

**CORN, GRAIN
SORGHUM & WHEAT
2018
PLANNING BUDGETS**

**Mississippi State University
Department of Agricultural Economics
Budget Report 2017-03**

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

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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 perquisites (11). Labor costs are estimated for four labor categories: operator labor, hand labor, irrigation labor, and unallocated labor. Operator labor and hand labor represent estimates of labor required to

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

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

Estimates of Fixed Costs

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

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

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 operation.

To estimate returns, a price for the commodity must be used. Individual producers must determine their own expected price for the commodity. Commodity prices used in this report represent the higher of a calculated forward contract price or the loan rate that was applicable for the 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 and 9. A dryland crop budget may be converted to an irrigated crop budget by adding the appropriate direct and fixed costs to the costs of the dryland crop. Also, adjustments in crop yields and other costs may be required with the addition of supplemental irrigation.

Net Returns

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

Enterprise Budgets

Table 1.A Estimated costs per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 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	1.0000	6.50	_____
App by Air (3 gal)	appl	5.00	0.2000	1.00	_____
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	18.75	1.9570	36.69	_____
Potash (60% K2O)	cwt	18.98	1.5000	28.47	_____
Fert 10-34-0	gal	2.59	4.2919	11.12	_____
Zinc Plus	pt	2.99	2.0000	5.98	_____
UAN + Sulfur (28%)	gal	1.31	32.1712	42.14	_____
UAN (32%)	gal	1.17	39.5570	46.28	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2800	1.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.63	34.0000	123.42	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	220.0000	50.60	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4242	5.72	_____
Harvesters	hour	13.51	0.1009	1.36	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3250	2.96	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.1354	1.22	_____
UNALLOCATED LABOR					
	hour	13.50	0.4020	5.43	_____
DIESEL FUEL					
Tractors	gal	1.80	4.7302	8.53	_____
Harvesters	gal	1.80	1.6890	3.04	_____
Roll-Out Pipe Irr.	gal	1.80	10.5901	19.08	_____
REPAIR & MAINTENANCE					
Implements	acre	7.52	1.0000	7.52	_____
Tractors	acre	2.67	1.0000	2.67	_____
Harvesters	acre	3.73	1.0000	3.73	_____
Roll-Out Pipe Irr.	acre	6.88	1.0000	6.88	_____
INTEREST ON OP. CAP.	acre	14.18	1.0000	14.18	_____
TOTAL DIRECT EXPENSES				551.27	_____
FIXED EXPENSES					
Implements	acre	11.58	1.0000	11.58	_____
Tractors	acre	16.81	1.0000	16.81	_____
Harvesters	acre	14.73	1.0000	14.73	_____
Roll-Out Pipe Irr.	acre	53.42	1.0000	53.42	_____
TOTAL FIXED EXPENSES				96.54	_____
TOTAL SPECIFIED EXPENSES				647.81	_____

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.

Lime cost prorated for application every 3rd year.

Table 1.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goa
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	220.0000	827.20	_____

TOTAL INCOME				827.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	170.68	1.0000	170.68	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	1.00	1.0000	1.00	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	123.42	1.0000	123.42	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	50.60	1.0000	50.60	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1354	1.22	_____
IRRIGATE LABOR	hour	9.06	0.3875	3.53	_____
OPERATOR LABOR	hour	13.51	0.5252	7.08	_____
UNALLOCATED LABOR	hour	13.50	0.4020	5.43	_____
DIESEL FUEL	gal	1.80	17.0094	30.65	_____
REPAIR & MAINTENANCE	acre	20.80	1.0000	20.80	_____
INTEREST ON OP. CAP.	acre	14.18	1.0000	14.18	_____

TOTAL DIRECT EXPENSES				551.27	_____
RETURNS ABOVE DIRECT EXPENSES				275.93	_____
TOTAL FIXED EXPENSES				96.54	_____

TOTAL SPECIFIED EXPENSES				647.81	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				179.39	_____

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.

Lime cost prorated for application every 3rd year.

Table 1.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 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				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)	cwt					1.9570				
Potash (60% K2O)	cwt					1.5000				
Bed/Disk w/roller	12R-30/40	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant & Pre-Folding	12R-38	MFWD 225	0.053	1.00	Mar		0.05	0.05	0.10	0.04
Corn Seed BtRR	thous					34.0000				
Fert 10-34-0	gal					4.2919				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					32.1712				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2800				
Corn Consultant	acre			1.00	May	1.0000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					39.5570				
Header - Corn	8R-38	325 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					220.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
Roll-Out Pipe Irr.	acre				Jul	1.0000	0.07	0.07	0.46	
TOTALS							0.52	0.52	1.04	0.40

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.

