.30	3.56	2.62	2.11	8.30
Field Cult & Inc Fld	32'	MFWD 190	48,700	100	10	0.049	0.89	1.26	0.60	0.27	3.02	2.82	1.87	7.72
Field Cult & Inc Rdg	12'	2WD 150	15,800	100	10	0.132	2.38	2.65	0.52	0.45	6.01	2.44	2.99	11.44
Field Cultivate Fld	24'	MFWD 170	28,600	100	10	0.062	0.84	1.41	0.44	0.28	2.98	2.07	1.98	7.05
Field Cultivate Fld	32'	MFWD 190	43,300	100	10	0.046	0.63	1.18	0.50	0.25	2.57	2.36	1.76	6.70
Field Cultivate Fld	42'	MFWD 225	60,700	100	10	0.035	0.48	1.07	0.53	0.21	2.30	2.52	1.46	6.28
Field Cultivate Fld	50'	MFWD 225	65,900	100	10	0.029	0.40	0.89	0.49	0.17	1.97	2.29	1.23	5.50
Field Cultivate Rdg	12'	2WD 150	10,400	100	10	0.124	1.68	2.49	0.32	0.42	4.92	1.51	2.81	9.25
Grain Cart Corn	500 bu	MFWD 190	25,700	200	12	0.025	0.34	0.64	0.17	0.13	1.29	0.34	0.95	2.59
Grain Cart Corn	700 bu	MFWD 190	37,300	200	12	0.025	0.34	0.64	0.25	0.13	1.37	0.49	0.95	2.83
Grain Cart Corn	1000 bu	MFWD 225	46,900	200	12	0.025	0.34	0.76	0.32	0.15	1.57	0.62	1.04	3.24
Grain Cart Rice	500 bu	MFWD 190	25,700	200	12	0.062	0.84	1.58	0.43	0.34	3.21	0.84	2.36	6.41
Grain Cart Rice	700 bu	MFWD 190	37,300	200	12	0.055	0.74	1.39	0.55	0.30	2.99	1.08	2.07	6.15
Grain Cart Rice	1000 bu	MFWD 190	46,900	200	12	0.045	0.61	1.16	0.58	0.25	2.61	1.13	1.73	5.48
Grain Cart Soybean	500 bu	MFWD 190	25,700	200	12	0.025	0.34	0.64	0.17	0.13	1.30	0.34	0.96	2.61
Grain Cart Soybean	700 bu	MFWD 190	37,300	200	12	0.021	0.28	0.54	0.21	0.11	1.15	0.41	0.80	2.37
Grain Cart Soybean	1000 bu	MFWD 190	46,900	200	12	0.021	0.28	0.54	0.26	0.11	1.21	0.52	0.80	2.54
Grain Cart Wht/Sor	500 bu	MFWD 190	25,700	200	12	0.025	0.34	0.64	0.17	0.13	1.30	0.34	0.96	2.61
Grain Cart Wht/Sor	700 bu	MFWD 190	37,300	200	12	0.021	0.28	0.54	0.21	0.11	1.15	0.41	0.80	2.37
Grain Cart Wht/Sor	1000 bu	MFWD 190	46,900	200	12	0.021	0.28	0.54	0.26	0.11	1.21	0.52	0.80	2.54
Grain Drill	10'	2WD 130	26,700	150	8	0.188	4.25	3.28	1.88	0.60	10.03	4.01	4.03	18.07
Grain Drill	12'	2WD 130	26,800	150	8	0.157	3.54	2.73	1.57	0.50	8.36	3.35	3.35	15.08
Grain Drill	15'	MFWD 150	32,600	150	8	0.125	2.83	2.52	1.53	0.51	7.40	3.26	3.39	14.06
Grain Drill	20'	MFWD 170	38,800	150	8	0.094	2.12	2.14	1.37	0.43	6.08	2.91	3.01	12.00
Grain Drill	24'	MFWD 190	65,600	150	8	0.078	1.77	1.99	1.93	0.42	6.13	4.10	2.96	13.21
Grain Drill	30'	MFWD 225	63,800	150	8	0.062	1.41	1.89	1.50	0.37	5.19	3.19	2.59	10.97
Grain Drill	35'	MFWD 225	91,000	150	8	0.053	1.21	1.62	1.83	0.32	4.99	3.90	2.22	11.12
Grain Drill & Pre	10'	2WD 130	33,900	150	8	0.203	4.58	3.53	2.58	0.65	11.35	5.48	4.34	21.18
Grain Drill & Pre	12'	2WD 130	34,100	150	8	0.169	3.81	2.94	2.16	0.54	9.47	4.60	3.61	17.69
Grain Drill & Pre	15'	MFWD 150	39,900	150	8	0.135	3.05	2.71	2.02	0.54	8.34	4.30	3.65	16.30
Grain Drill & Pre	20'	MFWD 170	46,000	150	8	0.101	2.29	2.31	1.75	0.46	6.82	3.72	3.24	13.79
Grain Drill & Pre	24'	MFWD 190	71,000	150	8	0.084	1.90	2.15	2.25	0.46	6.77	4.78	3.19	14.76
Grain Drill & Pre	30'	MFWD 225	71,000	150	8	0.067	1.52	2.03	1.80	0.40	5.77	3.83	2.79	12.39
Grain Drill & Pre	35'	MFWD 225	98,200	150	8	0.058	1.30	1.74	2.13	0.34	5.53	4.54	2.39	12.47
Grain Drill & Pre T	8R-38	MFWD 225	51,800	150	8	0.062	1.41	1.89	1.22	0.37	4.90	2.59	2.59	10.09
Harrow - Rigid	21'	2WD 150	6,750	200	10	0.073	0.99	1.48	0.17	0.25	2.91	0.29	1.67	4.87
Harrow - Folding	24'	MFWD 190	15,800	200	10	0.064	0.87	1.64	0.35	0.35	3.23	0.59	2.44	6.27
Harrow - Folding	30'	MFWD 190	17,700	200	10	0.051	0.69	1.31	0.32	0.28	2.61	0.53	1.95	5.10
Harrow - Folding	40'	MFWD 190	20,200	200	10	0.038	0.52	0.98	0.27	0.21	1.99	0.45	1.46	3.92
Harrow - Folding	48'	MFWD 225	23,700	200	10	0.032	0.43	0.97	0.26	0.19	1.87	0.44	1.33	3.65
Harrow - Rigid	13'	2WD 130	4,950	200	10	0.119	1.61	2.07	0.20	0.38	4.28	0.34	2.55	7.18
Header - Corn	6R-30	265 hp	48,500	300	8	0.170	2.30	6.03	2.06	6.01	16.41	3.42	25.87	45.71
Header - Corn	6R-38	265 hp	48,800	300	8	0.134	1.81	4.76	1.64	4.74	12.97	2.72	20.42	36.12
Header - Corn	8R-30	265 hp	62,300	300	8	0.127	1.72	4.52	1.98	4.50	12.75	3.30	19.40	35.46
Header - Corn	8R-38	325 hp	63,000	300	8	0.100	1.36	4.39	1.59	3.80	11.15	2.64	16.38	30.17
Header - Corn	12R-20	325 hp	95,600	300	8	0.127	1.72	5.55	3.05	4.81	15.14	5.06	20.72	40.93

