

**RICE
2018
PLANNING BUDGETS**

**Mississippi State University
Department of Agricultural Economics
Budget Report 2017-04**

October 2017

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 2018 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.

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2018 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 2017. (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 2017 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., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	0.6000	26.94	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.43	0.7500	16.82	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.28	75.0000	21.00	_____
Rice Seed Trt/Insect	lbseed	0.23	88.6000	20.38	_____
Rice Seed Cv (Levees)	lb	0.28	13.6000	3.81	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.61	1.5000	3.92	_____
Dyne-A-Pak	pt	4.73	0.5000	2.37	_____
Crop Oil Conc. (Pet.)	pt	2.74	0.4000	1.10	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.5475	7.39	_____
Harvesters	hour	13.51	0.2030	2.74	_____
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	13.50	0.5633	7.61	_____
DIESEL FUEL					
Tractors	gal	1.80	5.9886	10.79	_____
Harvesters	gal	1.80	3.3975	6.12	_____
Flood Irr.	gal	1.80	26.8827	48.40	_____
REPAIR & MAINTENANCE					
Implements	acre	8.36	1.0000	8.36	_____
Tractors	acre	3.37	1.0000	3.37	_____
Harvesters	acre	7.51	1.0000	7.51	_____
Flood Irr.	acre	13.79	1.0000	13.79	_____
INTEREST ON OP. CAP.	acre	11.78	1.0000	11.78	_____
TOTAL DIRECT EXPENSES				702.73	_____
FIXED EXPENSES					
Implements	acre	17.77	1.0000	17.77	_____
Tractors	acre	21.22	1.0000	21.22	_____
Harvesters	acre	29.63	1.0000	29.63	_____
Flood Irr.	acre	43.00	1.0000	43.00	_____
TOTAL FIXED EXPENSES				111.62	_____
TOTAL SPECIFIED EXPENSES				814.35	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	151.16	1.0000	151.16	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	45.19	1.0000	45.19	_____
ADJUVANTS	acre	8.91	1.0000	8.91	_____
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	13.51	0.7506	10.13	_____
RICE MGT. LABOR	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR	hour	13.50	0.5633	7.61	_____
DIESEL FUEL	gal	1.80	36.2688	65.31	_____
REPAIR & MAINTENANCE	acre	33.03	1.0000	33.03	_____
INTEREST ON OP. CAP.	acre	11.78	1.0000	11.78	_____

TOTAL DIRECT EXPENSES				702.73	_____
RETURNS ABOVE DIRECT EXPENSES				61.67	_____
TOTAL FIXED EXPENSES				111.62	_____

TOTAL SPECIFIED EXPENSES				814.35	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-49.95	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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					0.6000				
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				
Karate Z	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	156.0000				
Dry Rice	bu			1.00	Aug	156.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	
TOTALS							0.75	0.75	6.10	0.56

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.01	3.34	3.34
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Seed Conv.	lb	21.00						0.50	21.50	21.50
Rice Seed Trt/Insect	lbseed	17.25						0.41	17.66	17.66
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
Class Act NG	pt	1.19						0.03	1.22	1.22
MSO	pt	1.31						0.03	1.34	1.34
Seed Levees										
Rice Seed Cv(Levees)	lb	3.81						0.09	3.90	3.90
Rice Seed Trt/Insect	lbseed	3.13						0.07	3.20	3.20
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Regiment	oz	26.94						0.53	27.47	27.47
Dyne-A-Pak	pt	2.37						0.05	2.42	2.42
App Fert by Air	cwt	17.50						0.35	17.85	17.85
Urea, Solid (46% N)	cwt	35.48						0.70	36.18	36.18
NBPT	pt	6.75						0.13	6.88	6.88
Rice Management										
RICE MGT. LABOR	hour				2.72			0.05	2.77	2.77
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Facet L	pt	41.02						0.81	41.83	41.83
Permit	oz	16.82						0.33	17.15	17.15
Crop Oil Conc.(Pet.)	pt	1.10						0.02	1.12	1.12
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				4.53			0.07	4.60	4.60
App Fert by Air	cwt	10.50						0.17	10.67	10.67
Urea, Solid (46% N)	cwt	21.29						0.34	21.63	21.63
Rice Management										
RICE MGT. LABOR	hour				4.53			0.05	4.58	4.58
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Stratego	pt	20.78						0.25	21.03	21.03
Surfactant	pt	0.33							0.33	0.33
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (CL)	25' Rigid		6.12	10.25	5.21			0.17	21.75	33.91
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.43	55.03	55.03
Dry Rice	bu	62.40						0.49	62.89	62.89
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	4.50	50.36	14.55	33.65			1.85	104.91	47.55
TOTALS		526.34	65.31	33.03	66.27	0.00	11.78	702.73	111.62	814.35

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	84.78	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	45.19	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.50	3.47	2.61	0.33	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	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	3.38	0.00	0.00	0.00	0.00	0.00	15.73	9.52	11.33	11.33	11.10	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	12.72	13.20	13.20	13.20	7.07	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.83	8.06	2.15	2.15	10.72	3.10
INTEREST ON OP. CAP.	0.39	0.00	0.00	0.00	0.57	0.00	3.07	4.42	1.30	0.83	1.15	0.05
TOTAL DIRECT EXPENSES	8.55	0.00	0.00	0.00	18.59	0.00	132.35	228.66	83.18	70.84	147.04	13.52
NET INCOME	-8.55	0.00	0.00	0.00	-18.59	0.00	-132.35	-228.66	-83.18	-70.84	617.36	-13.52
NET INCOME TO DATE	-8.55	-8.55	-8.55	-8.55	-27.14	-27.14	-159.49	-388.15	-471.33	-542.17	75.19	61.67

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-357 -468	-338 -449	-318 -430	-299 -411	-280 -392	-261 -373	-242 -354	-223 -334	-204 -315	-185 -296	-166 -277
60	93.60	bu	-311 -423	-288 -400	-265 -377	-242 -354	-219 -331	-196 -308	-173 -285	-151 -262	-128 -239	-105 -216	-82 -193
70	109.20	bu	-266 -377	-239 -350	-212 -324	-185 -297	-159 -270	-132 -243	-105 -217	-78 -190	-52 -163	-25 -136	1 -110
80	124.80	bu	-220 -332	-189 -301	-159 -270	-128 -240	-98 -209	-67 -179	-37 -148	-6 -118	24 -87	54 -56	85 -26
90	140.40	bu	-174 -286	-140 -252	-106 -217	-71 -183	-37 -148	-2 -114	31 -80	65 -45	100 -11	134 22	169 57
100	156.00	bu	-129 -241	-91 -202	-52 -164	-14 -126	23 -88	61 -49	99 -11	138 26	176 64	214 102	252 141
110	171.60	bu	-83 -195	-41 -153	0 -111	42 -69	84 -27	126 14	168 56	210 98	252 140	294 182	336 224
120	187.20	bu	-38 -149	7 -104	53 -58	99 -12	145 33	190 79	236 125	282 171	328 216	374 262	420 308
130	202.80	bu	7 -104	56 -54	106 -5	156 44	205 94	255 143	305 193	354 243	404 293	454 342	504 392
140	218.40	bu	52 -58	106 -5	159 48	213 101	266 155	320 208	373 262	427 315	480 369	534 422	587 476
150	234.00	bu	98 -13	155 43	212 101	270 158	327 215	384 273	442 330	499 387	556 445	614 502	671 559

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 2017 input prices.

Table 2.A Estimated costs per acre
 Straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	0.6000	26.94	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.43	0.7500	16.82	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.28	75.0000	21.00	_____
Rice Seed Trt/Insect	lbseed	0.23	88.6000	20.38	_____
Rice Seed Cv (Levees)	lb	0.28	13.6000	3.81	_____
ADJUVANTS					
MSO	pt	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.73	0.5000	2.37	_____
Crop Oil Conc. (Pet.)	pt	2.74	0.4000	1.10	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.4999	6.74	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	5.5719	10.05	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	21.9949	39.58	_____
REPAIR & MAINTENANCE					
Implements	acre	7.93	1.0000	7.93	_____
Tractors	acre	3.14	1.0000	3.14	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	11.41	1.0000	11.41	_____
TOTAL DIRECT EXPENSES				669.03	_____
FIXED EXPENSES					
Implements	acre	16.84	1.0000	16.84	_____
Tractors	acre	19.79	1.0000	19.79	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.91	1.0000	66.91	_____
TOTAL FIXED EXPENSES				129.22	_____
TOTAL SPECIFIED EXPENSES				798.25	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	151.16	1.0000	151.16	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	45.19	1.0000	45.19	_____
ADJUVANTS	acre	8.91	1.0000	8.91	_____
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	13.51	0.6759	9.12	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	30.5114	54.93	_____
REPAIR & MAINTENANCE	acre	31.36	1.0000	31.36	_____
INTEREST ON OP. CAP.	acre	11.41	1.0000	11.41	_____

TOTAL DIRECT EXPENSES				669.03	_____
RETURNS ABOVE DIRECT EXPENSES				95.37	_____
TOTAL FIXED EXPENSES				129.22	_____

TOTAL SPECIFIED EXPENSES				798.25	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-33.85	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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					0.6000				
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				
Karate Z	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 2017 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., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Seed Conv.	lb	21.00						0.50	21.50	21.50
Rice Seed Trt/Insect	lbseed	17.25						0.41	17.66	17.66
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
MSO	pt	1.31						0.03	1.34	1.34
Class Act NG	pt	1.19						0.03	1.22	1.22
Seed Levees										
Rice Seed Cv(Levees)	lb	3.81						0.09	3.90	3.90
Rice Seed Trt/Insect	lbseed	3.13						0.07	3.20	3.20
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Regiment	oz	26.94						0.53	27.47	27.47
Dyne-A-Pak	pt	2.37						0.05	2.42	2.42
App Fert by Air	cwt	17.50						0.35	17.85	17.85
Urea, Solid (46% N)	cwt	35.48						0.70	36.18	36.18
NBPT	pt	6.75						0.13	6.88	6.88
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Facet L	pt	41.02						0.81	41.83	41.83
Permit	oz	16.82						0.33	17.15	17.15
Crop Oil Conc.(Pet.)	pt	1.10						0.02	1.12	1.12
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	10.50						0.17	10.67	10.67
Urea, Solid (46% N)	cwt	21.29						0.34	21.63	21.63
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Stratego	pt	20.78						0.25	21.03	21.03
Surfactant	pt	0.33							0.33	0.33
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.43	55.03	55.03
Dry Rice	bu	62.40						0.49	62.89	62.89
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	2.25	40.80	14.25	22.56			1.45	81.31	69.67
TOTALS		524.09	54.93	31.36	47.24	0.00	11.41	669.03	129.22	798.25

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	84.78	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	45.19	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.50	3.47	2.61	0.33	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	3.38	0.00	0.00	0.00	0.00	0.00	11.73	5.44	6.34	6.34	10.13	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	12.31	10.26	10.26	10.26	5.92	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.99	7.95	2.04	2.04	9.22	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	2.92	4.29	1.17	0.74	1.13	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	125.70	221.40	75.01	62.71	143.40	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-125.70	-221.40	-75.01	-62.71	621.00	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-156.33	-377.73	-452.74	-515.45	105.55	95.37

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-323 -452	-304 -433	-285 -414	-266 -395	-246 -376	-227 -357	-208 -337	-189 -318	-170 -299	-151 -280	-132 -261
60	93.60	bu	-277 -407	-254 -384	-232 -361	-209 -338	-186 -315	-163 -292	-140 -269	-117 -246	-94 -223	-71 -200	-48 -177
70	109.20	bu	-232 -361	-205 -334	-178 -308	-152 -281	-125 -254	-98 -227	-71 -201	-45 -174	-18 -147	8 -120	35 -94
80	124.80	bu	-186 -316	-156 -285	-125 -254	-95 -224	-64 -193	-33 -163	-3 -132	27 -101	57 -71	88 -40	118 -10
90	140.40	bu	-141 -270	-106 -236	-72 -201	-38 -167	-3 -132	30 -98	65 -64	99 -29	133 4	168 39	202 73
100	156.00	bu	-95 -224	-57 -186	-19 -148	18 -110	57 -72	95 -33	133 4	171 42	210 80	248 119	286 157
110	171.60	bu	-50 -179	-8 -137	33 -95	75 -53	117 -11	160 30	202 72	244 114	286 156	328 198	370 241
120	187.20	bu	-4 -133	41 -88	87 -42	132 3	178 49	224 95	270 141	316 187	362 233	408 278	453 324
130	202.80	bu	40 -88	90 -38	140 11	189 60	239 110	289 160	339 209	388 259	438 309	488 358	537 408
140	218.40	bu	86 -42	139 10	193 64	246 117	300 171	353 224	407 278	460 331	514 385	567 438	621 492
150	234.00	bu	131 2	189 60	246 117	303 174	361 232	418 289	475 346	533 404	590 461	647 518	705 576

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 2017 input prices.

Table 3.A Estimated costs per acre
 Straight levee rice
 Multi inlet flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	0.6000	26.94	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.43	0.7500	16.82	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Karate Z	oz	2.74	3.0000	8.22	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.28	75.0000	21.00	_____
Rice Seed Trt/Insect	lbseed	0.23	88.6000	20.38	_____
Rice Seed Cv(Levees)	lb	0.28	13.6000	3.81	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.61	1.5000	3.92	_____
Dyne-A-Pak	pt	4.73	0.5000	2.37	_____
Crop Oil Conc. (Pet.)	pt	2.74	0.5000	1.37	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.5281	7.12	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	5.8180	10.50	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	18.7364	33.73	_____
REPAIR & MAINTENANCE					
Implements	acre	7.99	1.0000	7.99	_____
Tractors	acre	3.27	1.0000	3.27	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	11.34	1.0000	11.34	_____
TOTAL DIRECT EXPENSES				661.33	_____
FIXED EXPENSES					
Implements	acre	17.29	1.0000	17.29	_____
Tractors	acre	20.64	1.0000	20.64	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.58	1.0000	66.58	_____
TOTAL FIXED EXPENSES				130.19	_____
TOTAL SPECIFIED EXPENSES				791.52	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	151.16	1.0000	151.16	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	45.19	1.0000	45.19	_____
ADJUVANTS	acre	9.18	1.0000	9.18	_____
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	13.51	0.7041	9.50	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	27.4990	49.53	_____
REPAIR & MAINTENANCE	acre	31.23	1.0000	31.23	_____
INTEREST ON OP. CAP.	acre	11.34	1.0000	11.34	_____

TOTAL DIRECT EXPENSES				661.33	_____
RETURNS ABOVE DIRECT EXPENSES				103.07	_____
TOTAL FIXED EXPENSES				130.19	_____

TOTAL SPECIFIED EXPENSES				791.52	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-27.12	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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					0.6000				
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				
Karate Z	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 2017 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., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Seed Conv.	lb	21.00						0.50	21.50	21.50
Rice Seed Trt/Insect	lbseed	17.25						0.41	17.66	17.66
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
Class Act NG	pt	1.19						0.03	1.22	1.22
MSO	pt	1.31						0.03	1.34	1.34
Seed Levees										
Rice Seed Cv(Levees)	lb	3.81						0.09	3.90	3.90
Rice Seed Trt/Insect	lbseed	3.13						0.07	3.20	3.20
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Regiment	oz	26.94						0.53	27.47	27.47
Dyne-A-Pak	pt	2.37						0.05	2.42	2.42
App Fert by Air	cwt	17.50						0.35	17.85	17.85
Urea, Solid (46% N)	cwt	35.48						0.70	36.18	36.18
NBPT	pt	6.75						0.13	6.88	6.88
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Facet L	pt	41.02						0.81	41.83	41.83
Permit	oz	16.82						0.33	17.15	17.15
Crop Oil Conc.(Pet.)	pt	1.37						0.03	1.40	1.40
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	10.50						0.17	10.67	10.67
Urea, Solid (46% N)	cwt	21.29						0.34	21.63	21.63
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Stratego	pt	20.78						0.25	21.03	21.03
Surfactant	pt	0.33							0.33	0.33
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.43	55.03	55.03
Dry Rice	bu	62.40						0.49	62.89	62.89
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	10.50	35.40	14.12	11.94			1.37	73.33	70.64
TOTALS		532.61	49.53	31.23	36.62	0.00	11.34	661.33	130.19	791.52

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	84.78	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	8.22	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	45.19	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.50	3.74	2.61	0.33	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	3.38	0.00	0.00	0.00	0.00	0.00	9.54	2.72	3.62	3.62	9.86	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	11.19	8.80	8.80	8.80	6.02	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	5.03	7.88	1.97	1.97	9.26	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	3.04	4.22	1.11	0.69	1.12	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	130.80	217.35	70.70	58.41	143.26	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-130.80	-217.35	-70.70	-58.41	621.14	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-161.43	-378.78	-449.48	-507.89	113.25	103.07

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-315 -445	-296 -426	-277 -407	-258 -388	-239 -369	-220 -350	-201 -331	-181 -312	-162 -293	-143 -273	-124 -254
60	93.60	bu	-270 -400	-247 -377	-224 -354	-201 -331	-178 -308	-155 -285	-132 -262	-109 -239	-86 -216	-63 -193	-40 -171
70	109.20	bu	-224 -354	-197 -328	-171 -301	-144 -274	-117 -247	-90 -221	-64 -194	-37 -167	-10 -140	16 -114	42 -87
80	124.80	bu	-179 -309	-148 -278	-117 -248	-87 -217	-56 -186	-26 -156	4 -125	34 -95	65 -64	96 -34	126 -3
90	140.40	bu	-133 -263	-99 -229	-64 -194	-30 -160	4 -126	38 -91	72 -57	107 -22	141 11	176 45	210 80
100	156.00	bu	-88 -218	-49 -180	-11 -141	26 -103	64 -65	103 -27	141 11	179 49	217 87	255 125	294 163
110	171.60	bu	-42 -172	-0 -130	41 -88	83 -46	125 -4	167 37	209 79	251 121	293 163	335 205	377 247
120	187.20	bu	3 -127	48 -81	94 -35	140 10	186 56	232 102	278 148	324 193	369 239	415 285	461 331
130	202.80	bu	48 -81	98 -31	147 17	197 67	247 117	297 166	346 216	396 266	446 315	495 365	545 415
140	218.40	bu	94 -36	147 17	201 70	254 124	308 177	361 231	415 284	468 338	522 391	575 445	629 499
150	234.00	bu	139 9	196 66	254 124	311 181	368 238	426 296	483 353	540 410	598 468	655 525	712 582

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 2017 input prices.

Table 4.A Estimated costs per acre
 Straight levee rice - zero grade
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	0.6000	26.94	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.43	0.7500	16.82	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Seed Conv.	lb	0.28	75.0000	21.00	_____
Rice Seed Trt/Insect	lbseed	0.23	75.0000	17.25	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.61	1.5000	3.92	_____
Dyne-A-Pak	pt	4.73	0.5000	2.37	_____
Crop Oil Conc. (Pet.)	pt	2.74	0.5000	1.37	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.4228	5.70	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	4.8970	8.83	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	15.4779	27.86	_____
REPAIR & MAINTENANCE					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	2.77	1.0000	2.77	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.	acre	10.68	1.0000	10.68	_____
TOTAL DIRECT EXPENSES				630.62	_____
FIXED EXPENSES					
Implements	acre	16.40	1.0000	16.40	_____
Tractors	acre	17.47	1.0000	17.47	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.25	1.0000	66.25	_____
TOTAL FIXED EXPENSES				125.80	_____
TOTAL SPECIFIED EXPENSES				756.42	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	43.25	1.0000	43.25	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	151.16	1.0000	151.16	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	38.25	1.0000	38.25	_____
ADJUVANTS	acre	9.18	1.0000	9.18	_____
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	13.51	0.5988	8.08	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	23.3194	41.99	_____
REPAIR & MAINTENANCE	acre	28.57	1.0000	28.57	_____
INTEREST ON OP. CAP.	acre	10.68	1.0000	10.68	_____

TOTAL DIRECT EXPENSES				630.62	_____
RETURNS ABOVE DIRECT EXPENSES				133.78	_____
TOTAL FIXED EXPENSES				125.80	_____

TOTAL SPECIFIED EXPENSES				756.42	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				7.98	_____

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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					0.6000				
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				
Karate Z	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 2017 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., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Seed Conv.	lb	21.00						0.50	21.50	21.50
Rice Seed Trt/Insect	lbseed	17.25						0.41	17.66	17.66
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
Class Act NG	pt	1.19						0.03	1.22	1.22
MSO	pt	1.31						0.03	1.34	1.34
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Regiment	oz	26.94						0.53	27.47	27.47
Dyne-A-Pak	pt	2.37						0.05	2.42	2.42
App Fert by Air	cwt	17.50						0.35	17.85	17.85
Urea, Solid (46% N)	cwt	35.48						0.70	36.18	36.18
NBPT	pt	6.75						0.13	6.88	6.88
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Facet L	pt	41.02						0.81	41.83	41.83
Permit	oz	16.82						0.33	17.15	17.15
Crop Oil Conc.(Pet.)	pt	1.37						0.03	1.40	1.40
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	10.50						0.17	10.67	10.67
Urea, Solid (46% N)	cwt	21.29						0.34	21.63	21.63
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Stratego	pt	20.78						0.25	21.03	21.03
Surfactant	pt	0.33							0.33	0.33
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.43	55.03	55.03
Dry Rice	bu	62.40						0.49	62.89	62.89
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre		27.86	11.46	9.53			0.87	49.72	66.25
TOTALS			515.17	41.99	28.57	34.21	0.00	10.68	630.62	125.80

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	84.78	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	38.25	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.50	3.74	2.61	0.33	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	3.38	0.00	0.00	0.00	0.00	0.00	6.73	3.18	4.08	4.08	8.88	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	8.55	7.33	7.33	7.33	5.53	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.10	7.37	1.46	1.46	9.06	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	2.47	4.18	1.09	0.67	1.11	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	106.41	215.79	69.16	56.87	141.58	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-106.41	-215.79	-69.16	-56.87	622.82	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-137.04	-352.83	-421.99	-478.86	143.96	133.78

Note: Cost of production estimates are based on 2017 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., Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-285 -410	-265 -391	-246 -372	-227 -353	-208 -334	-189 -315	-170 -296	-151 -277	-132 -257	-113 -238	-93 -219
60	93.60	bu	-239 -365	-216 -342	-193 -319	-170 -296	-147 -273	-124 -250	-101 -227	-78 -204	-56 -181	-33 -158	-10 -135
70	109.20	bu	-193 -319	-167 -292	-140 -266	-113 -239	-86 -212	-60 -185	-33 -159	-6 -132	20 -105	46 -78	73 -52
80	124.80	bu	-148 -274	-117 -243	-87 -213	-56 -182	-26 -151	4 -121	35 -90	65 -60	96 -29	126 0	157 31
90	140.40	bu	-102 -228	-68 -194	-34 -159	0 -125	34 -91	69 -56	103 -22	137 12	172 46	206 80	241 115
100	156.00	bu	-57 -183	-19 -144	19 -106	57 -68	95 -30	133 7	172 46	210 84	248 122	286 160	324 199
110	171.60	bu	-11 -137	30 -95	72 -53	114 -11	156 30	198 72	240 114	282 156	324 198	366 240	408 282
120	187.20	bu	33 -92	79 -46	125 -0	171 45	217 91	263 137	308 183	354 229	400 274	446 320	492 366
130	202.80	bu	79 -46	128 3	178 52	228 102	278 152	327 201	377 251	427 301	476 350	526 400	576 450
140	218.40	bu	124 -0	178 52	231 106	285 159	338 213	392 266	445 320	499 373	552 427	606 480	659 534
150	234.00	bu	170 44	227 101	285 159	342 216	399 273	457 331	514 388	571 445	629 503	686 560	743 617

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 2017 input prices.