Lime cost prorated for application every 3rd year.

Table 1.D Estimated costs for field operations, per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 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
Lime (Spread)	ton	30.64						1.46	32.10		32.10
Spin Spreader	5 ton		0.88	0.57	1.46			0.14	3.05	2.33	5.38
Phosphorus (46% P2O5)	cwt	36.69						1.74	38.43		38.43
Potash (60% K2O)	cwt	28.47						1.35	29.82		29.82
Bed/Disk w/roller	12R-30/40		1.30	1.10	1.60			0.19	4.19	4.41	8.60
App by Air (5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
Clarity	pt	5.78						0.18	5.96		5.96
Select Max	pt	12.64						0.40	13.04		13.04
Plant & Pre-Folding	12R-38		1.11	1.98	1.85			0.14	5.08	5.32	10.40
Corn Seed BtRR	thous	123.42						3.42	126.84		126.84
Fert 10-34-0	gal	11.12						0.31	11.43		11.43
Zinc Plus	pt	5.98						0.17	6.15		6.15
Custom Apply Fert	acre	7.50						0.18	7.68		7.68
UAN + Sulfur (28%)	gal	42.14						1.00	43.14		43.14
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Atrazine 4L	pt	8.48						0.20	8.68		8.68
Halex GT	pt	28.08						0.67	28.75		28.75
App by Air (3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.00						0.02	1.02		1.02
Corn Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56			0.07	3.70	2.88	6.58
UAN (32%)	gal	46.28						0.92	47.20		47.20
Header - Corn	8R-38		3.04	5.30	2.59			0.04	10.97	17.09	28.06
Grain Cart Corn	700 bu		0.53	0.42	0.65			0.01	1.61	1.49	3.10
Haul Corn	bu	50.60						0.20	50.80		50.80
Stalk Shredder Flex	20'		1.72	2.54	2.11			0.03	6.40	4.62	11.02
Roll-Out Pipe Irr.	acre	8.25	20.40	7.47	4.59			0.65	41.36	56.95	98.31
TOTALS		468.38	30.65	20.80	17.26	0.00	14.18	551.27	96.54	647.81	

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.

Lime cost prorated for application every 3rd year.

Table 1.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 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	0.00	827.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	0.00	0.00	0.00	0.00
FERTILIZERS	65.16	0.00	0.00	0.00	0.00	17.10	42.14	46.28	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	123.42	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.60
CUSTOM LIME	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.57	0.00	0.00	0.00	0.00	1.85	0.85	1.79	3.03	0.23	0.59	5.35
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	2.85	0.00	0.00	0.00	0.00	1.11	0.59	1.08	14.66	4.77	0.30	5.29
REPAIR & MAINTENANCE	1.98	0.00	0.00	0.00	0.00	1.98	0.43	0.99	6.05	0.98	0.13	8.26
INTEREST ON OP. CAP.	5.11	0.00	0.00	0.00	0.93	4.04	2.09	1.15	0.50	0.07	0.01	0.28
TOTAL DIRECT EXPENSES	112.64	0.00	0.00	0.00	30.33	149.50	90.16	59.29	32.49	6.05	1.03	69.78
NET INCOME	-112.64	0.00	0.00	0.00	-30.33	-149.50	-90.16	-59.29	-32.49	-6.05	-1.03	757.42
NET INCOME TO DATE	-112.64	-112.64	-112.64	-112.64	-142.97	-292.47	-382.63	-441.92	-474.41	-480.46	-481.49	275.93

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.

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 1.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
	PRODUCT PRICE												
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70		
PERCENT	YIELD	UNIT	dollars										
50	110.00	bu	-215 -312	-194 -291	-174 -270	-153 -250	-132 -229	-112 -208	-91 -188	-70 -167	-50 -146	-29 -126	-8 -105
60	132.00	bu	-158 -255	-133 -230	-109 -205	-84 -180	-59 -155	-34 -131	-9 -106	15 -81	39 -56	64 -31	89 -7
70	154.00	bu	-101 -198	-72 -169	-43 -140	-14 -111	14 -82	43 -53	71 -24	100 4	129 33	158 62	187 91
80	176.00	bu	-44 -141	-11 -108	21 -75	54 -42	87 -8	120 24	153 57	186 90	219 123	253 156	286 189
90	198.00	bu	12 -84	49 -47	86 -9	123 27	161 64	198 101	235 138	272 176	309 213	347 250	384 287
100	220.00	bu	69 -27	110 13	151 55	193 96	234 138	275 179	317 220	358 262	400 303	441 344	482 386
110	242.00	bu	126 29	171 75	217 120	262 166	308 211	353 257	399 302	444 348	490 393	535 439	581 484
120	264.00	bu	183 86	232 136	282 185	331 235	381 285	431 334	480 384	530 433	580 483	629 533	679 582
130	286.00	bu	240 143	293 197	347 251	401 304	455 358	508 412	562 466	616 519	670 573	723 627	777 681
140	308.00	bu	296 200	354 258	412 316	470 374	528 432	586 489	644 547	702 605	760 663	818 721	876 779
150	330.00	bu	353 257	415 319	478 381	540 443	602 505	664 567	726 629	788 691	850 753	912 815	974 877