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total Direct	--Fixed--	Total Cost
			dollars	hours	years	hr/ac	-----\$/acre-----					
Header - Corn	12R-30	325 hp	98,200	300	8	0.085	1.15	3.70	2.09	3.21	10.15	3.47 13.81 27.43
Header - Draper (CL)	25' Rigid	265 hp	60,300	300	8	0.203	2.74	7.20	2.80	7.17	19.92	4.88 30.85 55.66
Header - Draper (CL)	30' Rigid	325 hp	70,600	300	8	0.169	2.28	7.36	2.73	6.38	18.76	4.76 27.45 50.98
Header - Draper (CL)	36' Rigid	355 hp	74,100	300	8	0.141	1.90	6.69	2.39	5.74	16.74	4.16 24.71 45.62
Header - Draper (CL)	40' Rigid	425 hp	79,500	30	8	0.126	1.71	7.21	23.12	5.44	37.50	40.21 23.43 101.16
Header - Draper (SL)	25' Rigid	325 hp	60,300	300	8	0.176	2.37	7.65	2.43	6.63	19.11	4.23 28.55 51.88
Header - Draper (SL)	30' Rigid	325 hp	70,600	300	8	0.146	1.98	6.37	2.37	5.53	16.26	4.12 23.79 44.19
Header - Draper (SL)	36' Rigid	355 hp	74,100	300	8	0.122	1.65	5.80	2.07	4.97	14.51	3.60 21.41 39.53
Header - Draper	40' Rigid	425 hp	79,500	30	8	0.110	1.48	6.25	20.04	4.72	32.50	34.85 20.31 87.67
Header -RiceStrp(CL)	20'	265 hp	50,000	300	8	0.253	3.42	9.00	3.17	8.96	24.56	5.26 38.57 68.41
Header -RiceStrp(CL)	24'	325 hp	55,400	300	8	0.211	2.85	9.20	2.92	7.97	22.96	4.86 34.32 62.15
Header -RiceStrp(CL)	32'	325 hp	60,800	300	8	0.158	2.14	6.90	2.41	5.98	17.43	4.00 25.74 47.18
Header -RiceStrp(SL)	20'	265 hp	50,000	300	8	0.220	2.97	7.80	2.75	7.76	21.29	4.56 33.42 59.28
Header -RiceStrp(SL)	24'	325 hp	55,400	300	8	0.183	2.47	7.97	2.53	6.91	19.90	4.21 29.74 53.86
Header -RiceStrp(SL)	32'	325 hp	60,800	300	8	0.137	1.85	5.98	2.09	5.18	15.11	3.47 22.31 40.89
Header -Soybean	22' Flex	265 hp	32,600	300	8	0.116	1.56	4.11	0.94	4.09	10.73	1.57 17.64 29.94
Header -Soybean	25' Flex	325 hp	35,000	300	8	0.102	1.38	4.44	0.89	3.85	10.57	1.48 16.57 28.63
Header -Soybean	30' Flex	325 hp	40,900	300	8	0.085	1.15	3.70	0.87	3.21	8.93	1.44 13.81 24.19
Header -Soybean	35' Flex	355 hp	47,000	300	8	0.072	0.98	3.46	0.85	2.97	8.28	1.42 12.79 22.49
Header Wheat/Sorghum	22' Rigid	265 hp	19,800	300	8	0.116	1.56	4.11	0.57	4.09	10.36	0.95 17.64 28.95
Header Wheat/Sorghum	25' Rigid	325 hp	21,000	300	8	0.102	1.38	4.44	0.53	3.85	10.21	0.89 16.57 27.68
Header Wheat/Sorghum	30' Rigid	325 hp	25,700	300	8	0.085	1.15	3.70	0.54	3.21	8.61	0.90 13.81 23.33
Land Plane	50'x16'	MFWD 190	14,300	200	10	0.151	2.04	3.85	0.43	0.82	7.16	1.26 5.72 14.16
Levee Pull & Seed	8 Blade	MFWD 170	10,400	100	10	0.003	0.04	0.08	0.00	0.01	0.15	0.04 0.11 0.31
Levee Pull (1m/80a)	8 blade	MFWD 170	7,180	100	10	0.003	0.04	0.08	0.00	0.01	0.15	0.02 0.11 0.29
Levee Splitter (1/80)	32"	MFWD 150	7,180	100	10	0.004	0.05	0.08	0.00	0.01	0.16	0.03 0.11 0.31
Module Builder	4R-38(250)	MFWD 190	34,700	200	10	0.257	5.81	6.55	2.23	1.40	16.01	5.06 9.73 30.81
Module Builder	4R-38(350)	MFWD 190	34,700	200	10	0.257	5.81	6.55	2.23	1.40	16.01	5.06 9.73 30.81
Module Builder	4R2x1(350)	MFWD 190	34,700	200	10	0.172	3.88	4.38	1.49	0.94	10.70	3.38 6.50 20.59
Module Builder	6R-30(355)	MFWD 190	34,700	200	10	0.218	4.92	5.54	1.89	1.19	13.56	4.28 8.24 26.09
Module Builder	6R-38(355)	MFWD 190	34,700	200	10	0.172	3.88	4.38	1.49	0.94	10.70	3.38 6.50 20.59
NT Grain Drill	10'	2WD 130	34,100	150	8	0.235	5.31	4.10	3.01	0.75	13.19	6.40 5.03 24.64
NT Grain Drill	12'	2WD 130	47,900	150	8	0.163	3.69	2.84	2.94	0.52	10.00	6.25 3.49 19.75
NT Grain Drill	15'	MFWD 150	55,200	150	8	0.130	2.95	2.62	2.71	0.53	8.82	5.76 3.53 18.12
NT Grain Drill	20'	MFWD 170	71,200	150	8	0.098	2.21	2.23	2.62	0.45	7.52	5.57 3.13 16.23
NT Grain Drill	24'	MFWD 190	90,400	150	8	0.081	1.84	2.08	2.77	0.44	7.15	5.89 3.09 16.14
NT Grain Drill	30'	MFWD 225	103,000	150	8	0.065	1.47	1.97	2.52	0.39	6.36	5.37 2.69 14.44
NT Grain Drill & Pre	10'	2WD 130	41,400	150	8	0.211	4.77	3.68	3.28	0.68	12.41	6.98 4.52 23.92
NT Grain Drill & Pre	12'	2WD 130	55,200	150	8	0.176	3.97	3.06	3.64	0.56	11.26	7.75 3.76 22.78
NT Grain Drill & Pre	15'	MFWD 150	62,400	150	8	0.141	3.18	2.83	3.30	0.57	9.88	7.01 3.80 20.70
NT Grain Drill & Pre	20'	MFWD 170	78,400	150	8	0.105	2.38	2.40	3.10	0.48	8.39	6.61 3.37 18.38
NT Grain Drill & Pre	24'	MFWD 190	97,700	150	8	0.088	1.98	2.24	3.22	0.48	7.94	6.86 3.32 18.13
NT Grain Drill & Pre	30'	MFWD 225	111,000	150	8	0.070	1.59	2.12	2.93	0.42	7.07	6.23 2.90 16.21
NT Plant&Pre-Folding	8R-38	MFWD 170	65,000	150	8	0.083	1.88	1.90	2.03	0.38	6.21	4.33 2.67 13.21
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	102,000	150	8	0.055	1.25	1.26	2.12	0.25	4.90	4.52 1.77 11.21
NT Plant&Pre-Folding	12R-20	MFWD 190	78,300	150	8	0.105	2.38	2.68	3.10	0.57	8.76	6.60 3.99 19.35
NT Plant&Pre-Folding	12R-30	MFWD 190	87,500	150	8	0.070	1.59	1.79	2.31	0.38	6.08	4.91 2.66 13.66
NT Plant&Pre-Folding	12R-38	MFWD 190	102,000	150	8	0.055	1.25	1.41	2.12	0.30	5.10	4.52 2.10 11.73
NT Plant&Pre-Folding	16R-30	MFWD 190	130,000	150	8	0.052	1.19	1.34	2.57	0.28	5.40	5.48 1.99 12.88
NT Plant&Pre-Folding	23R-15	MFWD 190	163,000	150	8	0.073	1.65	1.86	4.48	0.40	8.41	9.54 2.77 20.73
NT Plant&Pre-Folding	24R-20	MFWD 190	182,000	150	8	0.052	1.19	1.34	3.60	0.28	6.43	7.67 1.99 16.10
NT Plant&Pre-Folding	24R-30	MFWD 190	200,000	150	8	0.035	0.79	0.89	2.64	0.19	4.52	5.62 1.33 11.48
NT Plant&Pre-Folding	31R-15	MFWD 225	194,000	150	8	0.054	1.23	1.64	3.97	0.32	7.18	8.45 2.25 17.88
NT Plant&Pre-Folding	32R-15	MFWD 225	210,000	150	8	0.052	1.19	1.59	4.16	0.31	7.26	8.85 2.18 18.29
NT Plant&Pre-Rigid	4R-30	2WD 130	29,300	150	8	0.211	4.77	3.68	2.32	0.68	11.45	4.94 4.52 20.92
NT Plant&Pre-Rigid	4R-38	2WD 130	35,200	150	8	0.166	3.75	2.89	2.19	0.53	9.39	4.67 3.56 17.62
NT Plant&Pre-Rigid	6R-30	MFWD 150	43,100	150	8	0.141	3.18	2.83	2.27	0.57	8.86	4.84 3.80 17.51
NT Plant&Pre-Rigid	6R-38	MFWD 150	41,800	150	8	0.111	2.51	2.23	1.74	0.45	6.94	3.71 3.00 13.66
NT Plant&Pre-Rigid	8R-30	MFWD 170	53,100	150	8	0.105	2.38	2.40	2.10	0.48	7.38	4.47 3.37 15.24
NT Plant&Pre-Rigid	8R-38	MFWD 170	50,600	150	8	0.083	1.88	1.90	1.58	0.38	5.76	3.37 2.67 11.80
NT Plant&Pre-Rigid	11R-15	MFWD 170	63,500	150	8	0.143	3.24	3.27	3.42	0.66	10.61	7.28 4.59 22.49
NT Plant&Pre-Rigid	11R-20	MFWD 170	62,300	150	8	0.115	2.60	2.62	2.70	0.53	8.47	5.74 3.69 17.90
NT Plant&Pre-Rigid	12R-20	MFWD 190	65,000	150	8	0.105	2.38	2.68	2.57	0.57	8.23	5.48 3.99 17.70
NT Plant&Pre-Rigid	12R-30	MFWD 190	79,300	150	8	0.070	1.59	1.79	2.09	0.38	5.86	4.45 2.66 12.98
NT Plant&Pre-Rigid	15R-15	MFWD 190	80,900	150	8	0.113	2.55	2.87	3.43	0.61	9.47	7.29 4.27 21.04
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	148,000	150	8	0.055	1.25	1.67	3.08	0.33	6.35	6.56 2.29 15.21
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	121,000	150	8	0.083	1.88	2.51	3.79	0.49	8.69	8.06 3.44 20.20
NT Plant-Folding	8R-38	MFWD 170	57,800	150	8	0.077	1.75	1.76	1.68	0.35	5.56	3.57 2.48 11.61
NT Plant-Folding	8R-38 2x1	MFWD 170	93,000	150	8	0.051	1.16	1.17	1.80	0.23	4.38	3.83 1.65 9.86
NT Plant-Folding	12R-20	MFWD 190	71,100	150	8	0.098	2.21	2.49	2.61	0.53	7.86	5.56 3.70 17.14
NT Plant-Folding	12R-30	MFWD 190	78,900	150	8	0.065	1.47	1.66	1.93	0.35	5.43	4.11 2.47 12.03
NT Plant-Folding	12R-38	MFWD 190	93,000	150	8	0.051	1.16	1.31	1.80	0.28	4.56	3.83 1.95 10.35
NT Plant-Folding	16R-30	MFWD 190	122,000	150	8	0.049	1.10	1.24	2.24	0.26	4.87	4.77 1.85 11.50
NT Plant-Folding	23R-15	MFWD 190	155,000	150	8	0.068	1.53	1.73	3.96	0.37	7.61	8.42 2.57 18.61
NT Plant-Folding	24R-20	MFWD 190	174,000	150	8	0.049	1.10	1.24	3.20	0.26	5.83	6.81 1.85 14.49
NT Plant-Folding	24R-30	MFWD 190	184,000	150	8	0.032	0.73	0.83	2.25	0.17	4.00	4.80 1.23 10.04
NT Plant-Folding	31R-15	MFWD 225	185,000	150	8	0.050	1.14	1.52	3.52	0.30	6.49	7.48 2.09 16.07
NT Plant-Folding	32R-15	MFWD 225	201,000	150	8	0.049	1.10	1.47	3.70	0.29	6.58	7.86 2.02 16.47
NT Plant-Rigid	4R-30	2WD 130	22,100	150	8	0.196	4.43	3.41	1.62	0.63	10.11	3.46 4.19 17.77
NT Plant-Rigid	4R-38	2WD 130	27,900	150	8	0.154	3.49	2.69	1.61	0.49	8.29	3.44 3.30 15.04