Table 5.A Estimated costs per acre
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	61.26	0.5000	30.63	_____
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					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Clearfield	lb	0.95	65.0000	61.75	_____
Rice Seed Trt./Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF(Levees)	lb	0.95	12.0000	11.40	_____
ADJUVANTS					
Class Act NG	pt	2.38	0.5000	1.19	_____
MSO	pt	2.61	1.5000	3.92	_____
Crop Oil Conc. (Pet.)	pt	2.74	4.0000	10.96	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.5757	7.77	_____
Harvesters	hour	13.51	0.2030	2.74	_____
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	0.0926	0.84	_____
RICE MGT. LABOR					
Special Labor	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR					
	hour	13.50	0.5887	7.95	_____
DIESEL FUEL					
Tractors	gal	1.80	6.3153	11.38	_____
Harvesters	gal	1.80	3.3975	6.12	_____
Flood Irr.	gal	1.80	26.8827	48.40	_____
REPAIR & MAINTENANCE					
Implements	acre	8.60	1.0000	8.60	_____
Tractors	acre	3.56	1.0000	3.56	_____
Harvesters	acre	7.51	1.0000	7.51	_____
Flood Irr.	acre	13.79	1.0000	13.79	_____
INTEREST ON OP. CAP.	acre	12.99	1.0000	12.99	_____
TOTAL DIRECT EXPENSES				738.78	_____
FIXED EXPENSES					
Implements	acre	18.05	1.0000	18.05	_____
Tractors	acre	22.39	1.0000	22.39	_____
Harvesters	acre	29.63	1.0000	29.63	_____
Flood Irr.	acre	43.00	1.0000	43.00	_____
TOTAL FIXED EXPENSES				113.07	_____
TOTAL SPECIFIED EXPENSES				851.85	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	128.47	1.0000	128.47	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	90.86	1.0000	90.86	_____
ADJUVANTS	acre	16.40	1.0000	16.40	_____
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	0.3426	3.11	_____
IRRIGATE LABOR	hour	9.06	3.5250	31.96	_____
OPERATOR LABOR	hour	13.51	0.7788	10.51	_____
RICE MGT. LABOR	hour	9.06	1.5000	13.59	_____
UNALLOCATED LABOR	hour	13.50	0.5887	7.95	_____
DIESEL FUEL	gal	1.80	36.5955	65.90	_____
REPAIR & MAINTENANCE	acre	33.46	1.0000	33.46	_____
INTEREST ON OP. CAP.	acre	12.99	1.0000	12.99	_____

TOTAL DIRECT EXPENSES				738.78	_____
RETURNS ABOVE DIRECT EXPENSES				25.62	_____
TOTAL FIXED EXPENSES				113.07	_____

TOTAL SPECIFIED EXPENSES				851.85	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-87.45	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Delta Area, Mississippi, 2018

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
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
App by Air (5 gal)	appl					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				
Karate Z	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	156.0000				
Dry Rice	bu			1.00	Aug	156.0000				
Disk Heavy	28'	MFWD 225	0.075	2.00	Sep		0.15	0.15	0.15	0.13
Flood Irr.	acre				Jan	1.0000	0.12	0.12	3.64	
TOTALS							0.77	0.77	6.14	0.58

Note: Cost of production estimates are based on 2017 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
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Clearfield	lb	61.75						1.47	63.22	63.22
Rice Seed Trt/Insect	lbseed	14.95						0.36	15.31	15.31
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
Class Act NG	pt	1.19						0.03	1.22	1.22
MSO	pt	1.31						0.03	1.34	1.34
Seed Levees										
Rice Seed CF(Levees)	lb	11.40						0.27	11.67	11.67
Rice Seed Trt/Insect	lbseed	2.76						0.07	2.83	2.83
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Clearpath	lb	30.63						0.73	31.36	31.36
Crop Oil Conc.(Pet.)	pt	5.48						0.13	5.61	5.61
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	17.50						0.35	17.85	17.85
Urea, Solid (46% N)	cwt	35.48						0.70	36.18	36.18
NBPT	pt	6.75						0.13	6.88	6.88
App by Air (10 gal)	appl	9.00						0.18	9.18	9.18
Newpath	oz	22.98						0.45	23.43	23.43
Crop Oil Conc.(Pet.)	pt	5.48						0.11	5.59	5.59
Aim	oz	8.48						0.17	8.65	8.65
Rice Management										
RICE MGT. LABOR	hour				2.72			0.05	2.77	2.77
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				4.53			0.07	4.60	4.60
App Fert by Air	cwt	10.50						0.17	10.67	10.67
Urea, Solid (46% N)	cwt	21.29						0.34	21.63	21.63
Rice Management										
RICE MGT. LABOR	hour				4.53			0.05	4.58	4.58
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Stratego	pt	20.78						0.25	21.03	21.03
Surfactant	pt	0.33							0.33	0.33
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (CL)	25' Rigid		6.12	10.25	5.21			0.17	21.75	33.91
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.43	55.03	55.03
Dry Rice	bu	62.40						0.49	62.89	62.89
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	4.50	50.36	14.55	33.65			1.85	104.91	47.55
TOTALS		559.31	65.90	33.46	67.12	0.00	12.99	738.78	113.07	851.85

Note: Cost of production estimates are based on 2017 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
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.94	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	90.86	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.98	5.48	2.61	0.33	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	3.38	0.00	0.00	0.00	0.00	0.00	16.58	9.52	11.33	11.33	11.10	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	13.31	13.20	13.20	13.20	7.07	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	5.26	8.06	2.15	2.15	10.72	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	5.22	3.33	1.30	0.83	1.15	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	224.65	172.26	83.18	70.84	147.04	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-224.65	-172.26	-83.18	-70.84	617.36	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-255.28	-427.54	-510.72	-581.56	35.80	25.62

Note: Cost of production estimates are based on 2017 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
 Clearfield contour levee rice
 Flood irrigated, 33 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-393 -506	-374 -487	-354 -468	-335 -448	-316 -429	-297 -410	-278 -391	-259 -372	-240 -353	-221 -334	-202 -315
60	93.60	bu	-347 -460	-324 -437	-301 -414	-278 -391	-255 -368	-232 -346	-210 -323	-187 -300	-164 -277	-141 -254	-118 -231
70	109.20	bu	-302 -415	-275 -388	-248 -361	-221 -334	-195 -308	-168 -281	-141 -254	-114 -227	-88 -201	-61 -174	-34 -147
80	124.80	bu	-256 -369	-225 -339	-195 -308	-164 -277	-134 -247	-103 -216	-73 -186	-42 -155	-11 -125	18 -94	49 -63
90	140.40	bu	-211 -324	-176 -289	-142 -255	-107 -220	-73 -186	-39 -152	-4 -117	29 -83	64 -48	98 -14	132 19
100	156.00	bu	-165 -278	-127 -240	-89 -202	-50 -163	-12 -125	25 -87	63 -49	102 -11	140 27	178 65	216 103
110	171.60	bu	-119 -233	-77 -190	-35 -148	6 -106	48 -64	90 -22	132 19	174 61	216 103	258 145	300 187
120	187.20	bu	-74 -187	-28 -141	17 -95	63 -49	109 -4	154 41	200 87	246 133	292 179	338 225	384 271
130	202.80	bu	-28 -141	20 -92	70 -42	120 7	169 56	219 106	269 156	318 205	368 255	418 305	467 354
140	218.40	bu	16 -96	70 -42	123 10	177 64	230 117	284 171	337 224	391 278	444 331	498 385	551 438
150	234.00	bu	62 -50	119 6	176 63	234 121	291 178	348 235	406 293	463 350	520 407	578 465	635 522

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 2017 input prices.

Table 6.A Estimated costs per acre
Clearfield straight levee rice
Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	61.26	0.5000	30.63	_____
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					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Clearfield	lb	0.95	65.0000	61.75	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF(Levees)	lb	0.95	12.0000	11.40	_____
ADJUVANTS					
MSO	pt	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.74	4.0000	10.96	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.5281	7.12	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	0.0926	0.84	_____
RICE MGT. LABOR					
Special Labor	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR					
hour	hour	13.50	0.5643	7.62	_____
DIESEL FUEL					
Tractors	gal	1.80	5.8986	10.64	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	21.9949	39.58	_____
REPAIR & MAINTENANCE					
Implements	acre	8.17	1.0000	8.17	_____
Tractors	acre	3.33	1.0000	3.33	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	12.47	1.0000	12.47	_____
TOTAL DIRECT EXPENSES				704.93	_____
FIXED EXPENSES					
Implements	acre	17.12	1.0000	17.12	_____
Tractors	acre	20.96	1.0000	20.96	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.91	1.0000	66.91	_____
TOTAL FIXED EXPENSES				130.67	_____
TOTAL SPECIFIED EXPENSES				835.60	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	128.47	1.0000	128.47	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	90.86	1.0000	90.86	_____
ADJUVANTS	acre	16.40	1.0000	16.40	_____
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	0.3426	3.11	_____
IRRIGATE LABOR	hour	9.06	2.3750	21.52	_____
OPERATOR LABOR	hour	13.51	0.7041	9.50	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5643	7.62	_____
DIESEL FUEL	gal	1.80	30.8381	55.52	_____
REPAIR & MAINTENANCE	acre	31.79	1.0000	31.79	_____
INTEREST ON OP. CAP.	acre	12.47	1.0000	12.47	_____

TOTAL DIRECT EXPENSES				704.93	_____
RETURNS ABOVE DIRECT EXPENSES				59.47	_____
TOTAL FIXED EXPENSES				130.67	_____

TOTAL SPECIFIED EXPENSES				835.60	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-71.20	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
App by Air (5 gal)	appl					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				
Karate Z	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							0.70	0.70	4.12	0.56

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49		3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66	13.79
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99	4.41
App by Air (5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93		6.93
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80	13.71
Rice Clearfield	lb	61.75						1.47	63.22		63.22
Rice Seed Trt/Insect	lbseed	14.95						0.36	15.31		15.31
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37	5.31
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
App by Air (5 gal)	appl	6.50						0.15	6.65		6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Command 3ME	pt	19.93						0.47	20.40		20.40
Sharpen	oz	12.90						0.31	13.21		13.21
MSO	pt	1.31						0.03	1.34		1.34
Class Act NG	pt	1.19						0.03	1.22		1.22
Seed Levees											
Rice Seed CF(Levees)	lb	11.40						0.27	11.67		11.67
Rice Seed Trt/Insect	lbseed	2.76						0.07	2.83		2.83
App by Air (5 gal)	appl	6.50						0.15	6.65		6.65
Clearpath	lb	30.63						0.73	31.36		31.36
Crop Oil Conc.(Pet.)	pt	5.48						0.13	5.61		5.61
App Fert by Air	cwt	7.00						0.14	7.14		7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85		6.85
DAP	cwt	10.76						0.21	10.97		10.97
Rice Consultant	acre	8.00						0.16	8.16		8.16
App Fert by Air	cwt	17.50						0.35	17.85		17.85
Urea, Solid (46% N)	cwt	35.48						0.70	36.18		36.18
NBPT	pt	6.75						0.13	6.88		6.88
App by Air (10 gal)	appl	9.00						0.18	9.18		9.18
Newpath	oz	22.98						0.45	23.43		23.43
Crop Oil Conc.(Pet.)	pt	5.48						0.11	5.59		5.59
Aim	oz	8.48						0.17	8.65		8.65
Rice Management											
RICE MGT. LABOR	hour				0.91			0.02	0.93		0.93
App by Air (5 gal)	appl	3.25						0.05	3.30		3.30
Clincher SF	oz	17.55						0.28	17.83		17.83
MSO	pt	2.61						0.04	2.65		2.65
Rice Management											
RICE MGT. LABOR	hour				1.81			0.03	1.84		1.84
App Fert by Air	cwt	10.50						0.17	10.67		10.67
Urea, Solid (46% N)	cwt	21.29						0.34	21.63		21.63
Rice Management											
RICE MGT. LABOR	hour				1.81			0.02	1.83		1.83
App by Air (5 gal)	appl	6.50						0.08	6.58		6.58
Stratego	pt	20.78						0.25	21.03		21.03
Surfactant	pt	0.33							0.33		0.33
App by Air (3 gal)	appl	7.50						0.09	7.59		7.59
Karate Z	oz	8.22						0.10	8.32		8.32
Rice Management											
RICE MGT. LABOR	hour				1.81			0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39	48.24
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64	1.34
Handling & Storage											
HAND LABOR	hour				2.27			0.02	2.29		2.29
Haul Rice	bu	54.60						0.43	55.03		55.03
Dry Rice	bu	62.40						0.49	62.89		62.89
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70	20.88
Flood Irr.	acre	2.25	40.80	14.25	22.56			1.45	81.31	69.67	150.98
TOTALS			557.06	55.52	31.79	48.09	0.00	12.47	704.93	130.67	835.60

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.94	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	90.86	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.98	5.48	2.61	0.33	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	3.38	0.00	0.00	0.00	0.00	0.00	12.58	5.44	6.34	6.34	10.13	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	12.90	10.26	10.26	10.26	5.92	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	5.42	7.95	2.04	2.04	9.22	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	5.07	3.20	1.17	0.74	1.13	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	218.00	165.00	75.01	62.71	143.40	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-218.00	-165.00	-75.01	-62.71	621.00	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-248.63	-413.63	-488.64	-551.35	69.65	59.47

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-359 -489	-340 -470	-321 -451	-301 -432	-282 -413	-263 -394	-244 -375	-225 -356	-206 -337	-187 -318	-168 -298
60	93.60	bu	-313 -444	-290 -421	-267 -398	-244 -375	-222 -352	-199 -329	-176 -306	-153 -283	-130 -260	-107 -238	-84 -215
70	109.20	bu	-268 -398	-241 -372	-214 -345	-187 -318	-161 -291	-134 -265	-107 -238	-80 -211	-54 -184	-27 -158	-0 -131
80	124.80	bu	-222 -353	-192 -322	-161 -292	-130 -261	-100 -231	-69 -200	-39 -169	-8 -139	21 -108	52 -78	83 -47
90	140.40	bu	-177 -307	-142 -273	-108 -239	-73 -204	-39 -170	-5 -135	29 -101	63 -67	98 -32	132 1	166 36
100	156.00	bu	-131 -262	-93 -224	-55 -185	-16 -147	21 -109	59 -71	97 -32	135 5	174 43	212 81	250 119
110	171.60	bu	-86 -216	-44 -174	-2 -132	40 -90	82 -48	124 -6	166 35	208 77	250 119	292 161	334 203
120	187.20	bu	-40 -171	5 -125	51 -79	97 -33	142 12	188 58	234 103	280 149	326 195	372 241	418 287
130	202.80	bu	4 -125	54 -76	104 -26	154 23	203 73	253 122	303 172	352 222	402 271	452 321	501 371
140	218.40	bu	50 -80	104 -26	157 26	211 80	264 133	318 187	371 240	425 294	478 347	532 401	585 454
150	234.00	bu	96 -34	153 22	210 80	268 137	325 194	382 252	440 309	497 366	554 424	612 481	669 538

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 2017 input prices.

Table 7.A Estimated costs per acre
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	61.26	0.5000	30.63	_____
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					
Karate Z	oz	2.74	3.0000	8.22	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Clearfield	lb	0.95	65.0000	61.75	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF (Levees)	lb	0.95	12.0000	11.40	_____
ADJUVANTS					
MSO	pt	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.74	4.0000	10.96	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.5281	7.12	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	5.8180	10.50	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	18.7364	33.73	_____
REPAIR & MAINTENANCE					
Implements	acre	7.99	1.0000	7.99	_____
Tractors	acre	3.27	1.0000	3.27	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	12.35	1.0000	12.35	_____
TOTAL DIRECT EXPENSES				695.04	_____
FIXED EXPENSES					
Implements	acre	17.29	1.0000	17.29	_____
Tractors	acre	20.64	1.0000	20.64	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.58	1.0000	66.58	_____
TOTAL FIXED EXPENSES				130.19	_____
TOTAL SPECIFIED EXPENSES				825.23	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	128.47	1.0000	128.47	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	90.86	1.0000	90.86	_____
ADJUVANTS	acre	16.40	1.0000	16.40	_____
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	13.51	0.7041	9.50	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	27.4990	49.53	_____
REPAIR & MAINTENANCE	acre	31.23	1.0000	31.23	_____
INTEREST ON OP. CAP.	acre	12.35	1.0000	12.35	_____

TOTAL DIRECT EXPENSES				695.04	_____
RETURNS ABOVE DIRECT EXPENSES				69.36	_____
TOTAL FIXED EXPENSES				130.19	_____

TOTAL SPECIFIED EXPENSES				825.23	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-60.83	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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				
Karate Z	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 2017 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
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	4.41
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.71
2,4-D Amine 4	pt	4.80						0.15	4.95	6.93
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	4.95
Rice Clearfield	lb	61.75						1.47	63.22	13.71
Rice Seed Trt/Insect	lbseed	14.95						0.36	15.31	63.22
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	15.31
App by Air (5 gal)	appl	6.50						0.15	6.65	5.31
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	6.65
Command 3ME	pt	19.93						0.47	20.40	4.59
Sharpen	oz	12.90						0.31	13.21	20.40
MSO	pt	1.31						0.03	1.34	13.21
Class Act NG	pt	1.19						0.03	1.22	1.34
Seed Levees										1.22
Rice Seed CF (Levees)	lb	11.40						0.27	11.67	
Rice Seed Trt/Insect	lbseed	2.76						0.07	2.83	11.67
App by Air (5 gal)	appl	6.50						0.15	6.65	2.83
Clearpath	lb	30.63						0.73	31.36	6.65
Crop Oil Conc. (Pet.)	pt	5.48						0.13	5.61	31.36
App Fert by Air	cwt	7.00						0.14	7.14	5.61
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	7.14
DAP	cwt	10.76						0.21	10.97	6.85
Rice Consultant	acre	8.00						0.16	8.16	10.97
App Fert by Air	cwt	17.50						0.35	17.85	8.16
Urea, Solid (46% N)	cwt	35.48						0.70	36.18	17.85
NBPT	pt	6.75						0.13	6.88	36.18
App by Air (10 gal)	appl	9.00						0.18	9.18	6.88
Newpath	oz	22.98						0.45	23.43	9.18
Crop Oil Conc. (Pet.)	pt	5.48						0.11	5.59	23.43
Aim	oz	8.48						0.17	8.65	5.59
Rice Management										8.65
RICE MGT. LABOR	hour				0.91			0.02	0.93	
App by Air (5 gal)	appl	3.25						0.05	3.30	0.93
Clincher SF	oz	17.55						0.28	17.83	3.30
MSO	pt	2.61						0.04	2.65	17.83
Rice Management										2.65
RICE MGT. LABOR	hour				1.81			0.03	1.84	
App Fert by Air	cwt	10.50						0.17	10.67	1.84
Urea, Solid (46% N)	cwt	21.29						0.34	21.63	10.67
Rice Management										21.63
RICE MGT. LABOR	hour				1.81			0.02	1.83	
App by Air (5 gal)	appl	6.50						0.08	6.58	1.83
Stratego	pt	20.78						0.25	21.03	6.58
Surfactant	pt	0.33							0.33	21.03
App by Air (3 gal)	appl	7.50						0.09	7.59	0.33
Karate Z	oz	8.22						0.10	8.32	7.59
Rice Management										8.32
RICE MGT. LABOR	hour				1.81			0.01	1.82	
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	1.82
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	29.39
Handling & Storage										0.64
HAND LABOR	hour				2.27			0.02	2.29	1.34
Haul Rice	bu	54.60						0.43	55.03	
Dry Rice	bu	62.40						0.49	62.89	55.03
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	62.89
Flood Irr.	acre	10.50	35.40	14.12	11.94			1.37	73.33	10.70
TOTALS		565.31	49.53	31.23	36.62	0.00	12.35	695.04	130.19	825.23

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.94	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	8.22	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	90.86	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.98	5.48	2.61	0.33	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	3.38	0.00	0.00	0.00	0.00	0.00	9.54	2.72	3.62	3.62	9.86	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	11.19	8.80	8.80	8.80	6.02	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	5.03	7.88	1.97	1.97	9.26	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	5.15	3.12	1.11	0.69	1.12	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	221.19	160.67	70.70	58.41	143.26	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-221.19	-160.67	-70.70	-58.41	621.14	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-251.82	-412.49	-483.19	-541.60	79.54	69.36

Note: Cost of production estimates are based on 2017 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
Clearfield straight levee multi inlet rice
Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-349 -479	-330 -460	-311 -441	-292 -422	-272 -403	-253 -384	-234 -364	-215 -345	-196 -326	-177 -307	-158 -288
60	93.60	bu	-303 -434	-280 -411	-258 -388	-235 -365	-212 -342	-189 -319	-166 -296	-143 -273	-120 -250	-97 -227	-74 -204
70	109.20	bu	-258 -388	-231 -361	-204 -335	-178 -308	-151 -281	-124 -254	-97 -228	-71 -201	-44 -174	-17 -147	9 -121
80	124.80	bu	-212 -343	-182 -312	-151 -281	-121 -251	-90 -220	-59 -190	-29 -159	1 -128	31 -98	62 -67	92 -37
90	140.40	bu	-167 -297	-132 -263	-98 -228	-64 -194	-29 -159	4 -125	39 -91	73 -56	107 -22	142 12	176 46
100	156.00	bu	-121 -251	-83 -213	-45 -175	-7 -137	31 -99	69 -60	107 -22	145 15	184 53	222 92	260 130
110	171.60	bu	-76 -206	-34 -164	7 -122	49 -80	91 -38	134 3	176 45	218 87	260 129	302 171	344 214
120	187.20	bu	-30 -160	15 -114	61 -69	106 -23	152 22	198 68	244 114	290 160	336 206	382 251	427 297
130	202.80	bu	14 -115	64 -65	114 -15	163 33	213 83	263 133	312 182	362 232	412 282	462 331	511 381
140	218.40	bu	60 -69	113 -16	167 37	220 90	274 144	327 197	381 251	434 304	488 358	541 411	595 465
150	234.00	bu	105 -24	163 33	220 90	277 147	335 205	392 262	449 319	507 377	564 434	621 491	679 549

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 2017 input prices.