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
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, 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	1.0000	6.50	_____
App by Air (3 gal)	appl	5.00	0.2000	1.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
Fert 10-34-0	gal	2.59	4.2919	11.12	_____
Zinc Plus	pt	2.99	2.0000	5.98	_____
UAN + Sulfur (28%)	gal	1.31	19.3063	25.29	_____
UAN (32%)	gal	1.17	29.6700	34.71	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2800	1.00	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.63	28.0000	101.64	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3457	4.66	_____
Harvesters	hour	13.51	0.1009	1.36	_____
HAND LABOR					
Implements	hour	9.06	0.1354	1.22	_____
UNALLOCATED LABOR					
	hour	13.50	0.4020	5.43	_____
DIESEL FUEL					
Tractors	gal	1.80	4.0040	7.21	_____
Harvesters	gal	1.80	1.3770	2.48	_____
REPAIR & MAINTENANCE					
Implements	acre	7.32	1.0000	7.32	_____
Tractors	acre	2.28	1.0000	2.28	_____
Harvesters	acre	3.45	1.0000	3.45	_____
INTEREST ON OP. CAP.	acre	11.74	1.0000	11.74	_____
TOTAL DIRECT EXPENSES				434.71	_____
FIXED EXPENSES					
Implements	acre	10.56	1.0000	10.56	_____
Tractors	acre	14.30	1.0000	14.30	_____
Harvesters	acre	13.61	1.0000	13.61	_____
TOTAL FIXED EXPENSES				38.47	_____
TOTAL SPECIFIED EXPENSES				473.18	_____

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.

Lime cost prorated for application every 3rd year.

Table 2.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	131.39	1.0000	131.39	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	1.00	1.0000	1.00	_____
SEED/PLANTS	acre	101.64	1.0000	101.64	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1354	1.22	_____
OPERATOR LABOR	hour	13.51	0.4466	6.02	_____
UNALLOCATED LABOR	hour	13.50	0.4020	5.43	_____
DIESEL FUEL	gal	1.80	5.3810	9.69	_____
REPAIR & MAINTENANCE	acre	13.05	1.0000	13.05	_____
INTEREST ON OP. CAP.	acre	11.74	1.0000	11.74	_____

TOTAL DIRECT EXPENSES				434.71	_____
RETURNS ABOVE DIRECT EXPENSES				204.49	_____
TOTAL FIXED EXPENSES				38.47	_____

TOTAL SPECIFIED EXPENSES				473.18	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				166.02	_____

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.

Lime cost prorated for application every 3rd year.

Table 2.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, 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				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.6300				
Potash (60% K2O)	cwt					1.2500				
Bed/Disk w/roller	12R-30/40	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant & Pre-Folding	12R-38	MFWD 225	0.053	1.00	Mar		0.05	0.05	0.10	0.04
Corn Seed BtRR	thous					28.0000				
Fert 10-34-0	gal					4.2919				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					19.3063				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2800				
Corn Consultant	acre			1.00	May	1.0000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					29.6700				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.44	0.44	0.58	0.40

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.
Lime cost prorated for application every 3rd year.