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total Direct	---Fixed---	Total Cost		
			dollars	hours	years	hr/ac	-----\$/acre-----							
							Imp.	P.U.	Imp.	P.U.				
NT Plant-Rigid	6R-30	MFWD 150	35,800	150	8	0.130	2.95	2.62	1.75	0.53	7.87	3.73	3.53	15.14
NT Plant-Rigid	6R-38	MFWD 150	34,500	150	8	0.103	2.33	2.07	1.33	0.41	6.16	2.84	2.78	11.79
NT Plant-Rigid	8R-30	MFWD 170	45,800	150	8	0.098	2.21	2.23	1.68	0.45	6.59	3.58	3.13	13.31
NT Plant-Rigid	8R-38	MFWD 170	43,300	150	8	0.077	1.75	1.76	1.26	0.35	5.13	2.68	2.48	10.29
NT Plant-Rigid	11R-15	MFWD 170	56,200	150	8	0.133	3.01	3.03	2.81	0.61	9.48	5.98	4.26	19.74
NT Plant-Rigid	11R-20	MFWD 170	55,000	150	8	0.107	2.42	2.44	2.21	0.49	7.57	4.70	3.42	15.71
NT Plant-Rigid	12R-20	MFWD 190	57,800	150	8	0.098	2.21	2.49	2.12	0.53	7.37	4.52	3.70	15.61
NT Plant-Rigid	12R-30	MFWD 190	70,700	150	8	0.065	1.47	1.66	1.73	0.35	5.23	3.69	2.47	11.40
NT Plant-Rigid	15R-15	MFWD 190	72,300	150	8	0.105	2.37	2.67	2.84	0.57	8.46	6.05	3.96	18.48
NT Plant-TwinRow	12R-30/40	MFWD 225	139,000	150	8	0.051	1.16	1.55	2.69	0.30	5.72	5.72	2.13	13.58
NT Plant-TwinRow	8R-30/40	MFWD 225	114,000	150	8	0.077	1.75	2.33	3.31	0.46	7.87	7.05	3.20	18.12
Peanut Cond.& Lifter	6-Row	MFWD 190	13,300	300	20	0.100	1.35	2.54	0.22	0.54	4.66	0.37	3.77	8.81
Peanut Conditioner	6-Row	MFWD 190	15,300	300	20	0.100	1.35	2.54	0.30	0.54	4.74	0.39	3.77	8.92
Peanut Dig/Invertor	4R-30	MFWD 190	29,800	300	15	0.235	3.18	5.99	1.74	1.28	12.22	2.34	8.90	23.47
Peanut Dig/Invertor	4R-38	MFWD 190	29,800	300	15	0.186	2.51	4.73	1.38	1.01	9.65	1.85	7.03	18.53
Peanut Dig/Invertor	6R-38	MFWD 190	43,400	300	15	0.124	1.67	3.15	0.94	0.67	6.45	1.79	4.68	12.93
Peanut Dump Cart	6-Row	MFWD 190	48,500	300	20	0.310	4.18	7.88	0.87	1.69	14.64	4.16	11.70	30.51
Peanut Harvester	4R-30	MFWD 225	137,000	300	20	0.849	11.48	25.59	6.59	5.07	48.75	30.22	35.04	114.02
Peanut Harvester	4R-38	MFWD 225	137,000	300	20	0.934	12.62	28.14	7.25	5.57	53.60	34.33	38.52	126.46
Peanut Harvester	6R-38	MFWD 225	151,000	300	20	0.625	8.44	18.81	4.56	3.73	35.55	25.30	25.76	86.63
Peanut Lifter	6-Row	MFWD 225	6,500	300	20	0.100	1.35	3.01	0.13	0.59	5.09	0.16	4.12	9.38
Peanut Plt&Pre Fold.	12R-38	MFWD 190	91,000	150	8	0.080	1.81	2.04	2.74	0.43	7.04	5.83	3.03	15.91
Peanut Plt&Pre Rigid	8R-30	MFWD 190	46,000	150	8	0.152	3.44	3.88	2.63	0.83	10.80	5.60	5.77	22.17
Peanut Plt&Pre Rigid	8R-38	MFWD 190	43,400	150	8	0.120	2.72	3.07	1.96	0.66	8.42	4.17	4.56	17.16
Pipe Spool 160ac	1/4m roll	2WD 130	3,600	15	12	0.003	0.09	0.05	0.00	0.01	0.16	0.07	0.06	0.31
Pipe Trailer 1m/160a	30'	2WD 130	1,380	100	15	0.003	0.18	0.06	0.00	0.01	0.26	0.00	0.08	0.35
Plant & Pre-Folding	8R-38	MFWD 170	57,900	150	8	0.080	1.81	1.82	1.74	0.37	5.75	3.70	2.56	12.02
Plant & Pre-Folding	8R-38 2x1	MFWD 170	91,000	150	8	0.053	1.20	1.21	1.82	0.24	4.49	3.87	1.70	10.07
Plant & Pre-Folding	12R-20	MFWD 190	67,600	150	8	0.101	2.29	2.58	2.57	0.55	8.00	5.47	3.83	17.31
Plant & Pre-Folding	12R-30	MFWD 190	76,800	150	8	0.067	1.52	1.72	1.94	0.37	5.56	4.14	2.55	12.26
Plant & Pre-Folding	12R-38	MFWD 190	91,000	150	8	0.053	1.20	1.35	1.82	0.29	4.68	3.87	2.01	10.57
Plant & Pre-Folding	16R-30	MFWD 190	116,000	150	8	0.050	1.14	1.29	2.20	0.27	4.92	4.69	1.91	11.53
Plant & Pre-Folding	23R-15	MFWD 190	143,000	150	8	0.070	1.59	1.79	3.78	0.38	7.55	8.03	2.66	18.25
Plant & Pre-Folding	24R-20	MFWD 190	161,000	150	8	0.050	1.14	1.29	3.06	0.27	5.77	6.51	1.91	14.21
Plant & Pre-Folding	24R-30	MFWD 190	178,000	150	8	0.033	0.76	0.86	2.25	0.18	4.06	4.80	1.27	10.15
Plant & Pre-Folding	31R-15	MFWD 225	166,000	150	8	0.052	1.18	1.57	3.26	0.31	6.34	6.94	2.16	15.45
Plant & Pre-Folding	32R-15	MFWD 225	181,000	150	8	0.050	1.14	1.52	3.44	0.30	6.42	7.32	2.09	15.84
Plant & Pre-Rigid	4R-30	2WD 130	25,800	150	8	0.203	4.58	3.53	1.96	0.65	10.73	4.17	4.34	19.25