Table 8.A Estimated costs per acre
Clearfield straight levee-zero grade rice
Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	4.0000	56.76	_____
NBPT	pt	9.00	0.7500	6.75	_____
FUNGICIDES					
Stratego	pt	17.50	1.1875	20.78	_____
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	61.26	0.5000	30.63	_____
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					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Clearfield	lb	0.95	65.0000	61.75	_____
Rice Seed Trt/Insect	lbseed	0.23	77.0000	17.71	_____
Rice Seed CF(Levees)	lb	0.95	12.0000	11.40	_____
ADJUVANTS					
MSO	pt	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.74	4.0000	10.96	_____
Surfactant	pt	3.28	0.1000	0.33	_____
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	13.51	0.4228	5.70	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	4.8970	8.83	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	15.4779	27.86	_____
REPAIR & MAINTENANCE					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	2.77	1.0000	2.77	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.	acre	11.85	1.0000	11.85	_____
TOTAL DIRECT EXPENSES				671.43	_____
FIXED EXPENSES					
Implements	acre	16.40	1.0000	16.40	_____
Tractors	acre	17.47	1.0000	17.47	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.25	1.0000	66.25	_____
TOTAL FIXED EXPENSES				125.80	_____
TOTAL SPECIFIED EXPENSES				797.23	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	156.0000	764.40	_____

TOTAL INCOME				764.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	45.75	1.0000	45.75	_____
FERTILIZERS	acre	81.00	1.0000	81.00	_____
FUNGICIDES	acre	20.78	1.0000	20.78	_____
HERBICIDES	acre	128.47	1.0000	128.47	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	90.86	1.0000	90.86	_____
ADJUVANTS	acre	16.40	1.0000	16.40	_____
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	13.51	0.5988	8.08	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	23.3194	41.99	_____
REPAIR & MAINTENANCE	acre	28.57	1.0000	28.57	_____
INTEREST ON OP. CAP.	acre	11.85	1.0000	11.85	_____

TOTAL DIRECT EXPENSES				671.43	_____
RETURNS ABOVE DIRECT EXPENSES				92.97	_____
TOTAL FIXED EXPENSES				125.80	_____

TOTAL SPECIFIED EXPENSES				797.23	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-32.83	_____

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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				
Karate Z	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 2017 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
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Clearfield	lb	61.75						1.47	63.22	63.22
Rice Seed Trt/Insect	lbseed	14.95						0.36	15.31	15.31
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
MSO	pt	1.31						0.03	1.34	1.34
Class Act NG	pt	1.19						0.03	1.22	1.22
Seed Levees										
Rice Seed CF (Levees)	lb	11.40						0.27	11.67	11.67
Rice Seed Trt/Insect	lbseed	2.76						0.07	2.83	2.83
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Clearpath	lb	30.63						0.73	31.36	31.36
Crop Oil Conc. (Pet.)	pt	5.48						0.13	5.61	5.61
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	17.50						0.35	17.85	17.85
Urea, Solid (46% N)	cwt	35.48						0.70	36.18	36.18
NBPT	pt	6.75						0.13	6.88	6.88
App by Air (10 gal)	appl	9.00						0.18	9.18	9.18
Newpath	oz	22.98						0.45	23.43	23.43
Crop Oil Conc. (Pet.)	pt	5.48						0.11	5.59	5.59
Aim	oz	8.48						0.17	8.65	8.65
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	10.50						0.17	10.67	10.67
Urea, Solid (46% N)	cwt	21.29						0.34	21.63	21.63
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Stratego	pt	20.78						0.25	21.03	21.03
Surfactant	pt	0.33							0.33	0.33
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	54.60						0.43	55.03	55.03
Dry Rice	bu	62.40						0.49	62.89	62.89
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre		27.86	11.46	9.53			0.87	49.72	66.25
TOTALS		554.81	41.99	28.57	34.21	0.00	11.85	671.43	125.80	797.23

Note: Cost of production estimates are based on 2017 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
 Clearfield straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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	764.40	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	59.71	21.29	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	20.78	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.94	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	90.86	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.98	5.48	2.61	0.33	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	3.38	0.00	0.00	0.00	0.00	0.00	6.73	3.18	4.08	4.08	8.88	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	8.55	7.33	7.33	7.33	5.53	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.10	7.37	1.46	1.46	9.06	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	4.74	3.08	1.09	0.67	1.11	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	203.90	159.11	69.16	56.87	141.58	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-203.90	-159.11	-69.16	-56.87	622.82	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-234.53	-393.64	-462.80	-519.67	103.15	92.97

Note: Cost of production estimates are based on 2017 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
Clearfield straight levee-zero grade rice
Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	78.00	bu	-325 -451	-306 -432	-287 -413	-268 -394	-249 -375	-230 -356	-211 -336	-192 -317	-172 -298	-153 -279	-134 -260
60	93.60	bu	-280 -406	-257 -383	-234 -360	-211 -337	-188 -314	-165 -291	-142 -268	-119 -245	-96 -222	-73 -199	-50 -176
70	109.20	bu	-234 -360	-207 -333	-181 -307	-154 -280	-127 -253	-100 -226	-74 -200	-47 -173	-20 -146	6 -119	32 -93
80	124.80	bu	-189 -315	-158 -284	-128 -253	-97 -223	-66 -192	-36 -162	-5 -131	24 -100	55 -70	85 -39	116 -9
90	140.40	bu	-143 -269	-109 -235	-74 -200	-40 -166	-6 -131	28 -97	62 -63	97 -28	131 5	165 40	200 74
100	156.00	bu	-98 -223	-59 -185	-21 -147	16 -109	54 -71	92 -32	131 5	169 43	207 81	245 120	284 158
110	171.60	bu	-52 -178	-10 -136	31 -94	73 -52	115 -10	157 31	199 73	241 115	283 157	325 199	367 242
120	187.20	bu	-7 -132	38 -86	84 -41	130 4	176 50	222 96	268 142	313 188	359 234	405 279	451 325
130	202.80	bu	38 -87	88 -37	137 12	187 61	237 111	286 161	336 210	386 260	435 310	485 359	535 409
140	218.40	bu	84 -41	137 11	191 65	244 118	298 172	351 225	405 279	458 332	512 386	565 439	619 493
150	234.00	bu	129 3	186 61	244 118	301 175	358 233	416 290	473 347	530 405	588 462	645 519	702 577

The top number in each cell is Returns Above Direct Expenses.
The bottom number in each cell is Returns Above Total Specified Expenses.
Only the product listed has been varied to calculate net returns.
Note: Cost of production estimates are based on 2017 input prices.

Table 9.A Estimated costs per acre
 Clearfield hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	3.3220	47.14	_____
NBPT	pt	9.00	0.8000	7.20	_____
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	61.26	0.5000	30.63	_____
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					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Clrflld Hyb Trt	lb	5.55	23.0000	127.65	_____
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	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc.(Pet.)	pt	2.74	4.0000	10.96	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
HAULING					
Haul Rice	bu	0.35	170.0000	59.50	_____
DRYING					
Dry Rice	bu	0.40	170.0000	68.00	_____
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	13.51	0.4999	6.74	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	5.5719	10.05	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	21.9949	39.58	_____
REPAIR & MAINTENANCE					
Implements	acre	7.93	1.0000	7.93	_____
Tractors	acre	3.14	1.0000	3.14	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	13.04	1.0000	13.04	_____
TOTAL DIRECT EXPENSES				717.93	_____
FIXED EXPENSES					
Implements	acre	16.84	1.0000	16.84	_____
Tractors	acre	19.79	1.0000	19.79	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.91	1.0000	66.91	_____
TOTAL FIXED EXPENSES				129.22	_____
TOTAL SPECIFIED EXPENSES				847.15	_____

Note: Cost of production estimates are based on 2017 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 hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	170.0000	833.00	_____

TOTAL INCOME				833.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.25	1.0000	39.25	_____
FERTILIZERS	acre	71.82	1.0000	71.82	_____
HERBICIDES	acre	128.47	1.0000	128.47	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	136.20	1.0000	136.20	_____
ADJUVANTS	acre	16.07	1.0000	16.07	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
HAULING	acre	59.50	1.0000	59.50	_____
DRYING	acre	68.00	1.0000	68.00	_____
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	13.51	0.6759	9.12	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	30.5114	54.93	_____
REPAIR & MAINTENANCE	acre	31.36	1.0000	31.36	_____
INTEREST ON OP. CAP.	acre	13.04	1.0000	13.04	_____

TOTAL DIRECT EXPENSES				717.93	_____
RETURNS ABOVE DIRECT EXPENSES				115.07	_____
TOTAL FIXED EXPENSES				129.22	_____

TOTAL SPECIFIED EXPENSES				847.15	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-14.15	_____

Note: Cost of production estimates are based on 2017 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 hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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				
Karate Z	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	170.0000				
Dry Rice	bu			1.00	Aug	170.0000				
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 2017 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 hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Clrfld Hyb Trt	lb	127.65						3.03	130.68	130.68
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
MSO	pt	1.31						0.03	1.34	1.34
Class Act NG	pt	1.19						0.03	1.22	1.22
Seed Levees										
Rice Seed CFH (Levee)	lb	7.57						0.18	7.75	7.75
Rice Seed Trt/Insect	lbseed	0.98						0.02	1.00	1.00
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Clearpath	lb	30.63						0.73	31.36	31.36
Crop Oil Conc. (Pet.)	pt	5.48						0.13	5.61	5.61
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	18.69						0.37	19.06	19.06
Urea, Solid (46% N)	cwt	37.89						0.75	38.64	38.64
NBPT	pt	7.20						0.14	7.34	7.34
App by Air (10 gal)	appl	9.00						0.18	9.18	9.18
Newpath	oz	22.98						0.45	23.43	23.43
Crop Oil Conc. (Pet.)	pt	5.48						0.11	5.59	5.59
Aim	oz	8.48						0.17	8.65	8.65
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	4.56						0.07	4.63	4.63
Urea, Solid (46% N)	cwt	9.25						0.15	9.40	9.40
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	59.50						0.47	59.97	59.97
Dry Rice	bu	68.00						0.54	68.54	68.54
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	2.25	40.80	14.25	22.56			1.45	81.31	69.67
TOTALS		571.36	54.93	31.36	47.24	0.00	13.04	717.93	129.22	847.15

Note: Cost of production estimates are based on 2017 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 hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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	833.00	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	62.57	9.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.94	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	136.20	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.98	5.48	2.61	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	59.50	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.00	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	3.38	0.00	0.00	0.00	0.00	0.00	11.73	5.44	6.34	6.34	10.13	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	12.31	10.26	10.26	10.26	5.92	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.99	7.95	2.04	2.04	9.22	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	6.09	3.28	0.88	0.41	1.22	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	262.49	169.13	56.74	34.77	153.99	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-262.49	-169.13	-56.74	-34.77	679.01	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-293.12	-462.25	-518.99	-553.76	125.25	115.07

Note: Cost of production estimates are based on 2017 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 hybrid straight levee rice
Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-341 -470	-320 -449	-299 -428	-278 -408	-258 -387	-237 -366	-216 -345	-195 -324	-174 -303	-153 -283	-133 -262
60	102.00	bu	-291 -420	-266 -395	-241 -370	-216 -345	-191 -320	-166 -295	-141 -270	-116 -245	-91 -220	-66 -195	-41 -170
70	119.00	bu	-242 -371	-212 -342	-183 -312	-154 -283	-125 -254	-96 -225	-67 -196	-37 -167	-8 -138	20 -108	49 -79
80	136.00	bu	-192 -321	-159 -288	-125 -255	-92 -221	-59 -188	-25 -155	7 -121	40 -88	74 -55	107 -21	140 11
90	153.00	bu	-142 -272	-105 -234	-67 -197	-30 -159	7 -122	44 -84	82 -47	119 -9	157 27	194 65	232 102
100	170.00	bu	-93 -222	-51 -180	-9 -139	31 -97	73 -55	115 -14	156 27	198 69	240 110	281 152	323 194
110	187.00	bu	-43 -172	2 -126	48 -81	93 -35	139 10	185 56	231 102	277 147	322 193	368 239	414 285
120	204.00	bu	6 -123	56 -73	106 -23	156 26	205 76	255 126	305 176	355 226	405 276	455 326	505 376
130	221.00	bu	55 -73	109 -19	163 34	218 88	272 143	326 197	380 251	434 305	488 359	542 413	597 467
140	238.00	bu	105 -23	163 34	221 92	280 151	338 209	396 267	455 325	513 384	571 442	630 500	688 559
150	255.00	bu	154 25	217 88	279 150	342 213	404 275	467 338	529 400	592 463	654 525	717 587	779 650

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 2017 input prices.

Table 10.A Estimated costs per acre
 Clearfield hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	3.3220	47.14	_____
NBPT	pt	9.00	0.8000	7.20	_____
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	61.26	0.5000	30.63	_____
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					
Karate Z	oz	2.74	3.0000	8.22	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Clrflld Hyb Trt	lb	5.55	23.0000	127.65	_____
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	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.74	4.0000	10.96	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
HAULING					
Haul Rice	bu	0.35	170.0000	59.50	_____
DRYING					
Dry Rice	bu	0.40	170.0000	68.00	_____
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	13.51	0.5281	7.12	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	5.8180	10.50	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	18.7364	33.73	_____
REPAIR & MAINTENANCE					
Implements	acre	7.99	1.0000	7.99	_____
Tractors	acre	3.27	1.0000	3.27	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	12.96	1.0000	12.96	_____
TOTAL DIRECT EXPENSES				709.95	_____
FIXED EXPENSES					
Implements	acre	17.29	1.0000	17.29	_____
Tractors	acre	20.64	1.0000	20.64	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.58	1.0000	66.58	_____
TOTAL FIXED EXPENSES				130.19	_____
TOTAL SPECIFIED EXPENSES				840.14	_____

Note: Cost of production estimates are based on 2017 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 hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	170.0000	833.00	_____

TOTAL INCOME				833.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.25	1.0000	39.25	_____
FERTILIZERS	acre	71.82	1.0000	71.82	_____
HERBICIDES	acre	128.47	1.0000	128.47	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	136.20	1.0000	136.20	_____
ADJUVANTS	acre	16.07	1.0000	16.07	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
HAULING	acre	59.50	1.0000	59.50	_____
DRYING	acre	68.00	1.0000	68.00	_____
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	13.51	0.7041	9.50	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	27.4990	49.53	_____
REPAIR & MAINTENANCE	acre	31.23	1.0000	31.23	_____
INTEREST ON OP. CAP.	acre	12.96	1.0000	12.96	_____

TOTAL DIRECT EXPENSES				709.95	_____
RETURNS ABOVE DIRECT EXPENSES				123.05	_____
TOTAL FIXED EXPENSES				130.19	_____

TOTAL SPECIFIED EXPENSES				840.14	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-7.14	_____

Note: Cost of production estimates are based on 2017 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 hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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				
Karate Z	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	170.0000				
Dry Rice	bu			1.00	Aug	170.0000				
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 2017 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 hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Clrfld Hyb Trt	lb	127.65						3.03	130.68	130.68
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
MSO	pt	1.31						0.03	1.34	1.34
Class Act NG	pt	1.19						0.03	1.22	1.22
Seed Levees										
Rice Seed CFH(Levee)	lb	7.57						0.18	7.75	7.75
Rice Seed Trt/Insect	lbseed	0.98						0.02	1.00	1.00
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Clearpath	lb	30.63						0.73	31.36	31.36
Crop Oil Conc.(Pet.)	pt	5.48						0.13	5.61	5.61
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	18.69						0.37	19.06	19.06
Urea, Solid (46% N)	cwt	37.89						0.75	38.64	38.64
NBPT	pt	7.20						0.14	7.34	7.34
App by Air (10 gal)	appl	9.00						0.18	9.18	9.18
Newpath	oz	22.98						0.45	23.43	23.43
Crop Oil Conc.(Pet.)	pt	5.48						0.11	5.59	5.59
Aim	oz	8.48						0.17	8.65	8.65
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	4.56						0.07	4.63	4.63
Urea, Solid (46% N)	cwt	9.25						0.15	9.40	9.40
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	59.50						0.47	59.97	59.97
Dry Rice	bu	68.00						0.54	68.54	68.54
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	10.50	35.40	14.12	11.94			1.37	73.33	70.64
TOTALS		579.61	49.53	31.23	36.62	0.00	12.96	709.95	130.19	840.14

Note: Cost of production estimates are based on 2017 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 hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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	833.00	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	62.57	9.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.94	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	8.22	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	136.20	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.98	5.48	2.61	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	59.50	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.00	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	3.38	0.00	0.00	0.00	0.00	0.00	9.54	2.72	3.62	3.62	9.86	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	11.19	8.80	8.80	8.80	6.02	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	5.03	7.88	1.97	1.97	9.26	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	6.21	3.20	0.82	0.36	1.21	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	267.59	164.80	52.43	30.47	153.85	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-267.59	-164.80	-52.43	-30.47	679.15	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-298.22	-463.02	-515.45	-545.92	133.23	123.05

Note: Cost of production estimates are based on 2017 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 hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-333 -463	-312 -442	-291 -421	-270 -401	-250 -380	-229 -359	-208 -338	-187 -317	-166 -296	-145 -276	-125 -255
60	102.00	bu	-283 -413	-258 -388	-233 -363	-208 -338	-183 -313	-158 -288	-133 -263	-108 -238	-83 -213	-58 -188	-33 -163
70	119.00	bu	-234 -364	-204 -335	-175 -305	-146 -276	-117 -247	-88 -218	-59 -189	-29 -160	-0 -131	28 -101	57 -72
80	136.00	bu	-184 -314	-151 -281	-117 -247	-84 -214	-51 -181	-17 -148	15 -114	48 -81	82 -48	115 -14	148 18
90	153.00	bu	-134 -265	-97 -227	-59 -190	-22 -152	15 -115	52 -77	90 -40	127 -2	165 34	202 72	240 109
100	170.00	bu	-85 -215	-43 -173	-1 -132	39 -90	81 -48	123 -7	164 34	206 76	248 117	289 159	331 201
110	187.00	bu	-35 -165	10 -119	56 -74	101 -28	147 17	193 63	239 109	285 154	330 200	376 246	422 292
120	204.00	bu	14 -116	64 -66	114 -16	163 33	213 83	263 133	313 183	363 233	413 283	463 333	513 383
130	221.00	bu	63 -66	117 -12	171 41	226 95	280 150	334 204	388 258	442 312	496 366	550 420	605 474
140	238.00	bu	113 -16	171 41	229 99	288 158	346 216	404 274	463 332	521 391	579 449	638 507	696 566
150	255.00	bu	162 32	225 95	287 157	350 220	412 282	475 345	537 407	600 470	662 532	725 595	787 657

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 2017 input prices.

Table 11.A Estimated costs per acre
 Clearfield hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	3.3220	47.14	_____
NBPT	pt	9.00	0.8000	7.20	_____
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	61.26	0.5000	30.63	_____
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					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Clrflld Hyb Trt	lb	5.55	23.0000	127.65	_____
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	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Crop Oil Conc. (Pet.)	pt	2.74	4.0000	10.96	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
HAULING					
Haul Rice	bu	0.35	170.0000	59.50	_____
DRYING					
Dry Rice	bu	0.40	170.0000	68.00	_____
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	13.51	0.4228	5.70	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	4.8970	8.83	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	15.4779	27.86	_____
REPAIR & MAINTENANCE					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	2.77	1.0000	2.77	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.	acre	12.46	1.0000	12.46	_____
TOTAL DIRECT EXPENSES				686.34	_____
FIXED EXPENSES					
Implements	acre	16.40	1.0000	16.40	_____
Tractors	acre	17.47	1.0000	17.47	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.25	1.0000	66.25	_____
TOTAL FIXED EXPENSES				125.80	_____
TOTAL SPECIFIED EXPENSES				812.14	_____

Note: Cost of production estimates are based on 2017 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 hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	170.0000	833.00	_____

TOTAL INCOME				833.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	39.25	1.0000	39.25	_____
FERTILIZERS	acre	71.82	1.0000	71.82	_____
HERBICIDES	acre	128.47	1.0000	128.47	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	136.20	1.0000	136.20	_____
ADJUVANTS	acre	16.07	1.0000	16.07	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
HAULING	acre	59.50	1.0000	59.50	_____
DRYING	acre	68.00	1.0000	68.00	_____
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	13.51	0.5988	8.08	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	23.3194	41.99	_____
REPAIR & MAINTENANCE	acre	28.57	1.0000	28.57	_____
INTEREST ON OP. CAP.	acre	12.46	1.0000	12.46	_____

TOTAL DIRECT EXPENSES				686.34	_____
RETURNS ABOVE DIRECT EXPENSES				146.66	_____
TOTAL FIXED EXPENSES				125.80	_____

TOTAL SPECIFIED EXPENSES				812.14	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				20.86	_____

Note: Cost of production estimates are based on 2017 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 hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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				
Karate Z	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	170.0000				
Dry Rice	bu			1.00	Aug	170.0000				
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 2017 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 hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Clrfld Hyb Trt	lb	127.65						3.03	130.68	130.68
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
MSO	pt	1.31						0.03	1.34	1.34
Class Act NG	pt	1.19						0.03	1.22	1.22
Seed Levees										
Rice Seed CFH(Levee)	lb	7.57						0.18	7.75	7.75
Rice Seed Trt/Insect	lbseed	0.98						0.02	1.00	1.00
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Clearpath	lb	30.63						0.73	31.36	31.36
Crop Oil Conc.(Pet.)	pt	5.48						0.13	5.61	5.61
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
Rice Consultant	acre	8.00						0.16	8.16	8.16
App Fert by Air	cwt	18.69						0.37	19.06	19.06
Urea, Solid (46% N)	cwt	37.89						0.75	38.64	38.64
NBPT	pt	7.20						0.14	7.34	7.34
App by Air (10 gal)	appl	9.00						0.18	9.18	9.18
Newpath	oz	22.98						0.45	23.43	23.43
Crop Oil Conc.(Pet.)	pt	5.48						0.11	5.59	5.59
Aim	oz	8.48						0.17	8.65	8.65
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	4.56						0.07	4.63	4.63
Urea, Solid (46% N)	cwt	9.25						0.15	9.40	9.40
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	59.50						0.47	59.97	59.97
Dry Rice	bu	68.00						0.54	68.54	68.54
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre		27.86	11.46	9.53			0.87	49.72	66.25
TOTALS		569.11	41.99	28.57	34.21	0.00	12.46	686.34	125.80	812.14

Note: Cost of production estimates are based on 2017 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 hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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	833.00	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	62.57	9.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	67.94	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	136.20	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	7.98	5.48	2.61	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	59.50	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.00	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	3.38	0.00	0.00	0.00	0.00	0.00	6.73	3.18	4.08	4.08	8.88	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	8.55	7.33	7.33	7.33	5.53	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.10	7.37	1.46	1.46	9.06	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	5.80	3.16	0.80	0.34	1.20	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	250.30	163.24	50.89	28.93	152.17	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-250.30	-163.24	-50.89	-28.93	680.83	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-280.93	-444.17	-495.06	-523.99	156.84	146.66

Note: Cost of production estimates are based on 2017 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 hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-309 -435	-288 -414	-268 -393	-247 -373	-226 -352	-205 -331	-184 -310	-163 -289	-143 -268	-122 -248	-101 -227
60	102.00	bu	-260 -385	-235 -360	-210 -335	-185 -310	-160 -285	-135 -260	-110 -235	-85 -210	-60 -185	-35 -160	-10 -135
70	119.00	bu	-210 -336	-181 -307	-152 -277	-122 -248	-93 -219	-64 -190	-35 -161	-6 -132	22 -103	51 -73	81 -44
80	136.00	bu	-160 -286	-127 -253	-94 -219	-60 -186	-27 -153	5 -120	39 -86	72 -53	105 -20	139 13	172 46
90	153.00	bu	-111 -237	-73 -199	-36 -162	1 -124	38 -87	76 -49	113 -12	151 25	188 62	226 100	263 137
100	170.00	bu	-61 -187	-19 -145	21 -104	63 -62	105 -20	146 20	188 62	229 104	271 145	313 187	354 229
110	187.00	bu	-11 -137	33 -91	79 -46	125 -0	171 45	217 91	262 137	308 182	354 228	400 274	446 320
120	204.00	bu	37 -88	87 -38	137 11	187 61	237 111	287 161	337 211	387 261	437 311	487 361	537 411
130	221.00	bu	87 -38	141 15	195 69	249 123	303 178	358 232	412 286	466 340	520 394	574 448	628 502
140	238.00	bu	136 11	195 69	253 127	311 186	370 244	428 302	486 360	545 419	603 477	661 535	720 594
150	255.00	bu	186 60	249 123	311 185	373 248	436 310	498 373	561 435	623 498	686 560	748 623	811 685

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 2017 input prices.