Plant & Pre-Rigid	4R-38	2WD 130	31,600	150	8	0.159	3.60	2.78	1.89	0.51	8.80	4.02	3.41	16.24
Plant & Pre-Rigid	6R-30	MFWD 150	25,900	150	8	0.135	3.05	2.71	1.31	0.54	7.63	2.79	3.65	14.08
Plant & Pre-Rigid	6R-38	MFWD 150	36,400	150	8	0.106	2.41	2.14	1.45	0.43	6.45	3.10	2.88	12.43
Plant & Pre-Rigid	8R-30	MFWD 170	46,000	150	8	0.101	2.29	2.31	1.75	0.46	6.82	3.72	3.24	13.79
Plant & Pre-Rigid	8R-38	MFWD 170	43,400	150	8	0.080	1.81	1.82	1.30	0.37	5.31	2.77	2.56	10.65
Plant & Pre-Rigid	11R-15	MFWD 170	53,700	150	8	0.148	3.34	3.37	2.98	0.68	10.38	6.34	4.73	21.46
Plant & Pre-Rigid	11R-20	MFWD 170	52,500	150	8	0.110	2.50	2.52	2.18	0.51	7.72	4.64	3.54	15.91
Plant & Pre-Rigid	12R-20	MFWD 190	54,300	150	8	0.101	2.29	2.58	2.06	0.55	7.49	4.39	3.83	15.72
Plant & Pre-Rigid	12R-30	MFWD 190	68,600	150	8	0.067	1.52	1.72	1.74	0.37	5.36	3.70	2.55	11.61
Plant & Pre-Rigid	15R-15	MFWD 190	67,500	150	8	0.108	2.45	2.76	2.74	0.59	8.55	5.84	4.10	18.50
Plant & Pre-TwinRow	12R-30/40	MFWD 225	137,000	150	8	0.053	1.20	1.60	2.74	0.31	5.87	5.83	2.20	13.91
Plant & Pre-TwinRow	8R-30/40	MFWD 225	114,000	150	8	0.080	1.81	2.41	3.43	0.47	8.13	7.29	3.30	18.74
Plant - Folding	8R-38	MFWD 170	50,600	150	8	0.074	1.68	1.69	1.41	0.34	5.13	3.00	2.38	10.52
Plant - Folding	8R-38 2x1	MFWD 170	82,300	150	8	0.049	1.11	1.12	1.53	0.22	4.00	3.25	1.58	8.85
Plant - Folding	12R-20	MFWD 190	60,400	150	8	0.094	2.12	2.39	2.13	0.51	7.17	4.54	3.56	15.27
Plant - Folding	12R-30	MFWD 190	68,200	150	8	0.062	1.41	1.59	1.60	0.34	4.96	3.41	2.37	10.76
Plant - Folding	12R-38	MFWD 190	82,300	150	8	0.049	1.11	1.26	1.53	0.27	4.18	3.25	1.87	9.31
Plant - Folding	16R-30	MFWD 190	10,700	150	8	0.047	1.06	1.19	0.18	0.25	2.70	0.40	1.78	4.89
Plant - Folding	23R-15	MFWD 190	134,000	150	8	0.065	1.47	1.66	3.29	0.35	6.79	6.99	2.47	16.25
Plant - Folding	24R-20	MFWD 190	152,000	150	8	0.047	1.06	1.19	2.68	0.25	5.20	5.71	1.78	12.70
Plant - Folding	24R-30	MFWD 190	178,000	150	8	0.031	0.70	0.79	2.09	0.17	3.77	4.45	1.18	9.42
Plant - Folding	31R-15	MFWD 225	157,000	150	8	0.048	1.09	1.46	2.86	0.29	5.72	6.09	2.00	13.83
Plant - Folding	32R-15	MFWD 225	173,000	150	8	0.047	1.06	1.41	3.05	0.28	5.82	6.50	1.94	14.26
Plant - Rigid	4R-30	2WD 130	18,500	150	8	0.188	4.25	3.28	1.30	0.60	9.45	2.78	4.03	16.26
Plant - Rigid	4R-38	2WD 130	24,300	150	8	0.148	3.35	2.58	1.35	0.47	7.76	2.87	3.17	13.81
Plant - Rigid	6R-30	MFWD 150	30,500	150	8	0.125	2.83	2.52	1.43	0.51	7.30	3.05	3.39	13.75
Plant - Rigid	6R-38	MFWD 150	29,200	150	8	0.099	2.24	1.99	1.08	0.40	5.72	2.31	2.67	10.71
Plant - Rigid	8R-30	MFWD 170	38,700	150	8	0.094	2.12	2.14	1.36	0.43	6.07	2.90	3.01	11.99
Plant - Rigid	8R-38	MFWD 170	36,200	150	8	0.074	1.68	1.69	1.01	0.34	4.73	2.15	2.38	9.26
Plant - Rigid	11R-15	MFWD 170	46,400	150	8	0.137	3.10	3.13	2.39	0.63	9.26	5.09	4.39	18.75
Plant - Rigid	11R-20	MFWD 170	45,200	150	8	0.103	2.32	2.34	1.74	0.47	6.89	3.71	3.29	13.89
Plant - Rigid	12R-20	MFWD 190	47,100	150	8	0.094	2.12	2.39	1.66	0.51	6.70	3.54	3.56	13.80
Plant - Rigid	12R-30	MFWD 190	59,900	150	8	0.062	1.41	1.59	1.41	0.34	4.77	3.00	2.37	10.14
Plant - Rigid	15R-15	2WD 150	58,900	150	8	0.094	2.12	1.89	2.08	0.32	6.42	4.42	2.13	12.98
Plant - TwinRow	12R-30/40	MFWD 225	128,000	150	8	0.049	1.11	1.49	2.38	0.29	5.29	5.06	2.04	12.40
Plant - TwinRow	8R-30/40	MFWD 225	107,000	150	8	0.074	1.68	2.24	2.99	0.44	7.36	6.35	3.07	16.79
Roller/Cultipacker	12'	2WD 130	6,910	300	12	0.124	1.68	2.16	0.20	0.40	4.44	0.31	2.66	7.41
Roller/Cultipacker	20'	MFWD 150	17,000	300	12	0.074	1.00	1.49	0.29	0.30	3.11	0.45	2.01	5.58
Roller/Cultipacker	30'	MFWD 170	19,100	300	12	0.049	0.67	1.13	0.22	0.23	2.25	0.34	1.58	4.19
Roller/Cultipacker	38'	MFWD 225	21,300	300	12	0.039	0.53	1.18	0.19	0.23	2.14	0.30	1.62	4.06
Roller/Stubble	20'	2WD 50	13,500	300	12	0.074	1.00	0.49	0.23	0.05	1.79	0.36	0.35	2.51
Roller/Stubble	32'	MFWD 225	22,800	300	12	0.046	0.63	1.40	0.25	0.27	2.56	0.38	1.92	4.87

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (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-----							
Rotary Cutter	7'	MFWD 130	5,245	185	10	0.168	2.27	2.92	0.71	0.59	6.51	0.55	3.98	11.06
Rotary Cutter	12'	2WD 150	11,500	185	10	0.098	1.32	1.97	0.91	0.33	4.54	0.71	2.22	7.48
Rotary Cutter-Flex	15'	MFWD 150	21,100	185	10	0.078	1.06	1.57	1.34	0.31	4.30	1.04	2.12	7.46
Rotary Cutter-Flex	20'	MFWD 150	29,300	185	10	0.058	0.79	1.18	1.39	0.23	3.61	1.09	1.59	6.29
Row Cond & Inc-Fold.	26'	MFWD 190	26,600	100	10	0.063	1.14	1.61	0.42	0.34	3.52	1.97	2.39	7.89
Row Cond & Inc-Fold.	38'	MFWD 225	33,800	100	10	0.043	0.78	1.30	0.36	0.25	2.71	1.71	1.79	6.22
Row Cond & Inc-Rigid	13'	2WD 130	16,800	100	10	0.126	2.28	2.20	0.53	0.40	5.43	2.49	2.71	10.64
Row Cond & Inc-Rigid	21'	2WD 170	20,700	100	10	0.078	1.41	1.78	0.40	0.29	3.90	1.90	2.01	7.82
Row Cond & Inc-Rigid	26'	MFWD 190	23,400	100	10	0.026	0.48	0.67	0.15	0.14	1.45	0.72	1.00	3.19
Row Cond Folding	26'	MFWD 225	19,300	100	10	0.059	0.80	1.79	0.28	0.35	3.25	1.34	2.46	7.05
Row Cond Folding	38'	MFWD 225	25,800	100	10	0.040	0.55	1.23	0.26	0.24	2.29	1.23	1.68	5.20
Row Cond Rigid	13'	2WD 130	9,540	100	10	0.119	1.61	2.07	0.28	0.38	4.36	1.33	2.55	8.24
Row Cond Rigid	21'	2WD 170	13,400	100	10	0.073	0.99	1.68	0.24	0.27	3.20	1.15	1.89	6.26
Row Cond Rigid	26'	MFWD 190	16,200	100	10	0.059	0.80	1.51	0.24	0.32	2.89	1.13	2.25	6.28
Row Cond./Roll-Fol	30'	MFWD 190	35,600	160	10	0.062	0.84	1.58	0.55	0.34	3.33	1.62	2.36	7.31
Row Cond./Roll-Fold.	26'	MFWD 190	26,800	160	10	0.072	0.97	1.83	0.48	0.39	3.68	1.41	2.72	7.82
Row Cond./Roll-Rigid	40'	MFWD 225	23,700	160	10	0.046	0.63	1.41	0.27	0.27	2.60	0.81	1.93	5.34
Row Cond./Roll-Rig	21'	MFWD 190	23,000	160	10	0.089	1.20	2.27	0.51	0.48	4.47	1.50	3.37	9.35
Row Cond./Roll-Rig	26'	MFWD 190	25,800	160	10	0.072	0.97	1.83	0.46	0.39	3.66	1.35	2.72	7.75
Spin Spreader	5 ton	MFWD 190	12,400	100	8	0.042	0.94	1.07	0.29	0.23	2.54	0.65	1.58	4.78
Spray (ATV Ropewick)	75"	800 CC	720	200	8	0.260	4.69	0.45	0.08	0.49	5.73	0.11	2.13	7.98
Spray (ATV)	20'	800 CC	1,700	200	8	0.084	1.52	0.14	0.06	0.16	1.90	0.08	0.69	2.68
Spray (Band)	27' Fold	MFWD 170	7,270	200	8	0.062	1.13	1.42	0.21	0.28	3.06	0.28	2.00	5.34
Spray (Band)	40' Fold	MFWD 170	8,630	200	8	0.042	0.76	0.96	0.17	0.19	2.09	0.22	1.35	3.67
Spray (Band)	50' Fold	MFWD 170	13,700	200	8	0.033	0.61	0.77	0.21	0.15	1.75	0.28	1.08	3.12
Spray (Band)	60' Fold	MFWD 170	15,600	200	8	0.028	0.50	0.64	0.20	0.13	1.48	0.27	0.90	2.66
Spray (Bcast/HB)	13' Rigid	MFWD 150	6,760	200	8	0.130	2.34	2.61	0.41	0.52	5.90	0.54	3.51	9.96
Spray (Bcast/HB)	20' Rigid	MFWD 150	7,920	200	8	0.084	1.52	1.69	0.31	0.34	3.88	0.41	2.28	6.58
Spray (Bcast/HB)	27' Fold	MFWD 170	15,100	200	8	0.062	1.13	1.42	0.44	0.28	3.29	0.58	2.00	5.88
Spray (Bcast/HB)	27' Rigid	MFWD 170	9,570	200	8	0.062	1.13	1.42	0.28	0.28	3.12	0.37	2.00	5.50
Spray (Bcast/HB)	30' Fold	MFWD 170	18,600	200	8	0.056	1.01	1.28	0.49	0.26	3.05	0.65	1.80	5.50
Spray (Bcast/HB)	40' Fold	MFWD 170	21,800	200	8	0.042	0.76	0.96	0.43	0.19	2.35	0.57	1.35	4.27
Spray (Broadcast)	27'	MFWD 170	7,270	200	8	0.062	1.13	1.42	0.21	0.28	3.06	0.28	2.00	5.34
Spray (Broadcast)	40'	MFWD 170	8,630	200	8	0.042	0.76	0.96	0.17	0.19	2.09	0.22	1.35	3.67
Spray (Broadcast)	50'	MFWD 170	13,700	200	8	0.033	0.61	0.77	0.21	0.15	1.75	0.28	1.08	3.12
Spray (Broadcast)	60'	MFWD 170	15,600	200	8	0.028	0.50	0.64	0.20	0.13	1.48	0.27	0.90	2.66
Spray (Direct/Hood)	8R-30	MFWD 170	20,000	200	8	0.084	1.52	1.92	0.79	0.39	4.63	1.05	2.70	8.39
Spray (Direct/Hood)	8R-38	MFWD 170	21,500	200	8	0.066	1.20	1.52	0.67	0.30	3.71	0.89	2.13	6.74
Spray (Direct/Hood)	12R-30	MFWD 170	24,800	200	8	0.056	1.01	1.28	0.65	0.26	3.21	0.87	1.80	5.89
Spray (Direct/Hood)	12R-38	MFWD 170	26,600	200	8	0.044	0.80	1.01	0.55	0.20	2.57	0.73	1.42	4.73
Spray (Direct/Layby)	8R-30	MFWD 170	11,300	200	8	0.084	1.52	1.92	0.44	0.39	4.29	0.59	2.70	7.58
Spray (Direct/Layby)	8R-38	MFWD 170	11,300	200	8	0.066	1.20	1.52	0.35	0.30	3.39	0.47	2.13	5.99
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	14,900	200	8	0.044	0.80	1.01	0.31	0.20	2.33	0.41	1.42	4.16
Spray (Direct/Layby)	12R-30	MFWD 170	14,900	200	8	0.056	1.01	1.28	0.39	0.26	2.95	0.52	1.80	5.28
Spray (Direct/Layby)	12R-38	MFWD 170	14,900	200	8	0.044	0.80	1.01	0.31	0.20	2.33	0.41	1.42	4.16
Spray (Direct/Layby)	16R-20	MFWD 225	17,100	200	8	0.062	1.13	1.88	0.50	0.37	3.89	0.66	2.58	7.14
Spray (Levee Leaper)	50'	MFWD 225	13,200	200	8	0.033	0.61	1.01	0.20	0.20	2.04	0.27	1.39	3.71
Spray (Pull Type)	60'	MFWD 225	40,700	200	8	0.028	0.50	0.84	0.53	0.16	2.06	0.71	1.16	3.94
Spray (Pull Type)	80'	MFWD 225	52,500	200	8	0.021	0.38	0.63	0.52	0.12	1.66	0.69	0.87	3.22
Spray (Pull Type)	90'	2WD 50	53,200	200	8	0.018	0.33	0.12	0.46	0.01	0.94	0.62	0.08	1.65
Spray (Pull Type)	120'	MFWD 225	80,900	200	8	0.014	0.25	0.42	0.53	0.08	1.29	0.71	0.58	2.58
Spray (Ropewick)	20'	MFWD 190	4,100	200	8	0.084	1.52	2.15	0.16	0.46	4.30	0.21	3.19	7.71
Spray (Spot)	27'	MFWD 170	7,270	200	8	0.062	1.13	1.42	0.21	0.28	3.06	0.28	2.00	5.34
Spray (Spot)	40'	MFWD 170	8,630	200	8	0.042	0.76	0.96	0.17	0.19	2.09	0.22	1.35	3.67
Spray (Spot)	50'	MFWD 170	13,700	200	8	0.033	0.61	0.77	0.21	0.15	1.75	0.28	1.08	3.12
Spray (Spot)	60'	MFWD 225	15,600	200	8	0.028	0.50	0.84	0.20	0.16	1.73	0.27	1.16	3.17
Stalk Shredder	14'	MFWD 150	21,100	200	10	0.117	1.59	2.36	2.17	0.47	6.61	1.45	3.18	11.24
Stalk Shredder Flex	20'	MFWD 150	29,300	200	10	0.082	1.11	1.65	2.11	0.33	5.22	1.41	2.22	8.85
Stalk Shredder-Flail	12'	MFWD 150	17,400	200	10	0.137	1.85	2.76	2.09	0.55	7.26	1.39	3.71	12.37
Stalk Shredder-Flail	15'	MFWD 150	21,900	200	10	0.110	1.48	2.20	2.10	0.44	6.24	1.40	2.96	10.62
Stalk Shredder-Flail	18'	MFWD 150	29,200	200	10	0.091	1.23	1.84	2.34	0.37	5.79	1.56	2.47	9.83
Stalk Shredder-Flail	20'	MFWD 150	29,000	200	10	0.082	1.11	1.65	2.09	0.33	5.19	1.39	2.22	8.82
Stalk Shredder-Flail	25'	MFWD 150	41,000	200	10	0.066	0.89	1.32	2.36	0.26	4.85	1.58	1.78	8.21
Subsoiler	3 shank	MFWD 190	5,810	100	15	0.204	2.76	5.19	0.39	1.11	9.46	1.11	7.71	18.30
Subsoiler	4 shank	MFWD 225	9,200	100	15	0.153	2.07	4.62	0.47	0.91	8.08	1.32	6.33	15.75
Subsoiler	5 shank	MFWD 225	12,600	100	15	0.122	1.65	3.68	0.51	0.73	6.58	1.44	5.04	13.07
Subsoiler low-till	6 shank	MFWD 225	14,600	100	15	0.102	1.38	3.07	0.49	0.60	5.56	1.40	4.21	11.17
Subsoiler low-till	8 shank	MFWD 225	20,000	100	15	0.076	1.03	2.30	0.51	0.45	4.30	1.43	3.15	8.89