Table 12.A Estimated costs per acre
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	3.3220	47.14	_____
NBPT	pt	9.00	0.8000	7.20	_____
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	0.6000	26.94	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.43	0.7500	16.82	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	5.66	23.0000	130.18	_____
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	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.73	0.5000	2.37	_____
Crop Oil Conc. (Pet.)	pt	2.74	0.4000	1.10	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
HAULING					
Haul Rice	bu	0.35	170.0000	59.50	_____
DRYING					
Dry Rice	bu	0.40	170.0000	68.00	_____
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	13.51	0.4999	6.74	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	5.5719	10.05	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	21.9949	39.58	_____
REPAIR & MAINTENANCE					
Implements	acre	7.93	1.0000	7.93	_____
Tractors	acre	3.14	1.0000	3.14	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.78	1.0000	13.78	_____
INTEREST ON OP. CAP.	acre	13.17	1.0000	13.17	_____
TOTAL DIRECT EXPENSES				732.78	_____
FIXED EXPENSES					
Implements	acre	16.84	1.0000	16.84	_____
Tractors	acre	19.79	1.0000	19.79	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.91	1.0000	66.91	_____
TOTAL FIXED EXPENSES				129.22	_____
TOTAL SPECIFIED EXPENSES				862.00	_____

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	170.0000	833.00	_____

TOTAL INCOME				833.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	36.75	1.0000	36.75	_____
FERTILIZERS	acre	71.82	1.0000	71.82	_____
HERBICIDES	acre	151.16	1.0000	151.16	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	138.22	1.0000	138.22	_____
ADJUVANTS	acre	8.58	1.0000	8.58	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
HAULING	acre	59.50	1.0000	59.50	_____
DRYING	acre	68.00	1.0000	68.00	_____
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	13.51	0.6759	9.12	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	30.5114	54.93	_____
REPAIR & MAINTENANCE	acre	31.36	1.0000	31.36	_____
INTEREST ON OP. CAP.	acre	13.17	1.0000	13.17	_____

TOTAL DIRECT EXPENSES				732.78	_____
RETURNS ABOVE DIRECT EXPENSES				100.22	_____
TOTAL FIXED EXPENSES				129.22	_____

TOTAL SPECIFIED EXPENSES				862.00	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-29.00	_____

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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					0.6000				
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				
Karate Z	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	170.0000				
Dry Rice	bu			1.00	Aug	170.0000				
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 2017 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
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Conv Hyb Trt	lb	130.18						3.09	133.27	133.27
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Command 3ME	pt	19.93						0.47	20.40	20.40
Sharpen	oz	12.90						0.31	13.21	13.21
MSO	pt	1.31						0.03	1.34	1.34
Class Act NG	pt	1.19						0.03	1.22	1.22
Seed Levees										
Rice Seed CvH (Levee)	lb	7.06						0.17	7.23	7.23
Rice Seed Trt/Insect	lbseed	0.98						0.02	1.00	1.00
App Fert by Air	cwt	7.00						0.14	7.14	7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	6.85
DAP	cwt	10.76						0.21	10.97	10.97
Rice Consultant	acre	8.00						0.16	8.16	8.16
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Regiment	oz	26.94						0.53	27.47	27.47
Dyne-A-Pak	pt	2.37						0.05	2.42	2.42
App Fert by Air	cwt	18.69						0.37	19.06	19.06
Urea, Solid (46% N)	cwt	37.89						0.75	38.64	38.64
NBPT	pt	7.20						0.14	7.34	7.34
Rice Management										
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.13	6.63	6.63
Facet L	pt	41.02						0.81	41.83	41.83
Permit	oz	16.82						0.33	17.15	17.15
Crop Oil Conc. (Pet.)	pt	1.10						0.02	1.12	1.12
App by Air (5 gal)	appl	3.25						0.05	3.30	3.30
Clincher SF	oz	17.55						0.28	17.83	17.83
MSO	pt	2.61						0.04	2.65	2.65
Rice Management										
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	4.56						0.07	4.63	4.63
Urea, Solid (46% N)	cwt	9.25						0.15	9.40	9.40
Rice Management										
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (3 gal)	appl	7.50						0.09	7.59	7.59
Karate Z	oz	8.22						0.10	8.32	8.32
Rice Management										
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	59.50						0.47	59.97	59.97
Dry Rice	bu	68.00						0.54	68.54	68.54
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	2.25	40.80	14.25	22.56			1.45	81.31	69.67
TOTALS		586.08	54.93	31.36	47.24	0.00	13.17	732.78	129.22	862.00

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

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	833.00	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	62.57	9.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	84.78	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	138.22	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.50	3.47	2.61	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	59.50	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.00	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	3.38	0.00	0.00	0.00	0.00	0.00	11.73	5.44	6.34	6.34	10.13	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	12.31	10.26	10.26	10.26	5.92	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.99	7.95	2.04	2.04	9.22	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	5.13	4.37	0.88	0.41	1.22	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	220.94	225.53	56.74	34.77	153.99	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-220.94	-225.53	-56.74	-34.77	679.01	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-251.57	-477.10	-533.84	-568.61	110.40	100.22

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee rice
 Flood irrigated, 27 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-356 -485	-335 -464	-314 -443	-293 -422	-272 -402	-252 -381	-231 -360	-210 -339	-189 -318	-168 -297	-147 -277
60	102.00	bu	-306 -435	-281 -410	-256 -385	-231 -360	-206 -335	-181 -310	-156 -285	-131 -260	-106 -235	-81 -210	-56 -185
70	119.00	bu	-256 -386	-227 -356	-198 -327	-169 -298	-140 -269	-111 -240	-81 -211	-52 -182	-23 -152	5 -123	34 -94
80	136.00	bu	-207 -336	-173 -303	-140 -269	-107 -236	-73 -203	-40 -169	-7 -136	25 -103	59 -69	92 -36	125 -3
90	153.00	bu	-157 -286	-120 -249	-82 -211	-45 -174	-7 -136	29 -99	67 -61	104 -24	142 13	179 50	217 87
100	170.00	bu	-108 -237	-66 -195	-24 -153	16 -112	58 -70	100 -29	141 12	183 54	225 95	266 137	308 179
110	187.00	bu	-58 -187	-12 -141	33 -95	79 -50	124 -4	170 41	216 87	262 133	308 178	353 224	399 270
120	204.00	bu	-8 -138	41 -88	91 -38	141 11	191 61	241 111	291 161	341 211	391 261	441 311	491 361
130	221.00	bu	40 -88	94 -34	149 19	203 74	257 128	311 182	365 236	419 290	474 344	528 398	582 453
140	238.00	bu	90 -38	148 19	207 77	265 136	323 194	382 252	440 311	498 369	556 427	615 486	673 544
150	255.00	bu	140 10	202 73	265 135	327 198	389 260	452 323	514 385	577 448	639 510	702 573	764 635

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 2017 input prices.

Table 13.A Estimated costs per acre
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	3.3220	47.14	_____
NBPT	pt	9.00	0.8000	7.20	_____
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	0.6000	26.94	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.43	0.7500	16.82	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Karate Z	oz	2.74	3.0000	8.22	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	5.66	23.0000	130.18	_____
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	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.73	0.5000	2.37	_____
Crop Oil Conc. (Pet.)	pt	2.74	0.4000	1.10	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
HAULING					
Haul Rice	bu	0.35	170.0000	59.50	_____
DRYING					
Dry Rice	bu	0.40	170.0000	68.00	_____
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	13.51	0.5281	7.12	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	5.8180	10.50	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	18.7364	33.73	_____
REPAIR & MAINTENANCE					
Implements	acre	7.99	1.0000	7.99	_____
Tractors	acre	3.27	1.0000	3.27	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	13.46	1.0000	13.46	_____
INTEREST ON OP. CAP.	acre	13.09	1.0000	13.09	_____
TOTAL DIRECT EXPENSES				724.80	_____
FIXED EXPENSES					
Implements	acre	17.29	1.0000	17.29	_____
Tractors	acre	20.64	1.0000	20.64	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.58	1.0000	66.58	_____
TOTAL FIXED EXPENSES				130.19	_____
TOTAL SPECIFIED EXPENSES				854.99	_____

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	170.0000	833.00	_____

TOTAL INCOME				833.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	36.75	1.0000	36.75	_____
FERTILIZERS	acre	71.82	1.0000	71.82	_____
HERBICIDES	acre	151.16	1.0000	151.16	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	138.22	1.0000	138.22	_____
ADJUVANTS	acre	8.58	1.0000	8.58	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
HAULING	acre	59.50	1.0000	59.50	_____
DRYING	acre	68.00	1.0000	68.00	_____
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	13.51	0.7041	9.50	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	27.4990	49.53	_____
REPAIR & MAINTENANCE	acre	31.23	1.0000	31.23	_____
INTEREST ON OP. CAP.	acre	13.09	1.0000	13.09	_____

TOTAL DIRECT EXPENSES				724.80	_____
RETURNS ABOVE DIRECT EXPENSES				108.20	_____
TOTAL FIXED EXPENSES				130.19	_____

TOTAL SPECIFIED EXPENSES				854.99	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-21.99	_____

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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					0.6000				
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				
Karate Z	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	170.0000				
Dry Rice	bu			1.00	Aug	170.0000				
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 2017 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
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49	3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99
App by Air (5 gal)	appl	6.50						0.21	6.71	4.41
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93	6.93
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80
Rice Conv Hyb Trt	lb	130.18						3.09	133.27	133.27
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37
App by Air (5 gal)	appl	6.50						0.15	6.65	5.31
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	6.65
Command 3ME	pt	19.93						0.47	20.40	4.59
Sharpen	oz	12.90						0.31	13.21	20.40
MSO	pt	1.31						0.03	1.34	13.21
Class Act NG	pt	1.19						0.03	1.22	1.34
Seed Levees										1.22
Rice Seed CvH (Levee)	lb	7.06						0.17	7.23	1.22
Rice Seed Trt/Insect	lbseed	0.98						0.02	1.00	7.23
App Fert by Air	cwt	7.00						0.14	7.14	1.00
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85	7.14
DAP	cwt	10.76						0.21	10.97	6.85
Rice Consultant	acre	8.00						0.16	8.16	10.97
App by Air (5 gal)	appl	6.50						0.13	6.63	8.16
Regiment	oz	26.94						0.53	27.47	6.63
Dyne-A-Pak	pt	2.37						0.05	2.42	27.47
App Fert by Air	cwt	18.69						0.37	19.06	2.42
Urea, Solid (46% N)	cwt	37.89						0.75	38.64	19.06
NBPT	pt	7.20						0.14	7.34	38.64
Rice Management										7.34
RICE MGT. LABOR	hour				0.91			0.02	0.93	0.93
App by Air (5 gal)	appl	6.50						0.13	6.63	0.93
Facet L	pt	41.02						0.81	41.83	6.63
Permit	oz	16.82						0.33	17.15	41.83
Crop Oil Conc. (Pet.)	pt	1.10						0.02	1.12	17.15
App by Air (5 gal)	appl	3.25						0.05	3.30	1.12
Clincher SF	oz	17.55						0.28	17.83	3.30
MSO	pt	2.61						0.04	2.65	17.83
Rice Management										2.65
RICE MGT. LABOR	hour				1.81			0.03	1.84	1.84
App Fert by Air	cwt	4.56						0.07	4.63	1.84
Urea, Solid (46% N)	cwt	9.25						0.15	9.40	4.63
Rice Management										9.40
RICE MGT. LABOR	hour				1.81			0.02	1.83	1.83
App by Air (3 gal)	appl	7.50						0.09	7.59	1.83
Karate Z	oz	8.22						0.10	8.32	7.59
Rice Management										8.32
RICE MGT. LABOR	hour				1.81			0.01	1.82	1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64
Handling & Storage										1.34
HAND LABOR	hour				2.27			0.02	2.29	2.29
Haul Rice	bu	59.50						0.47	59.97	59.97
Dry Rice	bu	68.00						0.54	68.54	68.54
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70
Flood Irr.	acre	10.50	35.40	14.12	11.94			1.37	73.33	70.64
TOTALS		594.33	49.53	31.23	36.62	0.00	13.09	724.80	130.19	854.99

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

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	833.00	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	62.57	9.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	84.78	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	8.22	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	138.22	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.50	3.47	2.61	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	59.50	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.00	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	3.38	0.00	0.00	0.00	0.00	0.00	9.54	2.72	3.62	3.62	9.86	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	11.19	8.80	8.80	8.80	6.02	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	5.03	7.88	1.97	1.97	9.26	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	5.25	4.29	0.82	0.36	1.21	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	226.04	221.20	52.43	30.47	153.85	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-226.04	-221.20	-52.43	-30.47	679.15	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-256.67	-477.87	-530.30	-560.77	118.38	108.20

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee multi inlet rice
 Flood irrigated, 23 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-348 -478	-327 -457	-306 -436	-285 -415	-264 -395	-244 -374	-223 -353	-202 -332	-181 -311	-160 -290	-139 -270
60	102.00	bu	-298 -428	-273 -403	-248 -378	-223 -353	-198 -328	-173 -303	-148 -278	-123 -253	-98 -228	-73 -203	-48 -178
70	119.00	bu	-248 -379	-219 -349	-190 -320	-161 -291	-132 -262	-103 -233	-73 -204	-44 -175	-15 -145	13 -116	42 -87
80	136.00	bu	-199 -329	-165 -296	-132 -262	-99 -229	-66 -196	-32 -162	0 -129	33 -96	67 -62	100 -29	133 3
90	153.00	bu	-149 -279	-112 -242	-74 -204	-37 -167	0 -129	37 -92	75 -54	112 -17	150 20	187 57	225 94
100	170.00	bu	-100 -230	-58 -188	-16 -146	24 -105	66 -63	108 -21	149 19	191 61	233 102	274 144	316 186
110	187.00	bu	-50 -180	-4 -134	41 -88	87 -43	132 2	178 48	224 94	270 140	316 185	361 231	407 277
120	204.00	bu	-0 -130	49 -81	99 -31	149 18	199 68	249 118	299 168	349 218	399 268	449 318	498 368
130	221.00	bu	48 -81	102 -27	157 26	211 81	265 135	319 189	373 243	427 297	481 351	536 405	590 460
140	238.00	bu	98 -31	156 26	215 84	273 143	331 201	389 259	448 318	506 376	564 434	623 493	681 551
150	255.00	bu	148 17	210 80	273 142	335 205	397 267	460 330	522 392	585 455	647 517	710 580	772 642

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 2017 input prices.

Table 14.A Estimated costs per acre
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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	13.43	0.5000	6.72	_____
DAP	cwt	21.52	0.5000	10.76	_____
Urea, Solid (46% N)	cwt	14.19	3.3220	47.14	_____
NBPT	pt	9.00	0.8000	7.20	_____
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	0.6000	26.94	_____
Facet L	pt	15.25	2.6900	41.02	_____
Permit	oz	22.43	0.7500	16.82	_____
Clincher SF	oz	2.34	7.5000	17.55	_____
INSECTICIDES					
Karate Z	oz	2.74	3.0000	8.22	_____
SEED/PLANTS					
Rice Conv Hyb Trt	lb	5.66	23.0000	130.18	_____
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	2.61	1.5000	3.92	_____
Class Act NG	pt	2.38	0.5000	1.19	_____
Dyne-A-Pak	pt	4.73	0.5000	2.37	_____
Crop Oil Conc. (Pet.)	pt	2.74	0.4000	1.10	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	4.3220	30.25	_____
HAULING					
Haul Rice	bu	0.35	170.0000	59.50	_____
DRYING					
Dry Rice	bu	0.40	170.0000	68.00	_____
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	13.51	0.4228	5.70	_____
Harvesters	hour	13.51	0.1760	2.38	_____
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	13.50	0.5389	7.28	_____
DIESEL FUEL					
Tractors	gal	1.80	4.8970	8.83	_____
Harvesters	gal	1.80	2.9444	5.30	_____
Flood Irr.	gal	1.80	15.4779	27.86	_____
REPAIR & MAINTENANCE					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	2.77	1.0000	2.77	_____
Harvesters	acre	6.51	1.0000	6.51	_____
Flood Irr.	acre	11.46	1.0000	11.46	_____
INTEREST ON OP. CAP.					
	acre	12.59	1.0000	12.59	_____
TOTAL DIRECT EXPENSES				701.19	_____
FIXED EXPENSES					
Implements	acre	16.40	1.0000	16.40	_____
Tractors	acre	17.47	1.0000	17.47	_____
Harvesters	acre	25.68	1.0000	25.68	_____
Flood Irr.	acre	66.25	1.0000	66.25	_____
TOTAL FIXED EXPENSES				125.80	_____
TOTAL SPECIFIED EXPENSES				826.99	_____

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Rice	bu	4.90	170.0000	833.00	_____

TOTAL INCOME				833.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	36.75	1.0000	36.75	_____
FERTILIZERS	acre	71.82	1.0000	71.82	_____
HERBICIDES	acre	151.16	1.0000	151.16	_____
INSECTICIDES	acre	8.22	1.0000	8.22	_____
SEED/PLANTS	acre	138.22	1.0000	138.22	_____
ADJUVANTS	acre	8.58	1.0000	8.58	_____
CUSTOM FERTILIZE	acre	30.25	1.0000	30.25	_____
HAULING	acre	59.50	1.0000	59.50	_____
DRYING	acre	68.00	1.0000	68.00	_____
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	13.51	0.5988	8.08	_____
RICE MGT. LABOR	hour	9.06	0.7000	6.34	_____
UNALLOCATED LABOR	hour	13.50	0.5389	7.28	_____
DIESEL FUEL	gal	1.80	23.3194	41.99	_____
REPAIR & MAINTENANCE	acre	28.57	1.0000	28.57	_____
INTEREST ON OP. CAP.	acre	12.59	1.0000	12.59	_____

TOTAL DIRECT EXPENSES				701.19	_____
RETURNS ABOVE DIRECT EXPENSES				131.81	_____
TOTAL FIXED EXPENSES				125.80	_____

TOTAL SPECIFIED EXPENSES				826.99	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				6.01	_____

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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					0.6000				
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				
Karate Z	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	170.0000				
Dry Rice	bu			1.00	Aug	170.0000				
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 2017 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
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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						0.16	3.49		3.49
Field Cultivate Fld	32'		1.95	1.51	2.39			0.28	6.13	7.66	13.79
Harrow - Folding	40'		0.81	0.51	0.99			0.11	2.42	1.99	4.41
App by Air (5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	6.72						0.21	6.93		6.93
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Grain Drill	24'		1.64	2.38	2.73			0.16	6.91	6.80	13.71
Rice Conv Hyb Trt	lb	130.18						3.09	133.27		133.27
Roller/Cultipacker	30'		1.04	0.55	1.28			0.07	2.94	2.37	5.31
App by Air (5 gal)	appl	6.50						0.15	6.65		6.65
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Command 3ME	pt	19.93						0.47	20.40		20.40
Sharpen	oz	12.90						0.31	13.21		13.21
MSO	pt	1.31						0.03	1.34		1.34
Class Act NG	pt	1.19						0.03	1.22		1.22
Seed Levees											
Rice Seed CvH (Levee)	lb	7.06						0.17	7.23		7.23
Rice Seed Trt/Insect	lbseed	0.98						0.02	1.00		1.00
App Fert by Air	cwt	7.00						0.14	7.14		7.14
Amm Sulfate (21% N)	cwt	6.72						0.13	6.85		6.85
DAP	cwt	10.76						0.21	10.97		10.97
Rice Consultant	acre	8.00						0.16	8.16		8.16
App by Air (5 gal)	appl	6.50						0.13	6.63		6.63
Regiment	oz	26.94						0.53	27.47		27.47
Dyne-A-Pak	pt	2.37						0.05	2.42		2.42
App Fert by Air	cwt	18.69						0.37	19.06		19.06
Urea, Solid (46% N)	cwt	37.89						0.75	38.64		38.64
NBPT	pt	7.20						0.14	7.34		7.34
Rice Management											
RICE MGT. LABOR	hour				0.91			0.02	0.93		0.93
App by Air (5 gal)	appl	6.50						0.13	6.63		6.63
Facet L	pt	41.02						0.81	41.83		41.83
Permit	oz	16.82						0.33	17.15		17.15
Crop Oil Conc. (Pet.)	pt	1.10						0.02	1.12		1.12
App by Air (5 gal)	appl	3.25						0.05	3.30		3.30
Clincher SF	oz	17.55						0.28	17.83		17.83
MSO	pt	2.61						0.04	2.65		2.65
Rice Management											
RICE MGT. LABOR	hour				1.81			0.03	1.84		1.84
App Fert by Air	cwt	4.56						0.07	4.63		4.63
Urea, Solid (46% N)	cwt	9.25						0.15	9.40		9.40
Rice Management											
RICE MGT. LABOR	hour				1.81			0.02	1.83		1.83
App by Air (3 gal)	appl	7.50						0.09	7.59		7.59
Karate Z	oz	8.22						0.10	8.32		8.32
Rice Management											
RICE MGT. LABOR	hour				1.81			0.01	1.82		1.82
Header - Draper (SL)	25' Rigid		5.30	8.88	4.52			0.15	18.85	29.39	48.24
Grain Cart Rice	700 bu		0.23	0.18	0.28			0.01	0.70	0.64	1.34
Handling & Storage											
HAND LABOR	hour				2.27			0.02	2.29		2.29
Haul Rice	bu	59.50						0.47	59.97		59.97
Dry Rice	bu	68.00						0.54	68.54		68.54
Disk Heavy	28'		3.16	3.10	3.88			0.04	10.18	10.70	20.88
Flood Irr.	acre		27.86	11.46	9.53			0.87	49.72	66.25	115.97
TOTALS		583.83	41.99	28.57	34.21	0.00	12.59	701.19	125.80	826.99	