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, 2019

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Approach Prima	pt	42.10
Agri-Dex	pt	2.39	Apron Maxx RTA	oz	0.95
Crop Oil Conc. (Pet.)	pt	2.37	Avicta Complete Bean	oz	0.49
Crop Oil Conc. (Veg.)	pt	2.58	Bravo Weather Stick	pt	6.88
Dyne-A-Pak	pt	4.80	Captan 50 WP	lb	4.28
Induce	pt	3.59	Cotton Seed Trt.	acre	20.00
MSO	pt	2.09	CruiserMaxx	oz	4.28
Penetrator Plus	pt	2.34	Headline EC	oz	3.11
Surfactant	pt	3.59	Propimax EC	pt	12.88
xxClass Act NG	pt	2.38	Prosaro	oz	2.56
XXHerbimax	pt	1.88	Quadris	oz	2.25
xxPrime Oil	pt	2.35	Quadris Top	oz	2.61
xxSuperMax AMS	pt	2.67	Quadris Top SBX	oz	2.75
CLEANING			Quilt	pt	18.55
Cleaning Peanuts	ton	18.00	Quilt XCEL	pt	25.43
CROP CONSULTANT			Stratego	pt	24.58
Corn Consultant	acre	6.00	Stratego YLD	oz	4.28
Cotton Consultant	acre	8.00	Tilt 3.6 EC	oz	0.75
Peanut Consultant	acre	9.25	Tilt/ Bravo SE	oz	0.41
Rice Consultant	acre	8.00	GINNING		
Sorghum Consultant	acre	6.00	Gin & Haul	lb	0.11
Soybeans Consultant	acre	6.50	GROWTH REGULATORS		
Wheat Consultant	acre	5.50	Mepex	oz	0.08
CUSTOM FERTILIZE			Mepichlor 4.2%	oz	0.08
App Fert by Air	cwt	7.00	Mepiquat	oz	0.08
App Fert by Air (Mi)	appl	7.00	Mepstar	oz	0.08
Custom Apply Fert	acre	7.50	Palisade	oz	1.25
CUSTOM LIME			Stance	oz	1.25
Lime (Spread)	ton	38.00	xxPentia	pt	6.46
CUSTOM PLANT			HARVEST AIDS		
Custom Plant	acre	7.50	Adios	oz	1.99
Custom Plant Air	cwt	7.00	Aim 2EC	oz	5.65
CUSTOM			Def/Folex	pt	10.90
App by Air (3 gal)	appl	5.00	Defol 5	gal	5.40
App by Air (5 gal)	appl	6.50	Display	pt	40.61
App by Air (10 gal)	appl	9.00	Ethephon 6E	pt	3.53
Custom Spray Ground	acre	7.00	Finish 6	pt	9.60
DRYING			Folex 6EC	pt	10.90
Dry Corn	bu	0.19	Freefall SC	oz	0.97
Dry Grain Sorghum	cwt	0.25	Ginstar EC	pt	26.41
Dry Peanuts	ton	24.00	Gramoxone SL	oz	0.15
Dry Rice	bu	0.40	Sharpen	oz	6.45
ERADICATION FEE			Sodium Chlorate 5L	gal	5.40
Eradication	acre	1.00	SuperBoll	oz	0.22
FERTILIZERS			Thidiazuron 4lb	oz	0.97
Agrotain Ultra	pt	9.12	Tribufos 6lb	pt	10.90
Amm Sulfate (21% N)	cwt	14.50	HAULING		
Boron Plus	pt	3.50	Haul Corn	bu	0.23
DAP	cwt	23.76	Haul Peanuts	ton	14.50
Fert 10-34-0	cwt	22.25	Haul Rice	bu	0.35
Fert 10-34-0	gal	2.59	Haul Sorghum	bu	0.25
Fert 11-37-0	cwt	26.50	Haul Soybeans	bu	0.27
Fert 33-0-0-12S	cwt	18.00	Haul Wheat	bu	0.26
Fert 41-0-0-4	cwt	14.25	HERBICIDES		
Lime	ton	28.00	2,4-D Ester	pt	4.17
NBPT	pt	9.12	2,4-D Amine 4	pt	2.40
Phosphorus (46% P2O5)	cwt	23.75	AAtrex 4L	pt	2.12
Potash (60% K2O)	cwt	20.00	Accent Q	oz	23.85
Sulfur Plus	pt	3.15	Aim	oz	5.65
UAN (32% N)	cwt	11.25	Anthem	oz	3.08
UAN (32%)	gal	1.24	Anthem Maxx	oz	6.16
UAN + Sulfur (28%)	cwt	12.40	Armezon Pro	oz	1.26
UAN + Sulfur (28%)	gal	1.38	Atrazine 4L	pt	1.98
Urea, Solid (46% N)	cwt	14.50	Atrazine 90DF	lb	3.38
Zinc Plus	pt	4.99	Authority Elite	pt	15.67
FUNGICIDES			Authority Maxx	lb	64.05
Aframe	oz	1.91	Authority MTZ	lb	26.30
Alfa Guard	lb	1.55	Axial XL	oz	1.18
Allegiance Flowable	pt	49.00	Axiom	oz	1.92