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

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	833.00	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	62.57	9.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	11.52	0.00	37.31	84.78	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	8.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	138.22	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.50	3.47	2.61	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	59.50	0.00
DRYING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.00	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	3.38	0.00	0.00	0.00	0.00	0.00	6.73	3.18	4.08	4.08	8.88	3.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.76	0.00	0.00	0.00	0.00	0.00	8.55	7.33	7.33	7.33	5.53	3.16
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	0.00	4.10	7.37	1.46	1.46	9.06	3.10
INTEREST ON OP. CAP.	0.55	0.00	0.00	0.00	0.57	0.00	4.84	4.25	0.80	0.34	1.20	0.04
TOTAL DIRECT EXPENSES	12.04	0.00	0.00	0.00	18.59	0.00	208.75	219.64	50.89	28.93	152.17	10.18
NET INCOME	-12.04	0.00	0.00	0.00	-18.59	0.00	-208.75	-219.64	-50.89	-28.93	680.83	-10.18
NET INCOME TO DATE	-12.04	-12.04	-12.04	-12.04	-30.63	-30.63	-239.38	-459.02	-509.91	-538.84	141.99	131.81

Note: Cost of production estimates are based on 2017 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
 Conventional hybrid straight levee-zero grade rice
 Flood irrigated, 19 ac-in., Delta Area, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Rice			3.67	3.92	4.16	4.41	4.65	4.90	5.14	5.39	5.63	5.88	6.12
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-324	-303	-282	-262	-241	-220	-199	-178	-157	-137	-116
			-450	-429	-408	-387	-367	-346	-325	-304	-283	-262	-242
60	102.00	bu	-274	-249	-224	-199	-174	-149	-124	-100	-75	-50	-25
			-400	-375	-350	-325	-300	-275	-250	-225	-200	-175	-150
70	119.00	bu	-225	-196	-167	-137	-108	-79	-50	-21	7	37	66
			-351	-321	-292	-263	-234	-205	-176	-147	-117	-88	-59
80	136.00	bu	-175	-142	-109	-75	-42	-9	24	57	90	124	157
			-301	-268	-234	-201	-168	-134	-101	-68	-34	-1	31
90	153.00	bu	-126	-88	-51	-13	23	61	98	136	173	211	248
			-251	-214	-176	-139	-101	-64	-26	10	48	85	122
100	170.00	bu	-76	-34	6	48	90	131	173	215	256	298	340
			-202	-160	-118	-77	-35	6	47	89	130	172	214
110	187.00	bu	-26	18	64	110	156	202	248	293	339	385	431
			-152	-106	-60	-15	30	76	122	168	213	259	305
120	204.00	bu	22	72	122	172	222	272	322	372	422	472	522
			-102	-53	-3	46	96	146	196	246	296	346	396
130	221.00	bu	72	126	180	234	289	343	397	451	505	559	613
			-53	0	54	109	163	217	271	325	379	433	488
140	238.00	bu	122	180	238	296	355	413	471	530	588	646	705
			-3	54	112	171	229	287	346	404	462	521	579
150	255.00	bu	171	234	296	359	421	484	546	609	671	733	796
			45	108	170	233	295	358	420	483	545	608	670

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 2017 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, 2018

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	328,000	300	8	13.64	13.51	24.55	34.16	72.22	134.81	207.04
Combine (300-349 hp)	325 hp	355,000	300	8	16.73	13.51	30.11	36.97	80.60	145.91	226.51
Combine (350-399 hp)	355 hp	354,000	300	8	18.27	13.51	32.88	36.87	83.27	145.50	228.77
Combine (400-449 hp)	425 hp	413,000	300	8	21.87	13.51	39.37	43.02	95.90	169.75	265.65
Combine (450-499hp)	475 hp	427,000	300	8	24.44	13.51	44.00	44.47	101.99	175.50	277.50
Tractor(20-39hp)CB	MFWD 30	28,300	600	8	1.54	13.51	2.77	0.88	17.17	5.32	22.49
Tractor(20-39hp)RB	MFWD 30	20,000	600	8	1.54	13.51	2.77	0.62	16.91	3.76	20.67
Tractor(40-59hp)CB	2WD 50	32,300	600	8	2.57	13.51	4.63	1.00	19.15	6.07	25.22
Tractor(40-59hp)CB	MFWD 50	39,500	600	8	2.57	13.51	4.63	1.23	19.37	7.42	26.80
Tractor(40-59hp)RB	2WD 50	21,100	600	8	2.57	13.51	4.63	0.65	18.80	3.96	22.76
Tractor(40-59hp)RB	MFWD 50	24,800	600	8	2.57	13.51	4.63	0.77	18.91	4.66	23.58
Tractor(60-89hp)CB	2WD 75	49,300	600	8	3.86	13.51	6.94	1.54	21.99	9.27	31.27
Tractor(60-89hp)CB	MFWD 75	52,500	600	8	3.86	13.51	6.94	1.64	22.09	9.87	31.97
Tractor(60-89hp)RB	2WD 75	33,100	600	8	3.86	13.51	6.94	1.03	21.49	6.22	27.71
Tractor(60-89hp)RB	MFWD 75	37,800	600	8	3.86	13.51	6.94	1.18	21.63	7.10	28.74
Tractor(90-119hp)CB	2WD 105	66,300	600	8	5.40	13.51	9.72	2.07	25.31	12.46	37.77
Tractor(90-119hp)CB	MFWD 105	76,100	600	8	5.40	13.51	9.72	2.37	25.61	14.31	39.92
Tractor(90-119hp)RB	2WD 105	60,300	600	8	5.40	13.51	9.72	1.88	25.12	11.33	36.46
Tractor(90-119hp)RB	MFWD 105	67,800	600	8	5.40	13.51	9.72	2.11	25.35	12.75	38.10
Tractor(120-139hp)CB	2WD 130	103,000	600	8	6.69	13.51	12.04	3.21	28.77	19.36	48.14
Tractor(120-139hp)CB	MFWD 130	113,000	600	8	6.69	13.51	12.04	3.53	29.08	21.25	50.33
Tractor(140-159hp)CB	MFWD 150	131,000	600	8	7.72	13.51	13.89	4.09	31.50	24.63	56.13
Tractor(160-179hp)CB	MFWD 170	153,000	600	8	8.75	13.51	15.75	4.78	34.04	30.10	64.14
Tractor(180-199hp)CB	MFWD 190	173,000	600	8	9.77	13.51	17.60	5.40	36.51	34.04	70.56
Tractor(200-249hp)CB	MFWD 225	210,000	600	8	11.58	13.51	20.84	6.56	40.91	41.32	82.24
Tractor(250-349hp)CB	4WD 300	285,000	600	8	15.44	13.51	27.79	8.90	50.21	56.08	106.29
Tractor(250-349hp)CB	MFWD 300	272,000	600	8	15.44	13.51	27.79	8.50	49.80	53.52	103.32
Tractor(250-349hp)CB	Track 300	318,000	600	8	15.44	13.51	27.79	9.93	51.24	62.57	113.81
Tractor(350-449hp)	Track 400	341,000	600	8	20.58	13.51	37.06	10.65	61.22	67.10	128.32
Tractor(350-449hp)CB	4WD 400	331,000	600	8	20.58	13.51	37.06	10.34	60.91	65.13	126.04
Tractor(450-550hp)CB	4WD 500	367,000	600	8	25.73	13.51	46.32	11.46	71.30	72.21	143.52
Tractor(450-550hp)CB	Track 500	445,000	600	8	25.73	13.51	46.32	13.90	73.74	87.56	161.30
Utility Vehicle	800 CC	10,000	200	8	0.70	13.51	1.47	1.56	16.54	6.16	22.70
Utility Vehicle	900 CC	12,600	200	8	1.00	13.51	2.10	1.96	17.57	7.76	25.34
Utility Vehicle-mule	600 CC	8,340	200	8	0.50	13.51	1.05	1.30	15.86	5.14	21.00

Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

CB = Cab, RB = Roll Bar

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, 2018

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	5.97	10.79	22.58	42.59	65.17
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	5.81	8.35	14.13	28.31	55.78	84.09
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	3.88	5.58	9.61	19.08	37.92	57.01
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	4.92	7.17	15.85	27.96	62.56	90.53
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	3.88	5.66	12.51	22.07	49.39	71.47
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	5.81	9.55	21.58	36.96	85.18	122.14
Cotton Picker/Modu	6R-30 (500)	764,000	200	8	25.73	0.218	4.92	10.11	26.05	41.08	102.80	143.89
Cotton Picker/Module	6R-38 (500)	765,000	200	8	25.73	0.172	3.88	7.98	20.59	32.46	81.26	113.73
Dry Applicator SP	70'300cuft	306,000	350	8	16.98	0.015	0.27	0.46	0.24	0.98	1.62	2.61
Sprayer 600-750gal	60' 175hp	193,000	350	8	9.00	0.017	0.31	0.28	0.18	0.78	1.19	1.98
Sprayer 600-825gal	80' 175hp	202,000	350	8	11.81	0.013	0.23	0.28	0.14	0.66	0.94	1.60
Sprayer 600-825gal	90' 250hp	279,000	350	8	12.73	0.011	0.21	0.26	0.17	0.65	1.15	1.81
Sprayer 800gal	100' 250hp	280,000	350	8	14.15	0.010	0.19	0.26	0.15	0.61	1.04	1.66
Sprayer 800gal	80' 250hp	254,000	350	8	12.86	0.013	0.23	0.30	0.17	0.72	1.18	1.90
Sprayer 1000-1400gal	90' 275hp	299,000	350	8	14.15	0.010	0.19	0.26	0.16	0.62	1.11	1.74
Sprayer 1000gal	100' 300hp	310,000	350	8	15.44	0.010	0.19	0.29	0.17	0.66	1.15	1.81
Sprayer 1200+gal	120' 300hp	334,000	350	8	15.44	0.008	0.15	0.24	0.15	0.56	1.03	1.59
xxCotton Picker/Modu	6R-38 (365)	536,000	200	8	20.58	0.172	3.88	6.38	14.43	24.70	56.94	81.64

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, 2018

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost	
									Imp.	P.U.		Imp.	P.U.		
			dollars	hours	years	hr/ac	-----\$/acre-----								
Bed-Paratill	Fold	8R-38	MFWD 225	54,400	150	12	0.080	1.09	1.68	1.58	0.52	4.89	2.75	3.33	10.98
Bed-Paratill	Fold	8R-38 2x1	MFWD 225	69,100	150	12	0.053	0.72	1.12	1.34	0.35	3.54	2.32	2.22	8.09
Bed-Paratill	Fold	12R-38	MFWD 225	69,100	150	12	0.053	0.72	1.12	1.34	0.35	3.54	2.32	2.22	8.09
Bed-Paratill	Rigid	4R-30	MFWD 225	12,300	150	12	0.204	2.76	4.25	0.90	1.34	9.26	1.57	8.44	19.28
Bed-Paratill	Rigid	4R-38	MFWD 225	12,300	150	12	0.160	2.17	3.35	0.71	1.05	7.29	1.23	6.64	15.18
Bed-Paratill	Rigid	6R-30	MFWD 225	17,300	150	12	0.136	1.84	2.83	0.85	0.89	6.42	1.47	5.62	13.53
Bed-Paratill	Rigid	6R-38	MFWD 225	17,200	150	12	0.107	1.45	2.24	0.66	0.70	5.06	1.15	4.44	10.67
Bed-Paratill	Rigid	8R-30	MFWD 225	22,600	150	12	0.102	1.38	2.12	0.83	0.67	5.01	1.44	4.22	10.68
Bed-Paratill	Rigid	8R-38	MFWD 225	22,600	150	12	0.080	1.09	1.68	0.65	0.52	3.96	1.14	3.33	8.44
Bed-Paratill	w/rol	4R-30	MFWD 225	17,900	150	12	0.204	2.76	4.25	1.32	1.34	9.68	2.29	8.44	20.41
Bed-Paratill	w/rol	4R-38	MFWD 225	17,900	150	12	0.160	2.17	3.35	1.03	1.05	7.62	1.80	6.64	16.07
Bed-Paratill	w/rol	6R-38	MFWD 225	25,200	150	12	0.107	1.45	2.24	0.97	0.70	5.37	1.69	4.44	11.52
Bed-Rip/Disk	Fold.	8R-38	MFWD 190	36,900	300	20	0.073	0.98	1.28	0.13	0.39	2.80	0.63	2.48	5.93
Bed-Rip/Disk	Fold.	12R-30	MFWD 225	56,600	300	20	0.061	0.83	1.28	0.17	0.40	2.69	0.82	2.54	6.06
Bed-Rip/Disk	Fold.	12R-38	MFWD 225	56,600	300	20	0.046	0.62	0.96	0.13	0.30	2.02	0.62	1.91	4.55
Bed-Rip/Disk	Rigid	4R-30	MFWD 190	17,300	300	20	0.184	2.49	3.25	0.15	0.99	6.91	0.75	6.29	13.96
Bed-Rip/Disk	Rigid	4R-38	MFWD 190	17,300	300	20	0.146	1.98	2.58	0.12	0.79	5.48	0.60	4.99	11.08
Bed-Rip/Disk	Rigid	6R-38	MFWD 190	23,900	300	20	0.097	1.31	1.71	0.11	0.52	3.66	0.55	3.31	7.53
Bed-Rip/Disk	Rigid	8R-30	MFWD 190	31,300	300	20	0.139	1.87	2.44	0.21	0.75	5.29	1.03	4.73	11.05
Bed-Rip/Disk	Rigid	8R-38	MFWD 190	31,300	300	20	0.073	0.98	1.28	0.11	0.39	2.78	0.54	2.48	5.81
Bed-Rip/Disk	Rigid	6R-30	MFWD 190	23,900	300	20	0.123	1.66	2.16	0.14	0.66	4.64	0.69	4.19	9.54
Bed-Rip/Disk/Cond.	6-Row	MFWD 225	24,600	150	12	0.107	1.45	2.24	0.95	0.70	5.35	1.65	4.44	11.45	
Bed-Rip/Disk/Cond.	8-Row	MFWD 225	32,700	150	12	0.080	1.09	1.68	0.95	0.52	4.25	1.65	3.33	9.25	
Bed/Disk (Hipper)	4R-38	MFWD 150	9,200	160	10	0.147	1.99	2.05	0.33	0.60	4.99	0.89	3.63	9.52	
Bed/Disk (Hipper)	6R-30	MFWD 170	15,100	160	10	0.125	1.68	1.96	0.47	0.59	4.72	1.24	3.76	9.73	
Bed/Disk (Hipper)	6R-38	MFWD 170	13,000	160	10	0.098	1.33	1.55	0.32	0.47	3.67	0.84	2.97	7.49	
Bed/Disk (Hipper)	8R-30	MFWD 190	14,400	160	10	0.093	1.26	1.65	0.33	0.50	3.76	0.89	3.19	7.84	
Bed/Disk (Hipper)	8R-38 2x1	MFWD 190	29,200	160	10	0.049	0.66	0.86	0.36	0.26	2.16	0.95	1.67	4.79	
Bed/Disk (Hipper)	12R-30	MFWD 225	28,400	160	10	0.062	0.84	1.30	0.44	0.41	3.00	1.17	2.58	6.75	
Bed/Disk (Hipper)	12R-38	MFWD 225	29,200	160	10	0.049	0.66	1.02	0.36	0.32	2.37	0.95	2.03	5.36	
Bed/Disk (Hipper)	16R40	MFWD 300	47,000	160	10	0.035	0.47	0.98	0.41	0.30	2.17	1.09	1.89	5.16	
Bed/Disk (Hipper)Fl	8R-38	MFWD 190	20,000	160	10	0.074	1.00	1.30	0.37	0.40	3.07	0.97	2.52	6.57	
Bed/Disk (Hipper)Rd	8R-38	MFWD 190	15,600	160	10	0.074	1.00	1.30	0.28	0.40	2.99	0.76	2.52	6.28	
Bed/Disk w/roller	8R-30/40	MFWD 190	26,600	160	10	0.093	1.26	1.65	0.62	0.50	4.04	1.64	3.19	8.88	
Bed/Disk w/roller	12R-30/40	MFWD 225	44,300	160	10	0.062	0.84	1.30	0.69	0.41	3.24	1.82	2.58	7.66	
Bed/Disk w/roller	8R-38	MFWD 190	26,600	160	10	0.074	1.00	1.30	0.49	0.40	3.19	1.30	2.52	7.02	
Bed/Lister	4R-38	MFWD 150	18,200	160	8	0.228	3.08	3.17	0.97	0.93	8.16	3.06	5.62	16.86	
Bed/Lister	6R-38	MFWD 150	19,100	160	8	0.120	1.62	1.67	0.53	0.49	4.32	1.69	2.96	8.97	
Bed/Lister	8R-30	MFWD 190	23,100	160	8	0.114	1.54	2.01	0.61	0.61	4.78	1.94	3.88	10.62	
Bed/Lister	8R-38	MFWD 190	23,400	160	8	0.090	1.21	1.58	0.49	0.48	3.79	1.55	3.07	8.42	
Bed/Lister	8R-38 2x1	MFWD 190	46,700	160	8	0.060	0.81	1.05	0.65	0.32	2.85	2.07	2.04	6.96	
Bed/Lister	12R-38	MFWD 225	46,700	160	8	0.060	0.81	1.25	0.65	0.39	3.11	2.07	2.48	7.67	
Bed/Lister	16R-30	MFWD 225	58,100	160	8	0.035	0.47	0.73	0.47	0.23	1.91	1.50	1.45	4.87	
Bed/Lister	16R40	MFWD 300	60,900	160	8	0.043	0.58	1.19	0.61	0.36	2.76	1.93	2.30	7.00	
Bed/Lister-Roll-Fold	8R-38	MFWD 190	24,300	160	10	0.074	1.00	1.30	0.45	0.40	3.15	1.18	2.52	6.86	
Bed/Lister-Roll-Fold	12R-30	MFWD 225	29,200	160	10	0.062	0.84	1.30	0.45	0.41	3.01	1.20	2.58	6.80	
Bed/Lister-Roll-Fold	12R-38	MFWD 225	33,700	160	10	0.049	0.66	1.02	0.41	0.32	2.43	1.09	2.03	5.57	
Bed/Lister-Roll-Fold	16R-30	MFWD 225	34,800	160	10	0.046	0.63	0.97	0.40	0.30	2.32	1.07	1.93	5.34	
Bed/Lister-Roll-Rig.	8R-38	MFWD 190	20,300	160	10	0.074	1.00	1.30	0.37	0.40	3.08	0.99	2.52	6.59	
Blade-Box	6'-7'	MFWD 105	1,180	200	20	0.020	0.27	0.19	0.01	0.04	0.51	0.00	0.25	0.78	
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	1,190	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	4.53	1.96	1.39	11.37	3.99	8.77	24.15	
Boll Buggy	4R-38 (350)	MFWD 190	30,500	200	10	0.257	3.48	4.53	1.96	1.39	11.37	3.99	8.77	24.15	
Boll Buggy	4R2x1 (350)	MFWD 190	30,500	200	10	0.172	2.32	3.03	1.31	0.93	7.60	2.67	5.86	16.14	
Boll Buggy	6R-30 (355)	MFWD 190	30,500	200	10	0.218	2.94	3.84	1.66	1.17	9.63	3.38	7.42	20.44	
Boll Buggy	6R-38 (355)	MFWD 190	30,500	200	10	0.172	2.32	3.03	1.31	0.93	7.60	2.67	5.86	16.14	
Chisel Plow-Folding	24'	MFWD 190	39,300	150	12	0.076	1.03	1.34	1.08	0.41	3.87	1.88	2.60	8.36	
Chisel Plow-Folding	32'	MFWD 225	51,000	150	12	0.057	0.78	1.20	1.06	0.37	3.42	1.84	2.38	7.66	
Chisel Plow-Folding	42'	MFWD 225	61,600	150	12	0.044	0.59	0.91	0.97	0.28	2.78	1.69	1.81	6.29	
Chisel Plow-Folding	50'	MFWD 225	80,300	150	10	0.036	0.49	0.77	1.28	0.24	2.79	2.09	1.52	6.41	
Chisel Plow-Folding	61'	MFWD 225	90,200	150	12	0.030	0.40	0.63	0.98	0.19	2.22	1.71	1.25	5.19	
Chisel Plow-Rigid	10'	MFWD 170	6,600	150	12	0.184	2.49	2.91	0.44	0.88	6.73	0.76	5.56	13.06	
Chisel Plow-Rigid	15'	2WD 130	11,600	150	12	0.123	1.66	1.48	0.51	0.39	4.06	0.89	2.38	7.34	
Chisel Plow-Rigid	20'	MFWD 225	11,200	150	12	0.102	1.38	2.14	0.41	0.67	4.61	0.72	4.24	9.58	
Chisel Plow-Rigid	24'	MFWD 190	11,700	150	12	0.077	1.04	1.35	0.32	0.41	3.13	0.56	2.62	6.32	
Cultivate	4R-30	2WD 105	12,100	150	10	0.206	2.78	2.00	0.66	0.42	5.88	1.75	2.57	10.21	
Cultivate	4R-38	2WD 105	12,200	150	10	0.162	2.19	1.57	0.52	0.30	4.60	1.39	1.84	7.84	
Cultivate	6R-30	MFWD 150	16,300	150	10	0.137	1.85	1.91	0.59	0.56	4.92	1.57	3.38	9.89	
Cultivate	6R-38	MFWD 150	17,200	150	10	0.108	1.46	1.50	0.49	0.44	3.91	1.31	2.67	7.90	
Cultivate	8R-30	MFWD 190	20,600	150	10	0.103	1.39	1.81	0.56	0.55	4.33	1.49	3.51	9.34	
Cultivate	8R-38	MFWD 190	21,600	150	10	0.073	0.99	1.29	0.42	0.39	3.11	1.12	2.50	6.74	
Cultivate	8R-38 2x1	MFWD 190	37,500	150	10	0.054	0.73	0.95	0.54	0.29	2.52	1.43	1.84	5.80	

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2018 (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	12R-30	MFWD 225	36,200	150	10	0.068	0.92	1.43	0.66	0.45	3.47	1.75	2.84	8.07
Cultivate	12R-38	MFWD 225	37,500	150	10	0.054	0.73	1.13	0.54	0.35	2.76	1.43	2.24	6.44
Cultivate	16R-30	MFWD 225	47,800	150	10	0.051	0.69	1.07	0.65	0.33	2.76	1.73	2.13	6.63
Cultivate & Post	4R-30	2WD 105	17,500	150	10	0.220	3.96	2.14	1.02	0.41	7.55	2.71	2.49	12.75
Cultivate & Post	4R-38	2WD 105	17,600	150	10	0.173	3.12	1.68	0.81	0.32	5.94	2.14	1.96	10.06
Cultivate & Post	6R-30	MFWD 150	21,700	150	10	0.146	2.64	2.03	0.84	0.60	6.13	2.24	3.61	11.98
Cultivate & Post	6R-38	MFWD 150	22,600	150	10	0.115	2.08	1.60	0.69	0.47	4.86	1.84	2.85	9.56
Cultivate & Post	8R-30	MFWD 190	26,000	150	10	0.110	1.98	1.93	0.76	0.59	5.27	2.01	3.74	11.03
Cultivate & Post	8R-38	MFWD 190	27,000	150	10	0.086	1.56	1.53	0.62	0.47	4.19	1.65	2.96	8.80
Cultivate & Post	8R-38 2x1	MFWD 190	44,500	150	10	0.057	1.04	1.01	0.68	0.31	3.06	1.81	1.97	6.84
Cultivate & Post	10R-30	MFWD 225	32,000	150	10	0.088	1.58	1.83	0.75	0.57	4.75	1.98	3.63	10.37
Cultivate & Post	12R-30	MFWD 225	41,500	150	10	0.073	1.32	1.52	0.81	0.48	4.14	2.14	3.03	9.31
Cultivate & Post	12R-38	MFWD 225	44,500	150	10	0.057	1.04	1.20	0.68	0.37	3.31	1.81	2.39	7.52
Cultivate & Post	16R-30	MFWD 225	54,900	150	10	0.055	0.99	1.14	0.80	0.36	3.30	2.12	2.27	7.70
Disk & Incorporate	14'	2WD 130	30,100	200	10	0.149	2.69	1.80	1.35	0.48	6.33	2.37	2.89	11.61
Disk & Incorporate	20'	MFWD 190	44,500	180	10	0.092	1.24	1.62	1.37	0.49	4.74	2.41	3.14	10.30
Disk & Incorporate	24'	MFWD 190	46,900	200	10	0.087	1.57	1.53	1.22	0.47	4.81	2.16	2.97	9.94
Disk & Incorporate	28'	MFWD 225	55,500	200	10	0.074	1.34	1.55	1.24	0.49	4.64	2.19	3.09	9.93
Disk & Incorporate	32'	MFWD 225	61,000	200	10	0.065	1.18	1.36	1.19	0.42	4.17	2.11	2.70	8.99
Disk Harrow	14'	2WD 130	24,800	180	10	0.140	1.89	1.68	0.96	0.45	5.00	2.04	2.71	9.76
Disk Harrow	20'	MFWD 190	39,200	180	10	0.098	1.32	1.72	1.06	0.53	4.65	2.25	3.34	10.25
Disk Harrow	24'	MFWD 190	41,500	180	10	0.081	1.10	1.44	0.94	0.44	3.93	1.99	2.78	8.71
Disk Harrow	28'	MFWD 225	50,100	180	10	0.070	0.94	1.46	0.97	0.46	3.84	2.06	2.89	8.80
Disk Harrow	32'	MFWD 225	55,700	180	10	0.061	0.82	1.27	0.94	0.40	3.46	2.00	2.53	8.00
Disk Harrow	42'	MFWD 225	96,300	180	10	0.046	0.63	0.97	1.25	0.30	3.16	2.64	1.93	7.74
Disk Harrow 40-100hp	14'	2WD 75	14,900	180	10	0.140	1.89	0.97	0.58	0.14	3.59	1.22	0.87	5.69
Disk Heavy	14'	MFWD 150	24,800	180	10	0.145	1.97	2.02	1.00	0.59	5.60	2.12	3.59	11.32
Disk Heavy	20'	MFWD 170	39,200	180	10	0.097	1.31	1.53	1.05	0.46	4.37	2.23	2.92	9.54
Disk Heavy	28'	MFWD 190	50,100	180	10	0.075	1.02	1.33	1.05	0.40	3.81	2.22	2.57	8.61
Disk Ripper	15'	MFWD 225	45,200	180	10	0.136	1.84	2.83	1.71	0.89	7.28	3.61	5.62	16.52
Ditcher	2WD 130	5,700	200	10	0.020	0.27	0.24	0.04	0.06	0.29	0.02	0.08	0.50	1.06
Ditcher (1m/160a)	2WD 130	5,700	200	10	0.009	0.12	0.11	0.02	0.03	0.29	0.02	0.18	0.50	1.06
Fert Appl (Liquid)	4R-38	MFWD 150	12,900	150	8	0.154	2.79	2.14	1.33	0.63	6.90	1.50	3.81	12.21
Fert Appl (Liquid)	6R-30	MFWD 170	16,300	150	8	0.130	2.36	2.06	1.42	0.62	6.47	1.60	3.94	12.02
Fert Appl (Liquid)	6R-38	MFWD 170	15,600	150	8	0.103	1.86	1.62	1.07	0.49	5.06	1.21	3.11	9.38
Fert Appl (Liquid)	8R-30	MFWD 190	16,300	150	8	0.098	1.77	1.72	1.06	0.53	5.09	1.20	3.34	9.64
Fert Appl (Liquid)	8R-38	MFWD 190	18,400	150	8	0.077	1.40	1.36	0.95	0.41	4.13	1.07	2.64	7.85
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	19,700	150	8	0.051	0.93	0.90	0.67	0.27	2.80	0.76	1.75	5.32
Fert Appl (Liquid)	12R-30	MFWD 225	20,000	150	8	0.078	1.41	1.63	1.04	0.51	4.61	1.18	3.24	9.04
Fert Appl (Liquid)	12R-38	MFWD 225	19,000	150	8	0.051	0.93	1.07	0.65	0.33	3.00	0.73	2.13	5.87
Field Cult & Inc	42'	MFWD 225	59,700	100	10	0.037	0.68	0.78	0.56	0.24	2.28	2.38	1.56	6.22
Field Cult & Inc	50'	MFWD 225	72,000	100	10	0.031	0.57	0.66	0.57	0.20	2.01	2.41	1.31	5.73
Field Cult & Inc Fld	24'	MFWD 170	34,500	100	10	0.066	1.19	1.04	0.57	0.31	3.12	2.40	1.99	7.52
Field Cult & Inc Fld	32'	MFWD 190	43,800	100	10	0.049	0.89	0.87	0.54	0.26	2.57	2.29	1.68	6.56
Field Cult & Inc Rdg	12'	2WD 150	15,800	100	10	0.132	2.38	1.83	0.52	0.44	5.19	2.20	2.68	10.08
Field Cultivate Fld	24'	MFWD 170	29,100	100	10	0.062	0.84	0.98	0.45	0.29	2.57	1.91	1.87	6.35
Field Cultivate Fld	32'	MFWD 190	38,500	100	10	0.046	0.63	0.82	0.44	0.25	2.15	1.89	1.58	5.63
Field Cultivate Fld	42'	MFWD 225	52,600	100	10	0.035	0.48	0.74	0.46	0.23	1.92	1.97	1.46	5.36
Field Cultivate Fld	50'	MFWD 225	62,100	100	10	0.029	0.40	0.62	0.46	0.19	1.68	1.95	1.23	4.87
Field Cultivate Rdg	12'	2WD 150	10,400	100	10	0.124	1.68	1.72	0.32	0.41	4.15	1.36	2.52	8.04
Grain Cart Corn	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.08	0.28	0.86	2.23
Grain Cart Corn	700 bu	MFWD 190	36,700	200	12	0.025	0.34	0.44	0.25	0.13	1.17	0.43	0.86	2.47
Grain Cart Corn	1000 bu	MFWD 225	45,700	200	12	0.025	0.34	0.52	0.31	0.16	1.34	0.54	1.04	2.93
Grain Cart Rice	500 bu	MFWD 190	24,000	200	12	0.062	0.84	1.10	0.40	0.33	2.68	0.70	2.12	5.52
Grain Cart Rice	700 bu	MFWD 190	36,700	200	12	0.055	0.74	0.96	0.54	0.29	2.55	0.94	1.87	5.37
Grain Cart Rice	1000 bu	MFWD 190	45,700	200	12	0.045	0.61	0.80	0.56	0.24	2.24	0.98	1.56	4.78
Grain Cart Soybean	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.09	0.28	0.86	2.25
Grain Cart Soybean	700 bu	MFWD 190	36,700	200	12	0.021	0.28	0.37	0.21	0.11	0.98	0.36	0.72	2.07
Grain Cart Soybean	1000 bu	MFWD 190	45,700	200	12	0.021	0.28	0.37	0.26	0.11	1.03	0.45	0.72	2.21
Grain Cart Wht/Sor	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.09	0.28	0.86	2.25
Grain Cart Wht/Sor	700 bu	MFWD 190	36,700	200	12	0.021	0.28	0.37	0.21	0.11	0.98	0.36	0.72	2.07
Grain Cart Wht/Sor	1000 bu	MFWD 190	45,700	200	12	0.021	0.28	0.37	0.26	0.11	1.03	0.45	0.72	2.21
Grain Drill	10'	2WD 130	26,700	150	8	0.188	4.25	2.27	1.88	0.60	9.02	3.61	3.65	16.28
Grain Drill	12'	2WD 130	25,200	150	8	0.157	3.54	1.89	1.48	0.50	7.43	2.84	3.04	13.31
Grain Drill	15'	MFWD 150	31,800	150	8	0.125	2.83	1.74	1.49	0.51	6.59	2.86	3.09	12.56
Grain Drill	20'	MFWD 170	37,300	150	8	0.094	2.12	1.48	1.31	0.45	5.38	2.52	2.83	10.74
Grain Drill	24'	MFWD 190	63,000	150	8	0.078	1.77	1.38	1.85	0.42	5.43	3.55	2.67	11.66
Grain Drill	30'	MFWD 225	59,500	150	8	0.062	1.41	1.31	1.40	0.41	4.54	2.68	2.59	9.82
Grain Drill	35'	MFWD 225	90,600	150	8	0.053	1.21	1.12	1.83	0.35	4.52	3.50	2.22	10.25
Grain Drill & Pre	10'	2WD 130	32,000	150	8	0.203	4.58	2.44	2.43	0.65	10.12	4.66	3.93	18.71
Grain Drill & Pre	12'	2WD 130	30,600	150	8	0.169	3.81	2.03	1.94	0.54	8.34	3.71	3.27	15.33
Grain Drill & Pre	15'	MFWD 150	37,200	150	8	0.135	3.05	1.88	1.88	0.55	7.37	3.61	3.33	14.32
Grain Drill & Pre	20'	MFWD 170	42,700	150	8	0.101	2.29	1.59	1.62	0.48	6.00	3.11	3.05	12.16

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2018 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total Direct	--Fixed-- Imp.	Total P.U.	Total Cost	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Grain Drill & Pre	24'	MFWD 190	68,400	150	8	0.084	1.90	1.48	2.17	0.45	6.02	4.15	2.88	13.06
Grain Drill & Pre	30'	MFWD 225	64,800	150	8	0.067	1.52	1.41	1.64	0.44	5.02	3.14	2.79	10.97
Grain Drill & Pre	35'	MFWD 225	96,000	150	8	0.058	1.30	1.20	2.08	0.38	4.98	3.99	2.39	11.38
Grain Drill & Pre T	8R-38	MFWD 225	49,600	150	8	0.062	1.41	1.31	1.16	0.41	4.31	2.23	2.59	9.14
Harrow - Rigid	21'	2WD 150	6,750	200	10	0.073	0.99	1.02	0.17	0.24	2.45	0.26	1.50	4.21
Harrow - Folding	24'	MFWD 190	12,800	200	10	0.064	0.87	1.13	0.28	0.34	2.65	0.43	2.20	5.29
Harrow - Folding	30'	MFWD 190	15,400	200	10	0.051	0.69	0.91	0.27	0.27	2.16	0.42	1.76	4.35
Harrow - Folding	40'	MFWD 190	19,200	200	10	0.038	0.52	0.68	0.26	0.20	1.67	0.39	1.32	3.39
Harrow - Folding	48'	MFWD 225	23,000	200	10	0.032	0.43	0.67	0.26	0.21	1.58	0.39	1.33	3.31
Harrow - Rigid	13'	2WD 130	4,950	200	10	0.119	1.61	1.43	0.20	0.38	3.64	0.31	2.31	6.27
Header - Corn	6R-30	265 hp	47,300	300	8	0.170	2.30	4.18	2.01	5.81	14.31	3.02	22.95	40.29
Header - Corn	6R-38	265 hp	47,700	300	8	0.134	1.81	3.30	1.60	4.59	11.31	2.41	18.12	31.84
Header - Corn	8R-30	265 hp	61,500	300	8	0.127	1.72	3.13	1.96	4.36	11.18	2.95	17.21	31.35
Header - Corn	8R-38	325 hp	62,100	300	8	0.100	1.36	3.04	1.56	3.73	9.70	2.35	14.73	26.79
Header - Corn	12R-20	325 hp	94,400	300	8	0.127	1.72	3.84	3.01	4.72	13.30	4.53	18.63	36.47
Header - Corn	12R-30	325 hp	96,300	300	8	0.085	1.15	2.56	2.04	3.14	8.91	3.08	12.42	24.41
Header - Draper (CL)	25' Rigid	265 hp	58,800	300	8	0.203	2.74	4.98	2.73	6.93	17.40	4.28	27.37	49.06
Header - Draper (CL)	30' Rigid	325 hp	67,900	300	8	0.169	2.28	5.09	2.63	6.25	16.27	4.12	24.69	45.08
Header - Draper (CL)	36' Rigid	355 hp	72,000	300	8	0.141	1.90	4.63	2.32	5.20	14.07	3.64	20.51	38.23
Header - Draper (CL)	40' Rigid	425 hp	76,300	30	8	0.126	1.71	4.99	22.19	5.46	34.36	34.73	21.54	90.64
Header - Draper (SL)	25' Rigid	325 hp	58,800	300	8	0.176	2.37	5.30	2.37	6.50	16.55	3.71	25.68	45.94
Header - Draper (SL)	30' Rigid	325 hp	67,900	300	8	0.146	1.98	4.41	2.28	5.42	14.10	3.57	21.40	39.07
Header - Draper (SL)	36' Rigid	355 hp	72,000	300	8	0.122	1.65	4.01	2.01	4.50	12.19	3.15	17.78	33.13
Header - Drapper	40' Rigid	425 hp	76,300	30	8	0.110	1.48	4.33	19.23	4.73	29.78	30.10	18.67	78.55
Header - Rice (CL)	25' Rigid	325 hp	64,400	300	8	0.253	3.42	7.64	4.08	9.38	24.54	6.14	37.03	67.73
Header - Rice (CL)	30' Rigid	325 hp	74,100	300	8	0.211	2.85	6.37	3.91	7.82	20.96	5.89	30.86	57.73
Header - Rice (SL)	25' Rigid	325 hp	64,400	300	8	0.220	2.97	6.62	3.54	8.13	21.27	5.32	32.10	58.70
Header - Rice (SL)	30' Rigid	325 hp	74,100	300	8	0.183	2.47	5.52	3.39	6.77	18.17	5.10	26.74	50.03
Header -RiceStrp(CL)	20'	265 hp	49,100	300	8	0.253	3.42	6.23	3.11	8.67	21.45	4.68	34.22	60.36
Header -RiceStrp(CL)	24'	325 hp	54,500	300	8	0.211	2.85	6.37	2.88	7.82	19.93	4.33	30.86	55.13
Header -RiceStrp(CL)	32'	325 hp	59,900	300	8	0.158	2.14	4.77	2.37	5.86	15.16	3.57	23.14	41.88
Header -RiceStrp(SL)	20'	265 hp	49,100	300	8	0.220	2.97	5.40	2.70	7.51	18.59	4.06	29.65	52.31
Header -RiceStrp(SL)	24'	325 hp	54,500	300	8	0.183	2.47	5.52	2.49	6.77	17.27	3.75	26.74	47.78
Header -RiceStrp(SL)	32'	325 hp	59,900	300	8	0.137	1.85	4.14	2.05	5.08	13.14	3.09	20.06	36.30
Header -Soybean	22' Flex	265 hp	32,400	300	8	0.116	1.56	2.85	0.94	3.96	9.32	1.41	15.65	26.39
Header -Soybean	25' Flex	325 hp	34,600	300	8	0.102	1.38	3.07	0.88	3.77	9.11	1.32	14.90	25.35
Header -Soybean	30' Flex	325 hp	41,400	300	8	0.085	1.15	2.56	0.88	3.14	7.74	1.32	12.42	21.49
Header -Soybean	35' Flex	355 hp	46,700	300	8	0.072	0.98	2.40	0.85	2.69	6.92	1.28	10.61	18.82
Header Wheat/Sorghum	22' Rigid	265 hp	19,800	300	8	0.116	1.56	2.85	0.57	3.96	8.96	0.86	15.65	25.47
Header Wheat/Sorghum	25' Rigid	325 hp	20,500	300	8	0.102	1.38	3.07	0.52	3.77	8.75	0.78	14.90	24.45
Header Wheat/Sorghum	30' Rigid	325 hp	23,600	300	8	0.085	1.15	2.56	0.50	3.14	7.36	0.75	12.42	20.54
Land Plane	50'x16'	MFWD 190	14,300	200	10	0.151	2.04	2.66	0.43	0.81	5.97	1.14	5.16	12.28
Levee Pull & Seed	8 Blade	MFWD 170	10,400	100	10	0.003	0.04	0.05	0.00	0.01	0.12	0.03	0.10	0.27
Levee Pull (1m/80a)	8 blade	MFWD 170	7,180	100	10	0.003	0.04	0.05	0.00	0.01	0.12	0.02	0.10	0.26
Levee Splitter (1/80	32"	MFWD 150	7,180	100	10	0.004	0.05	0.05	0.00	0.01	0.13	0.03	0.10	0.27
Module Builder	4R-38(250)	MFWD 190	34,700	200	10	0.257	5.81	4.53	2.23	1.39	13.98	4.54	8.77	27.30
Module Builder	4R-38(350)	MFWD 190	34,700	200	10	0.257	5.81	4.53	2.23	1.39	13.98	4.54	8.77	27.30
Module Builder	4R2x1(350)	MFWD 190	34,700	200	10	0.172	3.88	3.03	1.49	0.93	9.34	3.03	5.86	18.25
Module Builder	6R-30(355)	MFWD 190	34,700	200	10	0.218	4.92	3.84	1.89	1.17	11.84	3.85	7.42	23.12
Module Builder	6R-38(355)	MFWD 190	34,700	200	10	0.172	3.88	3.03	1.49	0.93	9.34	3.03	5.86	18.25
NT Grain Drill	10'	2WD 130	35,100	150	8	0.235	5.31	2.83	3.10	0.75	12.02	5.93	4.56	22.52
NT Grain Drill	12'	2WD 130	42,200	150	8	0.163	3.69	1.97	2.59	0.52	8.78	4.95	3.17	16.90
NT Grain Drill	15'	MFWD 150	49,200	150	8	0.130	2.95	1.81	2.41	0.53	7.72	4.62	3.22	15.57
NT Grain Drill	20'	MFWD 170	66,300	150	8	0.098	2.21	1.54	2.44	0.46	6.67	4.67	2.95	14.30
NT Grain Drill	24'	MFWD 190	75,600	150	8	0.081	1.84	1.44	2.32	0.44	6.05	4.43	2.78	13.27
NT Grain Drill	30'	MFWD 225	89,000	150	8	0.065	1.47	1.36	2.18	0.42	5.45	4.18	2.70	12.34
NT Grain Drill & Pre	10'	2WD 130	40,400	150	8	0.211	4.77	2.54	3.20	0.68	11.20	6.13	4.09	21.43
NT Grain Drill & Pre	12'	2WD 130	47,500	150	8	0.176	3.97	2.12	3.13	0.56	9.80	6.00	3.41	19.23
NT Grain Drill & Pre	15'	MFWD 150	54,600	150	8	0.141	3.18	1.95	2.88	0.57	8.60	5.52	3.47	17.60
NT Grain Drill & Pre	20'	MFWD 170	71,600	150	8	0.105	2.38	1.66	2.83	0.50	7.39	5.43	3.18	16.01
NT Grain Drill & Pre	24'	MFWD 190	81,000	150	8	0.088	1.98	1.55	2.67	0.47	6.69	5.12	3.00	14.81
NT Grain Drill & Pre	30'	MFWD 225	94,300	150	8	0.070	1.59	1.46	2.49	0.46	6.01	4.76	2.91	13.70
NT Plant&Pre-Folding	8R-38	MFWD 170	56,700	150	8	0.083	1.88	1.31	1.77	0.39	5.38	3.40	2.51	11.29
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	88,200	150	8	0.055	1.25	0.87	1.84	0.26	4.24	3.52	1.67	9.43
NT Plant&Pre-Folding	12R-20	MFWD 190	72,100	150	8	0.105	2.38	1.86	2.85	0.57	7.68	5.47	3.60	16.75
NT Plant&Pre-Folding	12R-30	MFWD 190	77,500	150	8	0.070	1.59	1.24	2.04	0.38	5.26	3.91	2.40	11.58
NT Plant&Pre-Folding	12R-38	MFWD 190	88,200	150	8	0.055	1.25	0.97	1.84	0.30	4.37	3.52	1.89	9.79
NT Plant&Pre-Folding	16R-30	MFWD 190	114,000	150	8	0.052	1.19	0.93	2.26	0.28	4.67	4.32	1.80	10.79
NT Plant&Pre-Folding	23R-15	MFWD 190	150,000	150	8	0.073	1.65	1.29	4.13	0.39	7.47	7.90	2.50	17.88
NT Plant&Pre-Folding	24R-15	MFWD 225	153,000	150	8	0.070	1.59	1.46	4.04	0.46	7.56	7.73	2.91	18.22
NT Plant&Pre-Folding	24R-20	MFWD 190	162,000	150	8	0.052	1.19	0.93	3.21	0.28	5.62	6.14	1.80	13.56
NT Plant&Pre-Folding	24R-30	MFWD 190	188,000	150	8	0.035	0.79	0.62	2.48	0.19	4.09	4.75	1.20	10.04