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2019(continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Barrage	pt	6.63	Sharpen	oz	6.45
Boundary	pt	11.21	Sinister	pt	15.63
Broadaxe	pt	16.57	Stalwart	pt	4.80
Bucaneer Plus	pt	1.48	Stam 80 EDF	lb	9.64
Butyrac 200 (2,4-DB)	pt	4.34	Stam M4	qt	7.84
Bxxolero	pt	7.73	Staple LX	oz	7.63
Cadre	oz	3.54	Sterling Blue	pt	7.82
Caparol	pt	4.52	Storm	pt	11.41
Capreno	oz	7.13	Superwham	qt	9.20
Cinch ATZ	pt	5.89	Suprend	lb	13.74
Clarity	pt	11.51	Synchrony XP	oz	12.71
Classic	oz	17.18	Tempest	oz	1.84
Clearpath	lb	61.27	Touchdown Total	qt	6.97
Clethomine 2E	oz	0.56	Trifluralin	pt	3.56
Clincher SF	oz	2.34	Triflurex	pt	3.86
Command 3ME	pt	19.93	Ultra Blazer	pt	10.26
Corvus	oz	7.29	Valor SX	oz	4.57
Cotoran	pt	6.42	Warrant	pt	4.84
Declare	oz	1.64	XtendiMax	oz	9.10
Dicamba	pt	8.48	Zidua	oz	9.05
Direx	pt	2.93	INOCULANT		
Diuron	pt	2.90	Inoculant-Soybean	acre	1.55
Dual II Magnum	pt	14.83	Optimize LIFT	oz	0.55
Dual Magnum	pt	13.81	INSECTICIDES		
Duet	pt	5.35	Abamectin .15EC	oz	0.95
Endigo	oz	1.80	Acephate 90%	lb	8.70
Engenia	oz	1.02	Acephate 90SP	lb	7.92
Facet L	pt	15.25	Admire Pro	oz	1.80
Fierce	oz	7.54	Baythroid XL	oz	2.65
First Rate	oz	43.40	Belt	oz	7.90
Flexstar	pt	8.41	Bidrin 8EC	oz	1.26
Fusilade DX	oz	1.00	Bifenthrin	oz	0.76
Glyphosate 3lbs a.e	pt	2.16	Bifenture 2EC	oz	0.76
Glyphosate 3lbs a.e	oz	0.14	Brigade EC	pt	12.37
Gramoxone SL 2.0	oz	0.15	Capture LFR	oz	2.28
Grandstand R	pt	15.86	Centric 40WG	oz	5.37
Halex GT	pt	7.80	Diamond .83EC	oz	1.40
Halomax	oz	21.44	Dimethoate 4E	pt	5.35
Harmony Extra SG	oz	13.79	Dimilin 2L	oz	2.13
Hero	pt	25.77	Force 3G	lb	6.03
Leadoff	oz	5.82	Gaucho 600	oz	2.36
Lexar	pt	8.01	Imidacloprid 4F	oz	1.00
Liberty 280	oz	0.59	Imidan 70 WSB	oz	0.67
Loyant	oz	0.00	IncidentalPestTrt \$8	acre	8.00
Metribuzin 4L	pt	9.98	IncidentalPestTrt\$15	acre	15.00
Metribuzin 75	lb	16.40	IncidentalPestTrt\$22	acre	22.00
Newpath	oz	3.83	IncidentalPestTrt\$30	acre	30.00
Osprey	oz	3.62	Intrepid 2F	oz	2.03
Outlook	pt	16.60	Intruder 70WSP	oz	9.05
Paraquat	oz	0.24	Karate Z	oz	2.74
Parazone 3SL	oz	0.24	Lambda	oz	1.09
Permit	oz	22.46	Lannate LV	pt	10.99
Permit Plus	oz	21.02	Macho	oz	0.64
Prefix	pt	6.53	Malathion 5E	pt	5.50
Provisia	oz	0.78	Malathion 8E	pt	5.50
Prowl 3.3 EC	pt	6.09	Mustang Max	oz	1.34
RealmQ	oz	4.97	Nuprid 4F	oz	1.06
RebelEx	oz	2.51	Orthene 90	lb	9.49
Reflex	pt	6.53	Permethrin	oz	0.49
Regiment	oz	44.90	Pounce 25WP	lb	14.15
Resicore	oz	0.58	Prevathon	oz	1.32
Resource	oz	1.83	Radiant	oz	6.82
RiceBeaux	pt	5.85	Sevin 4F	pt	6.22
Riceshot	pt	3.87	Sevin XLR Plus	qt	13.23
Ricestar HT	pt	24.35	Sivanto Prime	oz	2.52
Roundup Power Max	oz	0.18	Transform WG	oz	8.18
Roundup PowerMax	pt	2.80	Warrior II	oz	2.67
Roundup WeatherMax	oz	0.26	IRRIGATION SUPPLIES		
Roundup WeatherMax	pt	4.17	Roll-Out Pipe	ft	0.25
Select Max	pt	12.71	SEED/PLANTS		
Sequence	pt	5.94			(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2019 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Corn Seed Conv.	thous	2.26	Rice Seed Trt/Insect	lbseed	0.23
Corn Seed BtRR	thous	3.63	Sorghum Concept	lb	2.10
Corn Seed RR2	thous	3.36	Sorghum Concept+ Po	lb	3.96
Cotton Seed B3XF	thous	2.40	Soybean Seed LL	lb	1.42
Cotton Seed GLB2	thous	2.54	Soybean Seed RR2	lb	1.34
Cotton Seed GLTP	thous	2.11	Soybean Seed RR2X	lb	1.55
Cotton Seed W3FE	thous	2.34	SOIL TEST		
CSeed B3XF/W3RE/GLTP	thous	2.28	Soil Test	acre	10.00
Peanut Seed	lb	0.84	SURVEY & MARK LEVEES		
Rice Clearfield	lb	1.06	Survey & Mark Levees	acre	4.50
Rice Clrflld Hyb Trt	lb	5.70			
Rice Conv Hyb Trt	lb	5.70			
Rice Seed CF(Levees)	lb	1.06			
Rice Seed CFH(Levee)	lb	1.78			
Rice Seed Conv.	lb	0.28			
Rice Seed Cv(Levees)	lb	0.28			
Rice Seed CvH(Levee)	lb	1.66			
Rice Seed Provisia	lb	1.15			

Appendix Table 5. Estimated fuel prices
and interest rates, Mississippi, 2019

ITEM NAME	UNIT	PRICE
dollars		
FUEL TYPES		
Diesel Fuel	gal	2.60
Gasoline	gal	2.50
INTEREST RATES		
Short-term	%	6.00
Intermediate-term	%	6.50

Appendix Table 6. Labor types, wage rates and unallocated labor
Multipliers for crop enterprises, Mississippi, 2019

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	14.23
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, 2019

Crop	unit	Futures Contract Month	Futures Contract Price ^a	Basis ^b	Forward Contract Price ^c	Loan Rate ^d	Budget Price ^e
Corn	bu	Dec '19	4.00	-0.20	3.80	2.10	3.80
Cotton Lint	lb	Dec '19	0.7572	-0.0158	0.7414	0.52	0.7414
Cottonseed	lb						0.10 ^f
Grain Sorghum	bu				3.61	2.02	3.61
Peanuts	ton				385.00	355.00	385.00
Soybeans	bu	Nov '19	9.29	+0.01	9.30	5.21	9.30
Rice	bu	Nov '19	4.98	-0.38	4.60	2.96	4.60
Wheat	bu	Jul '19	5.52	-0.15	5.37	2.76	5.37

^a Average of the daily closing futures contract prices during the first 5 trading days in October 2018 for the stated contract months.