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2018 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
NT Plant&Pre-Folding	31R-15	MFWD 225	181,000	150	8	0.054	1.23	1.13	3.71	0.35	6.44	7.09	2.25	15.79
NT Plant&Pre-Folding	32R-15	MFWD 225	197,000	150	8	0.052	1.19	1.10	3.90	0.34	6.54	7.47	2.18	16.20
NT Plant&Pre-Rigid	4R-30	2WD 130	28,200	150	8	0.211	4.77	2.54	2.23	0.68	10.24	4.27	4.09	18.61
NT Plant&Pre-Rigid	4R-38	2WD 130	30,800	150	8	0.166	3.75	2.00	1.92	0.53	8.22	3.68	3.22	15.13
NT Plant&Pre-Rigid	6R-30	MFWD 150	39,300	150	8	0.141	3.18	1.95	2.07	0.57	7.79	3.97	3.47	15.24
NT Plant&Pre-Rigid	6R-38	MFWD 150	36,200	150	8	0.111	2.51	1.54	1.51	0.45	6.02	2.89	2.74	11.66
NT Plant&Pre-Rigid	8R-30	MFWD 170	46,900	150	8	0.105	2.38	1.66	1.86	0.50	6.41	3.55	3.18	13.16
NT Plant&Pre-Rigid	8R-38	MFWD 170	43,200	150	8	0.083	1.88	1.31	1.35	0.39	4.95	2.59	2.51	10.06
NT Plant&Pre-Rigid	10R-30	MFWD 190	51,900	150	8	0.084	1.90	1.48	1.64	0.45	5.50	3.15	2.88	11.53
NT Plant&Pre-Rigid	11R-15	MFWD 170	56,000	150	8	0.143	3.24	2.26	3.02	0.68	9.22	5.78	4.33	19.33
NT Plant&Pre-Rigid	11R-20	MFWD 170	51,400	150	8	0.115	2.60	1.82	2.22	0.55	7.21	4.26	3.48	14.95
NT Plant&Pre-Rigid	12R-20	MFWD 190	57,700	150	8	0.105	2.38	1.86	2.28	0.57	7.10	4.37	3.60	15.08
NT Plant&Pre-Rigid	12R-30	MFWD 190	72,400	150	8	0.070	1.59	1.24	1.91	0.38	5.12	3.66	2.40	11.19
NT Plant&Pre-Rigid	13R-18/20	MFWD 225	63,000	150	8	0.097	2.20	2.03	2.30	0.63	7.17	4.40	4.02	15.60
NT Plant&Pre-Rigid	15R-15	MFWD 190	71,300	150	8	0.113	2.55	1.99	3.02	0.61	8.18	5.78	3.85	17.81
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	162,000	150	8	0.055	1.25	1.16	3.38	0.36	6.16	6.46	2.30	14.93
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	117,000	150	8	0.083	1.88	1.74	3.66	0.54	7.84	7.01	3.45	18.31
NT Plant-Folding	8R-38	MFWD 170	51,300	150	8	0.077	1.75	1.22	1.49	0.37	4.84	2.85	2.33	10.03
NT Plant-Folding	8R-38 2x1	MFWD 170	81,200	150	8	0.051	1.16	0.81	1.57	0.24	3.80	3.01	1.55	8.36
NT Plant-Folding	12R-20	MFWD 190	66,700	150	8	0.098	2.21	1.72	2.45	0.53	6.93	4.69	3.34	14.97
NT Plant-Folding	12R-30	MFWD 190	70,400	150	8	0.065	1.47	1.15	1.72	0.35	4.71	3.30	2.22	10.24
NT Plant-Folding	12R-38	MFWD 190	81,200	150	8	0.051	1.16	0.90	1.57	0.27	3.92	3.01	1.75	8.70
NT Plant-Folding	16R-30	MFWD 190	107,000	150	8	0.049	1.10	0.86	1.97	0.26	4.20	3.76	1.67	9.65
NT Plant-Folding	23R-15	MFWD 190	143,000	150	8	0.068	1.53	1.20	3.65	0.36	6.76	6.99	2.32	16.08
NT Plant-Folding	24R-15	MFWD 225	146,000	150	8	0.065	1.47	1.36	3.58	0.42	6.85	6.85	2.70	16.42
NT Plant-Folding	24R-20	MFWD 190	155,000	150	8	0.049	1.10	0.86	2.85	0.26	5.09	5.46	1.67	12.22
NT Plant-Folding	24R-30	MFWD 190	171,000	150	8	0.032	0.73	0.57	2.09	0.17	3.59	4.01	1.11	8.72
NT Plant-Folding	31R-15	MFWD 225	163,000	150	8	0.050	1.14	1.05	3.10	0.33	5.63	5.93	2.09	13.67
NT Plant-Folding	32R-15	MFWD 225	180,000	150	8	0.049	1.10	1.02	3.31	0.32	5.76	6.34	2.02	14.13
NT Plant-Rigid	4R-30	2WD 130	22,900	150	8	0.196	4.43	2.36	1.68	0.63	9.11	3.22	3.80	16.14
NT Plant-Rigid	4R-38	2WD 130	25,500	150	8	0.154	3.49	1.86	1.47	0.49	7.33	2.82	2.99	13.15
NT Plant-Rigid	6R-30	MFWD 150	34,000	150	8	0.130	2.95	1.81	1.66	0.53	6.98	3.19	3.22	13.40
NT Plant-Rigid	6R-38	MFWD 150	30,900	150	8	0.103	2.33	1.43	1.19	0.42	5.39	2.29	2.54	10.22
NT Plant-Rigid	8R-30	MFWD 170	41,600	150	8	0.098	2.21	1.54	1.53	0.46	5.76	2.93	2.95	11.65
NT Plant-Rigid	8R-38	MFWD 170	37,800	150	8	0.077	1.75	1.22	1.10	0.37	4.44	2.10	2.33	8.88
NT Plant-Rigid	10R-30	MFWD 190	46,500	150	8	0.078	1.77	1.38	1.37	0.42	4.95	2.62	2.67	10.24
NT Plant-Rigid	11R-15	MFWD 170	50,700	150	8	0.133	3.01	2.10	2.54	0.63	8.29	4.85	4.02	17.18
NT Plant-Rigid	11R-20	MFWD 170	46,100	150	8	0.107	2.42	1.69	1.85	0.51	6.48	3.54	3.23	13.26
NT Plant-Rigid	12R-20	MFWD 190	52,300	150	8	0.098	2.21	1.72	1.92	0.53	6.40	3.68	3.34	13.43
NT Plant-Rigid	12R-30	MFWD 190	65,400	150	8	0.065	1.47	1.15	1.60	0.35	4.59	3.07	2.22	9.89
NT Plant-Rigid	13R-18/20	MFWD 225	57,600	150	8	0.090	2.05	1.89	1.96	0.59	6.50	3.75	3.75	14.02
NT Plant-Rigid	15R-15	MFWD 190	64,300	150	8	0.105	2.37	1.84	2.53	0.56	7.32	4.84	3.57	15.74
NT Plant-TwinRow	12R-30/40	MFWD 225	144,000	150	8	0.051	1.16	1.07	2.79	0.33	5.37	5.33	2.13	12.84
NT Plant-TwinRow	8R-30/40	MFWD 225	112,000	150	8	0.077	1.75	1.61	3.26	0.50	7.14	6.23	3.20	16.58
Peanut Cond.& Lifter	6-Row	MFWD 190	13,300	300	20	0.100	1.35	1.76	0.22	0.54	3.87	0.32	3.40	7.60
Peanut Conditioner	6-Row	MFWD 190	15,300	300	20	0.100	1.35	1.76	0.30	0.54	3.95	0.33	3.40	7.69
Peanut Dig/Invertor	4R-30	MFWD 190	29,800	300	15	0.235	3.18	4.15	1.74	1.27	10.36	2.09	8.02	20.48
Peanut Dig/Invertor	4R-38	MFWD 190	29,800	300	15	0.186	2.51	3.27	1.38	1.00	8.18	1.65	6.33	16.17
Peanut Dig/Invertor	6R-38	MFWD 190	43,400	300	15	0.124	1.67	2.18	0.94	0.67	5.47	1.60	4.22	11.30
Peanut Dump Cart	6-Row	MFWD 190	48,500	300	20	0.310	4.18	5.45	0.87	1.67	12.19	3.56	10.55	26.31
Peanut Harvester	4R-30	MFWD 225	137,000	300	20	0.849	11.48	17.71	6.59	5.57	41.37	25.27	35.12	101.78
Peanut Harvester	4R-38	MFWD 225	137,000	300	20	0.934	12.62	19.48	7.25	6.13	45.49	29.08	38.62	113.20
Peanut Harvester	6R-38	MFWD 225	151,000	300	20	0.625	8.44	13.02	4.56	4.10	30.13	21.43	25.82	77.40
Peanut Lifter	6-Row	MFWD 225	6,500	300	20	0.100	1.35	2.08	0.13	0.65	4.22	0.14	4.13	8.49
Peanut Plt&Pre Fold.	12R-38	MFWD 190	81,200	150	8	0.080	1.81	1.41	2.44	0.43	6.11	4.68	2.73	13.53
Peanut Plt&Pre Rigid	8R-30	MFWD 190	42,300	150	8	0.152	3.44	2.68	2.42	0.82	9.38	4.63	5.20	19.22
Peanut Plt&Pre Rigid	8R-38	MFWD 190	38,500	150	8	0.120	2.72	2.12	1.74	0.65	7.24	3.33	4.11	14.69
Pipe Spool 160ac	1/4m roll	2WD 130	3,600	15	12	0.003	0.09	0.03	0.00	0.01	0.15	0.07	0.06	0.28
Pipe Trailer 1m/160a	30'	2WD 130	1,380	100	15	0.003	0.18	0.04	0.00	0.01	0.24	0.00	0.07	0.32
Plant & Pre-Folding	8R-38	MFWD 170	52,000	150	8	0.080	1.81	1.26	1.56	0.38	5.02	2.99	2.41	10.43
Plant & Pre-Folding	8R-38 2x1	MFWD 170	81,200	150	8	0.053	1.20	0.84	1.62	0.25	3.93	3.11	1.60	8.65
Plant & Pre-Folding	12R-20	MFWD 190	65,100	150	8	0.101	2.29	1.78	2.47	0.54	7.10	4.74	3.45	15.30
Plant & Pre-Folding	12R-30	MFWD 190	70,500	150	8	0.067	1.52	1.19	1.78	0.36	4.87	3.42	2.30	10.60
Plant & Pre-Folding	12R-38	MFWD 190	81,200	150	8	0.053	1.20	0.94	1.62	0.28	4.06	3.11	1.81	8.99
Plant & Pre-Folding	16R-30	MFWD 190	105,000	150	8	0.050	1.14	0.89	1.99	0.27	4.31	3.82	1.72	9.86
Plant & Pre-Folding	23R-15	MFWD 190	137,000	150	8	0.070	1.59	1.24	3.62	0.38	6.83	6.92	2.40	16.16
Plant & Pre-Folding	24R-15	MFWD 225	139,000	150	8	0.067	1.52	1.41	3.52	0.44	6.91	6.74	2.79	16.45
Plant & Pre-Folding	24R-20	MFWD 190	148,000	150	8	0.050	1.14	0.89	2.81	0.27	5.13	5.38	1.72	12.25
Plant & Pre-Folding	24R-30	MFWD 190	174,000	150	8	0.033	0.76	0.59	2.20	0.18	3.75	4.22	1.15	9.12
Plant & Pre-Folding	31R-15	MFWD 225	163,000	150	8	0.052	1.18	1.09	3.20	0.34	5.82	6.13	2.16	14.13
Plant & Pre-Folding	32R-15	MFWD 225	179,000	150	8	0.050	1.14	1.05	3.40	0.33	5.94	6.51	2.09	14.56
Plant & Pre-Rigid	4R-30	2WD 130	25,900	150	8	0.203	4.58	2.44	1.97	0.65	9.65	3.77	3.93	17.36
Plant & Pre-Rigid	4R-38	2WD 130	28,500	150	8	0.159	3.60	1.92	1.70	0.51	7.75	3.26	3.09	14.12
Plant & Pre-Rigid	6R-30	MFWD 150	25,900	150	8	0.135	3.05	1.88	1.31	0.55	6.80	2.51	3.33	12.65
Plant & Pre-Rigid	6R-38	MFWD 150	32,700	150	8	0.106	2.41	1.48	1.31	0.43	5.64	2.50	2.63	10.78
Plant & Pre-Rigid	8R-30	MFWD 170	42,300	150	8	0.101	2.29	1.59	1.61	0.48	5.98	3.08	3.05	12.12

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2018 (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-----							
Plant & Pre-Rigid	8R-38	MFWD 170	38,500	150	8	0.080	1.81	1.26	1.15	0.38	4.61	2.21	2.41	9.25
Plant & Pre-Rigid	10R-30	MFWD 190	46,000	150	8	0.081	1.83	1.42	1.40	0.43	5.10	2.68	2.76	10.54
Plant & Pre-Rigid	11R-15	MFWD 170	49,600	150	8	0.148	3.34	2.33	2.75	0.70	9.14	5.27	4.46	18.88
Plant & Pre-Rigid	11R-20	MFWD 170	45,000	150	8	0.110	2.50	1.74	1.87	0.53	6.65	3.58	3.34	13.57
Plant & Pre-Rigid	12R-20	MFWD 190	50,700	150	8	0.101	2.29	1.78	1.93	0.54	6.55	3.69	3.45	13.70
Plant & Pre-Rigid	12R-30	MFWD 190	65,400	150	8	0.067	1.52	1.19	1.66	0.36	4.74	3.17	2.30	10.22
Plant & Pre-Rigid	13R-18/20	MFWD 225	55,400	150	8	0.093	2.11	1.95	1.94	0.61	6.62	3.71	3.86	14.20
Plant & Pre-Rigid	15R-15	MFWD 190	62,600	150	8	0.108	2.45	1.91	2.54	0.58	7.49	4.87	3.69	16.07
Plant & Pre-TwinRow	12R-30/40	MFWD 225	148,000	150	8	0.053	1.20	1.11	2.96	0.35	5.63	5.67	2.20	13.51
Plant & Pre-TwinRow	8R-30/40	MFWD 225	108,000	150	8	0.080	1.81	1.67	3.25	0.52	7.26	6.21	3.31	16.79
Plant - Folding	8R-38	MFWD 170	46,600	150	8	0.074	1.68	1.17	1.30	0.35	4.51	2.49	2.24	9.25
Plant - Folding	8R-38 2x1	MFWD 170	74,200	150	8	0.049	1.11	0.78	1.38	0.23	3.51	2.64	1.49	7.65
Plant - Folding	12R-20	MFWD 190	59,700	150	8	0.094	2.12	1.65	2.11	0.50	6.40	4.03	3.20	13.65
Plant - Folding	12R-30	MFWD 190	63,400	150	8	0.062	1.41	1.10	1.49	0.33	4.35	2.85	2.13	9.35
Plant - Folding	12R-38	MFWD 190	74,200	150	8	0.049	1.11	0.87	1.38	0.26	3.64	2.64	1.68	7.97
Plant - Folding	16R-30	MFWD 190	97,900	150	8	0.047	1.06	0.82	1.73	0.25	3.87	3.31	1.60	8.79
Plant - Folding	23R-15	MFWD 190	130,000	150	8	0.065	1.47	1.15	3.19	0.35	6.17	6.10	2.22	14.51
Plant - Folding	24R-15	MFWD 225	132,000	150	8	0.062	1.41	1.31	3.11	0.41	6.25	5.95	2.59	14.80
Plant - Folding	24R-20	MFWD 190	141,000	150	8	0.047	1.06	0.82	2.49	0.25	4.64	4.76	1.60	11.01
Plant - Folding	24R-30	MFWD 190	156,000	150	8	0.031	0.70	0.55	1.83	0.16	3.27	3.51	1.06	7.85
Plant - Folding	31R-15	MFWD 225	145,000	150	8	0.048	1.09	1.01	2.64	0.31	5.08	5.06	2.01	12.16
Plant - Folding	32R-15	MFWD 225	161,000	150	8	0.047	1.06	0.98	2.84	0.30	5.20	5.44	1.94	12.59
Plant - Rigid	4R-30	2WD 130	20,500	150	8	0.188	4.25	2.27	1.44	0.60	8.58	2.77	3.65	15.00
Plant - Rigid	4R-38	2WD 130	23,100	150	8	0.148	3.35	1.78	1.28	0.47	6.90	2.46	2.87	12.24
Plant - Rigid	6R-30	MFWD 150	30,500	150	8	0.125	2.83	1.74	1.43	0.51	6.53	2.75	3.09	12.38
Plant - Rigid	6R-38	MFWD 150	27,400	150	8	0.099	2.24	1.37	1.01	0.40	5.04	1.95	2.44	9.44
Plant - Rigid	8R-30	MFWD 170	36,900	150	8	0.094	2.12	1.48	1.30	0.45	5.36	2.49	2.83	10.70
Plant - Rigid	8R-38	MFWD 170	33,100	150	8	0.074	1.68	1.17	0.92	0.35	4.13	1.76	2.24	8.15
Plant - Rigid	10R-30	MFWD 190	40,700	150	8	0.075	1.70	1.32	1.15	0.40	4.58	2.20	2.56	9.35
Plant - Rigid	11R-15	MFWD 170	44,200	150	8	0.137	3.10	2.16	2.28	0.65	8.21	4.36	4.14	16.72
Plant - Rigid	11R-20	MFWD 170	39,600	150	8	0.103	2.32	1.62	1.53	0.49	5.97	2.92	3.10	12.00
Plant - Rigid	12R-20	MFWD 190	45,300	150	8	0.094	2.12	1.65	1.60	0.50	5.89	3.06	3.20	12.17
Plant - Rigid	12R-30	MFWD 190	58,300	150	8	0.062	1.41	1.10	1.37	0.33	4.23	2.62	2.13	9.00
Plant - Rigid	13R-18/20	MFWD 225	50,000	150	8	0.086	1.96	1.81	1.62	0.57	5.97	3.11	3.59	12.68
Plant - Rigid	15R-15	2WD 150	55,500	150	8	0.094	2.12	1.31	1.96	0.31	5.71	3.75	1.91	11.38
Plant - TwinRow	12R-30/40	MFWD 225	130,000	150	8	0.049	1.11	1.03	2.41	0.32	4.89	4.62	2.05	11.57
Plant - TwinRow	8R-30/40	MFWD 225	102,000	150	8	0.074	1.68	1.55	2.85	0.48	6.57	5.45	3.07	15.10
Roller/Cultipacker	12'	2WD 130	6,910	300	12	0.124	1.68	1.49	0.20	0.40	3.78	0.27	2.41	6.47
Roller/Cultipacker	20'	MFWD 150	17,000	300	12	0.074	1.00	1.03	0.29	0.30	2.65	0.41	1.83	4.90
Roller/Cultipacker	30'	MFWD 170	19,100	300	12	0.049	0.67	0.78	0.22	0.23	1.91	0.30	1.49	3.72
Roller/Cultipacker	38'	MFWD 225	21,300	300	12	0.039	0.53	0.81	0.19	0.25	1.80	0.27	1.62	3.70
Roller/Stubble	20'	2WD 50	13,500	300	12	0.074	1.00	0.34	0.23	0.04	1.64	0.32	0.29	2.26
Roller/Stubble	32'	MFWD 225	22,800	300	12	0.046	0.63	0.97	0.25	0.30	2.16	0.34	1.92	4.43
Rotary Cutter	7'	MFWD 130	4,760	185	10	0.168	2.27	2.02	0.64	0.59	5.54	0.45	3.57	9.58
Rotary Cutter	12'	2WD 150	11,600	185	10	0.098	1.32	1.36	0.92	0.33	3.94	0.65	1.99	6.59
Rotary Cutter-Flex	15'	MFWD 150	19,700	185	10	0.078	1.06	1.09	1.25	0.32	3.73	0.88	1.93	6.54
Rotary Cutter-Flex	20'	MFWD 150	27,700	185	10	0.058	0.79	0.81	1.32	0.24	3.17	0.93	1.45	5.56
Row Cond & Inc-Fold.	26'	MFWD 190	24,700	100	10	0.063	1.14	1.11	0.39	0.34	2.99	1.65	2.16	6.81
Row Cond & Inc-Fold.	38'	MFWD 225	33,200	100	10	0.043	0.78	0.90	0.36	0.28	2.33	1.52	1.79	5.65
Row Cond & Inc-Rigid	13'	2WD 130	14,600	100	10	0.126	2.28	1.52	0.46	0.40	4.69	1.95	2.45	9.10
Row Cond & Inc-Rigid	21'	2WD 170	18,400	100	10	0.078	1.41	1.23	0.36	0.29	3.30	1.52	1.83	6.67
Row Cond & Inc-Rigid	26'	MFWD 190	20,700	100	10	0.026	0.48	0.46	0.13	0.14	1.23	0.58	0.90	2.71
Row Cond Folding	26'	MFWD 225	19,300	100	10	0.059	0.80	1.24	0.28	0.39	2.73	1.21	2.46	6.41
Row Cond Folding	38'	MFWD 225	26,100	100	10	0.040	0.55	0.85	0.26	0.26	1.93	1.12	1.68	4.75
Row Cond Rigid	13'	2WD 130	9,260	100	10	0.119	1.61	1.43	0.27	0.38	3.71	1.16	2.31	7.19
Row Cond Rigid	21'	2WD 170	13,000	100	10	0.073	0.99	1.16	0.24	0.27	2.67	1.01	1.73	5.42
Row Cond Rigid	26'	MFWD 190	15,400	100	10	0.059	0.80	1.05	0.22	0.32	2.41	0.97	2.03	5.41
Row Cond./Roll-Fold.	26'	MFWD 190	26,800	160	10	0.072	0.97	1.26	0.48	0.38	3.11	1.27	2.45	6.84
Row Cond./Roll-Fold.	30'	MFWD 190	35,600	160	10	0.062	0.84	1.10	0.55	0.33	2.83	1.46	2.12	6.43
Row Cond./Roll-Fold.	40'	MFWD 225	29,400	160	10	0.046	0.63	0.97	0.34	0.30	2.26	0.91	1.93	5.11
Row Cond./Roll-Rigid	21'	MFWD 190	23,000	160	10	0.089	1.20	1.57	0.51	0.48	3.77	1.35	3.03	8.17
Row Cond./Roll-Rigid	26'	MFWD 190	25,800	160	10	0.072	0.97	1.26	0.46	0.38	3.09	1.22	2.45	6.78
Spin Spreader	5 ton	MFWD 190	12,400	100	8	0.042	0.94	0.74	0.29	0.22	2.21	0.58	1.43	4.23
Spray (ATV Ropewick)	75"	800 CC	700	200	8	0.260	4.69	0.38	0.08	0.40	5.57	0.10	1.60	7.27
Spray (ATV)	12'/17'	800 CC	2,280	200	8	0.112	2.03	0.16	0.12	0.17	2.49	0.14	0.69	3.33
Spray (ATV)	20'	800 CC	1,700	200	8	0.084	1.52	0.12	0.06	0.13	1.85	0.08	0.52	2.45
Spray (Band)	27' Fold	MFWD 170	5,350	200	8	0.062	1.13	0.98	0.15	0.29	2.57	0.18	1.88	4.65
Spray (Band)	40' Fold	MFWD 170	7,050	200	8	0.042	0.76	0.66	0.13	0.20	1.77	0.16	1.27	3.21
Spray (Band)	50' Fold	MFWD 170	11,200	200	8	0.033	0.61	0.53	0.17	0.16	1.48	0.21	1.01	2.71
Spray (Band)	53' Fold	MFWD 170	9,940	200	8	0.031	0.57	0.50	0.14	0.15	1.38	0.17	0.96	2.52
Spray (Band)	60' Fold	MFWD 170	17,800	200	8	0.028	0.50	0.44	0.23	0.13	1.32	0.28	0.84	2.45
Spray (Bcast/HB)	13' Rigid	MFWD 150	6,600	200	8	0.130	2.34	1.80	0.40	0.53	5.09	0.48	3.20	8.78
Spray (Bcast/HB)	20' Rigid	MFWD 150	7,700	200	8	0.084	1.52	1.17	0.30	0.34	3.35	0.36	2.08	5.80
Spray (Bcast/HB)	27' Fold	MFWD 170	11,000	200	8	0.062	1.13	0.98	0.32	0.29	2.74	0.38	1.88	5.01
Spray (Bcast/HB)	27' Rigid	MFWD 170	9,300	200	8	0.062	1.13	0.98	0.27	0.29	2.69	0.32	1.88	4.90
Spray (Bcast/HB)	30' Fold	MFWD 170	16,800	200	8	0.056	1.01	0.88	0.44	0.26	2.62	0.53	1.69	4.85

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2018 (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-----							
Spray (Bcast/HB)	40' Fold	MFWD 170	17,500	200	8	0.042	0.76	0.66	0.34	0.20	1.97	0.41	1.27	3.67
Spray (Broadcast)	27'	MFWD 170	5,350	200	8	0.062	1.13	0.98	0.15	0.29	2.57	0.18	1.88	4.65
Spray (Broadcast)	40'	MFWD 170	7,050	200	8	0.042	0.76	0.66	0.13	0.20	1.77	0.16	1.27	3.21
Spray (Broadcast)	50'	MFWD 170	11,200	200	8	0.033	0.61	0.53	0.17	0.16	1.48	0.21	1.01	2.71
Spray (Spot)	53'	MFWD 170	9,940	200	8	0.031	0.57	0.50	0.14	0.15	1.38	0.17	0.96	2.52
Spray (Spot)	60'	MFWD 225	17,800	200	8	0.028	0.50	0.58	0.23	0.18	1.51	0.28	1.16	2.96
Stalk Shredder	14'	MFWD 150	12,100	200	10	0.117	1.59	1.63	1.24	0.48	4.96	0.75	2.90	8.61
Stalk Shredder Flex	20'	MFWD 150	27,700	200	10	0.082	1.11	1.14	1.99	0.33	4.59	1.20	2.03	7.83
Stalk Shredder-Flail	12'	MFWD 150	21,800	200	10	0.137	1.85	1.91	2.62	0.56	6.95	1.58	3.38	11.92
Stalk Shredder-Flail	15'	MFWD 150	22,100	200	10	0.110	1.48	1.52	2.12	0.45	5.59	1.28	2.70	9.58
Stalk Shredder-Flail	18'	MFWD 150	27,100	200	10	0.091	1.23	1.27	2.17	0.37	5.06	1.31	2.25	8.63
Stalk Shredder-Flail	20'	MFWD 150	27,500	200	10	0.082	1.11	1.14	1.98	0.33	4.58	1.19	2.03	7.81
Stalk Shredder-Flail	25'	MFWD 150	36,700	200	10	0.066	0.89	0.91	2.11	0.27	4.19	1.27	1.62	7.10
Strip Till	8R-38	MFWD 225	37,700	150	10	0.061	0.83	1.28	1.00	0.40	3.52	1.63	2.54	7.71
Strip Till	12R-30	MFWD 225	59,700	150	10	0.061	0.83	1.28	1.59	0.40	4.11	2.59	2.54	9.25
Strip Till	12R-40	MFWD 225	64,800	150	10	0.046	0.62	0.96	1.29	0.30	3.18	2.10	1.91	7.20
Subsoiler	3 shank	MFWD 190	4,550	100	15	0.204	2.76	3.59	0.30	1.10	7.77	0.76	6.95	15.49
Subsoiler	4 shank	MFWD 225	8,900	100	15	0.153	2.07	3.20	0.45	1.00	6.74	1.12	6.34	14.21
Subsoiler	5 shank	MFWD 225	12,100	100	15	0.122	1.65	2.55	0.49	0.80	5.50	1.22	5.05	11.77
Subsoiler low-till	4 shank	MFWD 225	10,800	100	15	0.153	2.07	3.20	0.55	1.00	6.83	1.36	6.34	14.55
Subsoiler low-till	6 shank	MFWD 225	17,100	100	15	0.102	1.38	2.12	0.58	0.67	4.76	1.44	4.22	10.42
Subsoiler low-till	8 shank	MFWD 225	17,300	100	15	0.076	1.03	1.59	0.44	0.50	3.57	1.09	3.16	7.82

Notes:

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

Total Direct: Does not include interest on operating capital.