^b 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 2018 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.

^c The forward contract price for corn, cotton, rice, soybeans and wheat is the futures contract price plus the basis. The forward contract price for grain sorghum is 95% of the forward contract price for corn. The forward contract price for peanuts is an estimate from a poll of Extension Peanut Marketing Specialists.

^d Average Mississippi County CCC Loan Rate for 2018 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2018 Farm-stored Loan Rate for long grain rough rice. National 2019 Upland Cotton Marketing Assistance Loan Base Rate for cotton lint.

^e Price used in MSU Extension Service Planning Budgets.

^f Cottonseed price is the average marketing year price over the years 2008-2017.

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, 2019

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		0.37	0.09	0.22		0.02	0.70	0.64	1.34
Survey & Mark Levees	acre	4.50					0.14	4.64		4.64
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.97	0.26	0.58		0.05	1.86	1.73	3.59
Butt Levees										
Blade-Box	6'-7'		0.46	0.10	0.27		0.02	0.85	0.65	1.50
IRRIGATE LABOR	hour				0.68		0.02	0.70		0.70
Install Gates										
IRRIGATE LABOR	hour				2.72		0.08	2.80		2.80
Apply Water										
IRRIGATE LABOR	hour				6.80		0.20	7.00		7.00
Apply Water										
IRRIGATE LABOR	hour				6.80		0.17	6.97		6.97
Apply Water										
IRRIGATE LABOR	hour				6.80		0.14	6.94		6.94
Apply Water										
IRRIGATE LABOR	hour				6.80		0.10	6.90		6.90
Remove Gates										
IRRIGATE LABOR	hour				0.91		0.01	0.92		0.92
Tear Down Levees										
Levee Splitter (1/80)	32"		0.76	0.20	0.45		0.01	1.42	1.34	2.76
Tear Down Levees										
Levee Splitter (1/80)	32"		0.28	0.08	0.17		0.01	0.54	0.50	1.04
Land Forming (\$113)	each								9.26	9.26
Levee Gates	each								0.67	0.67
Well & Pump, Flood	each			5.91			0.15	6.06	20.19	26.25
Engine, Rice CL, 75	each								19.06	19.06
May Irrigation	ac-in		12.71	1.43			0.42	14.56		14.56
June Irrigation	ac-in		19.06	2.15			0.53	21.74		21.74
July Irrigation	ac-in		19.06	2.15			0.42	21.63		21.63
August Irrigation	ac-in		19.06	2.15			0.32	21.53		21.53
TOTALS		4.50	72.73	14.52	33.65	0.00	2.82	128.22	54.04	182.26

Note: Cost of production estimates are based on 2018 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, 2019

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					0.07	2.32	2.32
Build Inside Levees									
Levee Pull (1m/80a)	8 blade		0.73	0.20	0.43		0.04	1.40	1.30
Butt Levees									
Blade-Box	6'-7'		0.46	0.10	0.27		0.02	0.85	0.65
IRRIGATE LABOR	hour				0.68		0.02	0.70	0.70
Install Gates									
IRRIGATE LABOR	hour				1.36		0.04	1.40	1.40
Apply Water									
IRRIGATE LABOR	hour				4.53		0.14	4.67	4.67
Apply Water									
IRRIGATE LABOR	hour				4.53		0.11	4.64	4.64
Apply Water									
IRRIGATE LABOR	hour				4.53		0.09	4.62	4.62
Apply Water									
IRRIGATE LABOR	hour				4.53		0.07	4.60	4.60
Remove Gates									
IRRIGATE LABOR	hour				0.91		0.01	0.92	0.92
Tear Down Levees									
Levee Splitter (1/80	32"		0.57	0.16	0.34		0.01	1.08	1.01
Land Forming (\$450)	each							36.89	36.89
Levee Gates	each							0.67	0.67
Well & Pump, Flood	each			5.91			0.15	6.06	20.19
Engine, Rice SL, 75	each							19.06	19.06
May Irrigation	ac-in		12.71	1.75			0.43	14.89	14.89
June Irrigation	ac-in		14.83	2.04			0.42	17.29	17.29
July Irrigation	ac-in		14.83	2.04			0.34	17.21	17.21
August Irrigation	ac-in		14.83	2.04			0.25	17.12	17.12
TOTALS		2.25	58.96	14.24	22.56	0.00	2.22	100.23	79.77

Note: Cost of production estimates are based on 2018 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, 2019

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						0.07	2.32	2.32
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.73	0.20	0.43			0.04	1.40	1.30 2.70
Butt Levees										
Blade-Box	6'-7'		0.46	0.10	0.27			0.02	0.85	0.65 1.50
IRRIGATE LABOR	hour				0.68			0.02	0.70	0.70
Ditcher (1m/160a)			0.21	0.06	0.13			0.01	0.41	0.33 0.74
Roll-Out Pipe	ft	8.25						0.25	8.50	8.50
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll		0.28	0.09	0.40			0.02	0.79	0.72 1.51
Install Gates										
IRRIGATE LABOR	hour				1.36			0.04	1.40	1.40
Apply Water										
IRRIGATE LABOR	hour				1.81			0.05	1.86	1.86
Apply Water										
IRRIGATE LABOR	hour				1.81			0.05	1.86	1.86
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
Remove Gates										
IRRIGATE LABOR	hour				0.45				0.45	0.45
Tear Down Levees										
Levee Splitter (1/80	32"		0.57	0.16	0.34			0.01	1.08	1.01 2.09
Pick Up Pipe										
Pipe Spool 160ac	1/4m roll		0.14	0.04	0.19				0.37	0.36 0.73
Land Forming (\$450)	each								36.89	36.89
Levee Gates	each								0.34	0.34
Well & Pump, Flood	each			5.91				0.15	6.06	20.19 26.25
Engine, Mult In Rice	each								19.06	19.06
May Irrigation	ac-in		10.59	1.64				0.37	12.60	12.60
June Irrigation	ac-in		12.71	1.97				0.37	15.05	15.05
July Irrigation	ac-in		12.71	1.97				0.29	14.97	14.97
August Irrigation	ac-in		12.71	1.97				0.22	14.90	14.90
TOTALS		10.50	51.11	14.11	11.94	0.00	2.06		89.72	80.85 170.57

Note: Cost of production estimates are based on 2018 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, 2019

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		0.07	2.34	2.34
Apply Water									
IRRIGATE LABOR	hour				2.27		0.06	2.33	2.33
Apply Water									
IRRIGATE LABOR	hour				2.27		0.05	2.32	2.32
Apply Water									
IRRIGATE LABOR	hour				2.27		0.03	2.30	2.30
Land Forming (\$450)	each							36.89	36.89
Well & Pump, Flood	each			5.91			0.15	6.06	20.19
Engine, Rice SL, 75	each							19.06	19.06
May Irrigation	ac-in		8.47	1.17			0.29	9.93	9.93
June Irrigation	ac-in		10.59	1.46			0.30	12.35	12.35
July Irrigation	ac-in		10.59	1.46			0.24	12.29	12.29
August Irrigation	ac-in		10.59	1.46			0.18	12.23	12.23
TOTALS		0.00	40.24	11.46	9.53	0.00	1.38	62.61	76.14

Note: Cost of production estimates are based on 2018 input prices.

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