HB = Hooded Boom, HD = Hooded Direct

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2018

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS					
Agri-Dex	pt	2.38	Captan 50 WP	lb	4.93
Class Act NG	pt	2.38	Cotton Seed Trt.	acre	20.00
Crop Oil Conc. (Pet.)	pt	2.74	CruiserMaxx	oz	4.25
Crop Oil Conc. (Veg.)	pt	2.61	Dithane F-45	qt	7.81
Dyne-A-Pak	pt	4.73	Enable 2F	oz	1.97
Herbimax	pt	1.88	Headline EC	oz	2.63
Induce	pt	3.31	Manzate 75 DF	lb	4.86
MSO	pt	2.61	Moncut 70 DF	lb	32.81
Penetrator Plus	pt	3.50	Propimax EC	pt	12.64
Prime Oil	pt	2.35	Prosaro	oz	5.57
Surfactant	pt	3.28	Provost	oz	2.43
CLEANING					
Cleaning Peanuts	ton	18.00	Quadris	oz	2.14
CROP CONSULTANT					
Corn Consultant	acre	6.00	Quadris Top	oz	2.55
Cotton Consultant	acre	8.00	Quadris Top SBX	oz	2.75
Peanut Consultant	acre	9.25	Quilt	pt	18.55
Rice Consultant	acre	8.00	Quilt XCEL	pt	25.43
Sorghum Consultant	acre	6.00	Ridomil Gold	oz	6.42
Soybeans Consultant	acre	6.50	Rovral 4F	pt	14.90
Wheat Consultant	acre	5.50	Stratego	pt	17.50
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	Stratego YLD	oz	4.28
App Fert by Air (Mi)	appl	7.00	Tilt 3.6 EC	oz	0.75
Custom Apply Fert	acre	7.50	Tilt/ Bravo SE	oz	0.41
CUSTOM LIME					
Lime (Spread)	ton	46.00	Uniform	oz	4.63
CUSTOM PLANT					
Custom Plant	acre	7.50	GINNING		
Custom Plant Air	cwt	7.00	Gin & Haul	lb	0.11
CUSTOM SPRAY					
App by Air (3 gal)	appl	5.00	GROWTH REGULATORS		
App by Air (5 gal)	appl	6.50	Mepex	oz	0.08
App by Air (10 gal)	appl	9.00	Mepichlor 4.2%	oz	0.07
Custom Spray Ground	acre	7.00	Mepiquat	oz	0.07
DRYING					
Dry Corn	bu	0.19	Pentia	pt	6.46
Dry Grain Sorghum	cwt	0.25	Stance	oz	1.25
Dry Peanuts	ton	24.00	HARVEST AIDS		
Dry Rice	bu	0.40	Adios	oz	1.29
ERADICATION FEE					
Eradication	acre	1.00	Aim 2EC	oz	5.65
FERTILIZERS					
Agrotain Ultra	pt	9.00	Def/Folex	pt	10.54
Amm Sulfate (21% N)	cwt	13.43	Defol 5	gal	5.39
Boron Plus	pt	3.69	Ethephon 6E	pt	2.88
DAP	cwt	21.52	Finish 6	pt	9.61
Fert 10-34-0	cwt	22.25	Folex 6EC	pt	10.54
Fert 10-34-0	gal	2.59	Freefall SC	oz	1.50
Fert 11-37-0	cwt	23.05	Ginstar EC	pt	26.44
Fert 33-0-0-12S	cwt	18.00	Gramoxone SL	oz	0.15
Fert 41-0-0-4	cwt	13.50	Sharpen	oz	6.45
Lime	ton	46.00	Sodium Chlorate 5L	gal	5.39
NBPT	pt	9.00	SuperBoll	oz	0.19
Phosphorus (46% P2O5)	cwt	18.75	Thidiazuron 4lb	oz	1.50
Potash (60% K2O)	cwt	18.98	Tribufos 6lb	pt	10.54
Sulfur Plus	pt	2.62	HAULING		
UAN (32% N)	cwt	10.50	Haul Corn	bu	0.23
UAN (32%)	gal	1.17	Haul Peanuts	ton	14.50
UAN + Sulfur (28%)	cwt	11.75	Haul Rice	bu	0.35
UAN + Sulfur (28%)	gal	1.31	Haul Sorghum	bu	0.25
Urea, Solid (46% N)	cwt	14.19	Haul Soybeans	bu	0.27
Zinc Plus	pt	2.99	Haul Wheat	bu	0.26
FUNGICIDES					
Aframe	oz	1.96	HERBICIDES		
Alfa Guard	lb	1.48	2,4-D Amine 4	pt	2.40
Allegiance Flowable	pt	48.89	AAtrex 4L	pt	2.12
Apron Maxx RTA	oz	0.84	AAtrex NINE-O	lb	3.96
Artisan	oz	1.00	Accent Q	oz	21.51
Bravo Weather Stick	pt	6.56	Aim	oz	5.65
			Assure II	oz	0.74
			Atrazine 4L	pt	2.12
			Axial XL	oz	1.17
			Axiom	oz	1.92
			Banvel	pt	13.43
			Basagran	pt	12.31
			Beyond	oz	4.48
			Bicep II Magnum	qt	11.01
			Bicep Lite Magnum	pt	7.27

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2018 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Bolero	pt	7.73	Regiment	oz	44.90
Boundary	pt	11.20	Remedy Ultra	pt	9.60
Butyrac 175 (2,4-D)	pt	3.29	RiceBeaux	pt	5.86
Butyrac 200 (2,4-DB)	pt	4.34	Riceshot	pt	3.86
Cadre	oz	3.54	Ricestar HT	pt	24.35
Canopy	oz	2.74	Roundup Power Max	oz	0.17
Caparol	pt	4.60	Roundup PowerMax	pt	2.72
Capreno	oz	7.13	Roundup WeatherMax	oz	0.26
Clarity	pt	11.55	Roundup WeatherMax	pt	4.46
Classic	oz	17.18	Scepter 70 DG	oz	4.48
Clearpath	lb	61.26	Select Max	pt	12.64
Cobra	oz	1.72	Sequence	pt	5.95
Command 3ME	pt	19.93	Sharpen	oz	6.45
Corvus	oz	7.29	Simazine	pt	2.54
Cotoran	pt	6.42	Stalwart	pt	4.52
Cotton Pro	pt	3.52	Stam 80 EDF	lb	9.61
Credit Extra	pt	2.17	Stam M4	qt	7.80
Dicamba	pt	12.00	Staple LX	oz	7.63
Direx	pt	3.99	Steadfast	oz	12.26
Diuron	pt	3.90	Storm	pt	11.41
Diuron 80 DF	lb	5.09	Strada Pro	oz	7.27
Diuron 80%	lb	5.09	Strongarm	oz	56.42
Dual II Magnum	pt	14.83	Superwham	qt	9.18
Dual Magnum	pt	13.80	Surpass EC	qt	26.36
Duet	pt	5.35	Synchrony XP	oz	12.71
Envoke	oz	102.89	Touchdown Total	qt	5.16
Expert	pt	4.39	Treflan	pt	3.52
Facet L	pt	15.25	Tricor DF	lb	15.82
Fierce	oz	7.54	Trifluralin	pt	3.52
Finesse	oz	16.06	Ultra Blazer	pt	10.31
Flexstar	pt	8.41	Valor SX	oz	4.57
Fusilade DX	oz	1.00	Valor XLT	oz	5.00
Glyphosate 3lbs a.e	pt	2.25	Zidua	oz	9.05
Glyphosate 3lbs a.e	oz	0.14	INOCULANT		
Glystar Plus	pt	2.17	Optimize	oz	2.14
Goal 2XL	pt	9.89	Optimize LIFT	oz	0.59
Gramoxone SL 2.0	oz	0.15	Vault	oz	1.73
Grasp Xtra	oz	1.53	INSECTICIDES		
Halex GT	pt	7.80	Abamectin .15EC	oz	0.96
Halomax	oz	21.44	Acephate 90%	lb	7.43
Harmony Extra SG	oz	13.79	Acephate 90SP	lb	7.43
Harness XTRA	pt	9.45	Acramite-4SC	oz	1.71
Impact	oz	24.90	Admire Pro	oz	1.70
Leadoff	oz	5.82	Asana .66 XL	oz	0.58
Lexar	pt	7.96	Baythroid XL	oz	2.65
Liberty 280	oz	0.60	Belt	oz	7.90
Linex	pt	9.28	Bidrin 8EC	oz	1.17
Londax	oz	18.08	Bifenthrin	oz	0.78
Lorox	lb	24.12	Bifenture 2EC	pt	12.36
Metribuzin 75	lb	15.87	Brigade EC	pt	11.85
MSMA 6.6	pt	2.90	Capture LFR	oz	2.28
MSMA6 Plus	pt	3.63	Carbaryl 4L	pt	5.85
Newpath	oz	3.83	Carbine 50WG	oz	5.93
Osprey	oz	3.61	Centric 40WG	oz	5.38
Outlook	pt	17.47	Comite 1l	pt	8.45
Paraquat	oz	0.28	Confirm 2F	oz	2.06
Parazone 3SL	oz	0.28	Diamond .83EC	pt	22.36
Permit	oz	22.43	Diamond .83EC	oz	1.40
Poast	pt	12.77	Dimethoate 4E	pt	5.31
Prefix	pt	6.53	Dimilin 2L	oz	1.45
Prowl 3.3 EC	pt	6.07	Dipel DF	lb	13.13
Pursuit	oz	3.51	Dipel ES	pt	4.89
Quinstar 4L	oz	1.60	Endigo ZC	pt	24.86
Raptor	oz	4.38	Force 3G	lb	6.03
RealmQ	oz	4.97	Gaucha 600	oz	2.35
RebelEx	oz	2.67	Hero	pt	25.77
Reflex	pt	6.52	Imidacloprid 4F	oz	0.78

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2018 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Imidan 70 WSB	oz	0.67	Peanut Seed	lb	0.84
IncidentalPestTrt \$8	acre	8.00	Rice Clearfield	lb	0.95
IncidentalPestTrt\$22	acre	22.00	Rice Clr fld Hyb Trt	lb	5.55
IncidentalPestTrt\$30	acre	30.00	Rice Conv Hyb Trt	lb	5.66
Intrepid 2F	oz	2.00	Rice Seed CF(Levees)	lb	0.95
Intruder 70WSP	oz	9.71	Rice Seed CFH(Levee)	lb	1.78
Karate Z	oz	2.74	Rice Seed Conv.	lb	0.28
Lambda	oz	1.04	Rice Seed Cv(Levees)	lb	0.28
Lannate LV	pt	10.88	Rice Seed CvH(Levee)	lb	1.66
Leverage 2.7	oz	2.17	Rice Seed Trt/Insect	lbseed	0.23
Lorsban 15G	lb	2.35	Sorghum Concept	lb	2.57
Lorsban 4E	pt	6.10	Sorghum Concept+ Po	lb	3.92
Macho	oz	0.62	Soybean Seed LL	lb	1.28
Malathion 5E	pt	4.09	Soybean Seed RR2	lb	1.51
Malathion 8E	pt	5.50	Soybean Seed RR2X	lb	1.47
Mustang Max	oz	1.34	Wheat Seed Private	lb	0.29
Nuprid 4F	oz	0.88	SOIL TEST		
Oberon 4 SC	pt	59.84	Soil Test	acre	10.00
Pounce 25WP	lb	14.13	SURVEY & MARK LEVEES		
Prevathon	oz	1.32	Survey & Mark Levees	acre	4.50
Radiant	oz	6.82	Survey & Mark Levees	acre	4.50
Sevin 4F	pt	6.24	TECHNOLOGY FEE		
Sevin XLR Plus	qt	13.23	W3RF Cot Tech Fee	thous	1.45
Sivanto Prime	oz	2.55			
Transform WG	oz	8.18			
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25			
SEED/PLANTS					
Corn Seed BtRR	thous	3.63			
Corn Seed Conv.	thous	2.89			
Corn Seed RR2	thous	3.24			
Cotton Seed GLB2	thous	3.10			
Cotton Seed W3RF	thous	0.73			

Appendix Table 5. Estimated fuel prices
and interest rates, Mississippi, 2018

ITEM NAME	UNIT	PRICE
		dollars
FUEL TYPES		
Diesel Fuel	gal	1.80
Gasoline	gal	2.10
LP Gas	gal	1.65
INTEREST RATES		
Short-term	%	4.75
Intermediate-term	%	5.00

Appendix Table 6. Labor types, wage rates and unallocated labor
multipliers for crop enterprises, Mississippi, 2018

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	13.51
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, 2018

Crop	unit	Futures Contract Month	Futures Contract Price ^a	Basis ^b	Forward Contract Price ^c	Loan Rate ^d	Budget Price ^e
Corn	bu	Dec '18	3.96	-0.20	3.76	2.10	3.76
Cotton Lint	lb	Dec '18	0.6788	-0.0181	0.6607	0.52	0.6607
Cottonseed	lb						0.10 ^f
Grain Sorghum	bu				3.57	2.02	3.57
Peanuts	ton				385.00	355.00	385.00
Soybeans	bu	Nov '18	9.83	+0.07	9.90	5.21	9.90
Rice	bu	Nov '18	5.17	-0.27	4.90	2.96	4.90
Wheat	bu	Jul '18	4.88	-0.17	4.71	2.76	4.71

^a Average of the daily closing futures contract prices during the first 5 trading days in October 2017 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 2017 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 2017 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2017 Farm-stored Loan Rate for long grain rough rice. National 2018 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 2007-2016.

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, 2018

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		0.25	0.10	0.22		0.01	0.58	0.60	1.18
Survey & Mark Levees	acre	4.50					0.11	4.61		4.61
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.67	0.26	0.58		0.04	1.55	1.62	3.17
Butt Levees										
Blade-Box	6'-7'		0.32	0.11	0.27		0.02	0.72	0.61	1.33
IRRIGATE LABOR	hour				0.68		0.02	0.70		0.70
Install Gates										
IRRIGATE LABOR	hour				2.72		0.06	2.78		2.78
Apply Water										
IRRIGATE LABOR	hour				6.80		0.16	6.96		6.96
Apply Water										
IRRIGATE LABOR	hour				6.80		0.13	6.93		6.93
Apply Water										
IRRIGATE LABOR	hour				6.80		0.11	6.91		6.91
Apply Water										
IRRIGATE LABOR	hour				6.80		0.08	6.88		6.88
Remove Gates										
IRRIGATE LABOR	hour				0.91		0.01	0.92		0.92
Tear Down Levees										
Levee Splitter (1/80)	32"		0.52	0.21	0.45		0.01	1.19	1.25	2.44
Tear Down Levees										
Levee Splitter (1/80)	32"		0.20	0.08	0.17			0.45	0.47	0.92
Land Forming (\$113)	each								8.02	8.02
Levee Gates	each								0.66	0.66
Well & Pump, Flood	each			5.91			0.12	6.03	17.47	23.50
Engine, Rice CL, 75	each								16.85	16.85
May Irrigation	ac-in		8.80	1.43			0.24	10.47		10.47
June Irrigation	ac-in		13.20	2.15			0.30	15.65		15.65
July Irrigation	ac-in		13.20	2.15			0.24	15.59		15.59
August Irrigation	ac-in		13.20	2.15			0.18	15.53		15.53
TOTALS		4.50	50.36	14.55	33.65	0.00	1.85	104.91	47.55	152.46

Note: Cost of production estimates are based on 2017 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, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Set Up Engine										
IRRIGATE LABOR	hour				0.45			0.01	0.46	0.46
Survey & Mark Levees	acre	2.25						0.05	2.30	2.30
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.51	0.20	0.43			0.03	1.17	1.21
Butt Levees										
Blade-Box	6'-7'		0.32	0.11	0.27			0.02	0.72	0.61
IRRIGATE LABOR	hour				0.68			0.02	0.70	0.70
Install Gates										
IRRIGATE LABOR	hour				1.36			0.03	1.39	1.39
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
Apply Water										
IRRIGATE LABOR	hour				4.53			0.05	4.58	4.58
Remove Gates										
IRRIGATE LABOR	hour				0.91			0.01	0.92	0.92
Tear Down Levees										
Levee Splitter (1/80	32"		0.39	0.16	0.34			0.01	0.90	0.94
Land Forming (\$450)	each								31.93	31.93
Levee Gates	each								0.66	0.66
Well & Pump, Flood	each			5.91				0.12	6.03	17.47
Engine, Rice SL, 75	each								16.85	16.85
May Irrigation	ac-in		8.80	1.75				0.25	10.80	10.80
June Irrigation	ac-in		10.26	2.04				0.24	12.54	12.54
July Irrigation	ac-in		10.26	2.04				0.19	12.49	12.49
August Irrigation	ac-in		10.26	2.04				0.15	12.45	12.45
TOTALS		2.25	40.80	14.25	22.56	0.00	1.45	81.31	69.67	150.98

Note: Cost of production estimates are based on 2017 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, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Set Up Engine										
IRRIGATE LABOR	hour				0.45			0.01	0.46	0.46
Survey & Mark Levees	acre	2.25						0.05	2.30	2.30
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.51	0.20	0.43			0.03	1.17	1.21
Butt Levees										
Blade-Box	6'-7'		0.32	0.11	0.27			0.02	0.72	0.61
IRRIGATE LABOR	hour				0.68			0.02	0.70	0.70
Ditcher (1m/160a)			0.15	0.06	0.13			0.01	0.35	0.31
Roll-Out Pipe	ft	8.25						0.20	8.45	8.45
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll		0.20	0.09	0.40			0.02	0.71	0.66
Install Gates										
IRRIGATE LABOR	hour				1.36			0.03	1.39	1.39
Apply Water										
IRRIGATE LABOR	hour				1.81			0.04	1.85	1.85
Apply Water										
IRRIGATE LABOR	hour				1.81			0.04	1.85	1.85
Apply Water										
IRRIGATE LABOR	hour				1.81			0.03	1.84	1.84
Apply Water										
IRRIGATE LABOR	hour				1.81			0.02	1.83	1.83
Remove Gates										
IRRIGATE LABOR	hour				0.45				0.45	0.45
Tear Down Levees										
Levee Splitter (1/80	32"		0.39	0.16	0.34			0.01	0.90	0.94
Pick Up Pipe										
Pipe Spool 160ac	1/4m roll		0.10	0.04	0.19				0.33	0.33
Land Forming (\$450)	each								31.93	31.93
Levee Gates	each								0.33	0.33
Well & Pump, Flood	each			5.91				0.12	6.03	17.47
Engine, Mult In Rice	each								16.85	16.85
May Irrigation	ac-in		7.33	1.64				0.21	9.18	9.18
June Irrigation	ac-in		8.80	1.97				0.21	10.98	10.98
July Irrigation	ac-in		8.80	1.97				0.17	10.94	10.94
August Irrigation	ac-in		8.80	1.97				0.13	10.90	10.90
TOTALS		10.50	35.40	14.12	11.94	0.00	1.37	73.33	70.64	143.97

Note: Cost of production estimates are based on 2017 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, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----dollars-----										
Set Up Engine										
IRRIGATE LABOR	hour				0.45		0.01	0.46	0.46	
Apply Water										
IRRIGATE LABOR	hour				2.27		0.05	2.32	2.32	
Apply Water										
IRRIGATE LABOR	hour				2.27		0.04	2.31	2.31	
Apply Water										
IRRIGATE LABOR	hour				2.27		0.04	2.31	2.31	
Apply Water										
IRRIGATE LABOR	hour				2.27		0.03	2.30	2.30	
Land Forming (\$450)	each							31.93	31.93	
Well & Pump, Flood	each			5.91			0.12	6.03	17.47	
Engine, Rice SL, 75	each							16.85	16.85	
May Irrigation	ac-in		5.87	1.17			0.17	7.21	7.21	
June Irrigation	ac-in		7.33	1.46			0.17	8.96	8.96	
July Irrigation	ac-in		7.33	1.46			0.14	8.93	8.93	
August Irrigation	ac-in		7.33	1.46			0.10	8.89	8.89	
TOTALS		0.00	27.86	11.46	9.53	0.00	0.87	49.72	66.25	115.97

Note: Cost of production estimates are based on 2017 input prices.

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