Table 2.D Estimated costs for field operations, per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, 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
Lime (Spread)	ton	30.64						1.46	32.10		32.10
Spin Spreader	5 ton		0.88	0.57	1.46			0.14	3.05	2.33	5.38
Phosphorus (46% P2O5)	cwt	30.56						1.45	32.01		32.01
Potash (60% K2O)	cwt	23.73						1.13	24.86		24.86
Bed/Disk w/roller	12R-30/40		1.30	1.10	1.60			0.19	4.19	4.41	8.60
App by Air (5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
Clarity	pt	5.78						0.18	5.96		5.96
Select Max	pt	12.64						0.40	13.04		13.04
Plant & Pre-Folding	12R-38		1.11	1.98	1.85			0.14	5.08	5.32	10.40
Corn Seed BtRR	thous	101.64						2.82	104.46		104.46
Fert 10-34-0	gal	11.12						0.31	11.43		11.43
Zinc Plus	pt	5.98						0.17	6.15		6.15
Custom Apply Fert	acre	7.50						0.18	7.68		7.68
UAN + Sulfur (28%)	gal	25.29						0.60	25.89		25.89
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Atrazine 4L	pt	8.48						0.20	8.68		8.68
Halex GT	pt	28.08						0.67	28.75		28.75
App by Air (3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.00						0.02	1.02		1.02
Corn Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56			0.07	3.70	2.88	6.58
UAN (32%)	gal	34.71						0.69	35.40		35.40
Header - Corn	8R-38		2.48	5.02	2.59			0.04	10.13	15.97	26.10
Grain Cart Corn	700 bu		0.53	0.42	0.65			0.01	1.61	1.49	3.10
Haul Corn	bu	39.10						0.15	39.25		39.25
Stalk Shredder Flex	20'		1.72	2.54	2.11			0.03	6.40	4.62	11.02
TOTALS		387.56	9.69	13.05	12.67	0.00	11.74	434.71	38.47	473.18	

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.

Lime cost prorated for application every 3rd year.

Table 2.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, 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	0.00	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	0.00	0.00	0.00	0.00
FERTILIZERS	54.29	0.00	0.00	0.00	0.00	17.10	25.29	34.71	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	101.64	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.10
CUSTOM LIME	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.06	0.00	0.00	0.00	0.00	1.85	0.85	1.56	0.00	0.00	0.00	5.35
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	2.18	0.00	0.00	0.00	0.00	1.11	0.59	1.08	0.00	0.00	0.00	4.73
REPAIR & MAINTENANCE	1.67	0.00	0.00	0.00	0.00	1.98	0.43	0.99	0.00	0.00	0.00	7.98
INTEREST ON OP. CAP.	4.53	0.00	0.00	0.00	0.93	3.44	1.69	0.92	0.00	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	99.70	0.00	0.00	0.00	30.33	127.12	72.91	47.26	0.00	0.00	0.00	57.39
NET INCOME	-99.70	0.00	0.00	0.00	-30.33	-127.12	-72.91	-47.26	0.00	0.00	0.00	581.81
NET INCOME TO DATE	-99.70	-99.70	-99.70	-99.70	-130.03	-257.15	-330.06	-377.32	-377.32	-377.32	-377.32	204.49

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.

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 2.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Corn			2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70
			-----dollars-----										
PERCENT	YIELD	UNIT											
50	85.00	bu	-175 -213	-159 -197	-143 -181	-127 -165	-111 -149	-95 -133	-79 -117	-63 -101	-47 -86	-31 -70	-15 -54
60	102.00	bu	-131 -169	-112 -150	-93 -131	-73 -112	-54 -93	-35 -73	-16 -54	2 -35	22 -16	41 2	60 21
70	119.00	bu	-87 -125	-64 -103	-42 -81	-20 -58	2 -36	24 -13	46 8	69 30	91 53	113 75	136 97
80	136.00	bu	-43 -81	-17 -56	7 -30	33 -5	58 20	84 46	110 71	135 97	161 122	186 148	212 173
90	153.00	bu	0 -37	29 -9	58 19	86 48	115 77	144 106	173 134	202 163	230 192	259 221	288 249
100	170.00	bu	44 6	76 38	108 70	140 102	172 134	204 166	236 197	268 229	300 261	332 293	364 325
110	187.00	bu	88 50	123 85	159 120	194 155	229 190	264 226	299 261	334 296	369 331	405 366	440 401
120	204.00	bu	132 94	171 132	209 170	247 209	286 247	324 286	362 324	401 362	439 401	477 439	516 477
130	221.00	bu	176 138	218 179	259 221	301 262	342 304	384 346	426 387	467 429	509 470	550 512	592 553
140	238.00	bu	220 182	265 227	310 271	354 316	399 361	444 406	489 450	533 495	578 540	623 584	668 629
150	255.00	bu	264 226	312 274	360 322	408 370	456 418	504 465	552 513	600 561	648 609	696 657	744 705

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
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 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	1.0000	6.50	_____
App by Air (3 gal)	appl	5.00	1.2000	6.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.9570	36.69	_____
Potash (60% K2O)	cwt	18.98	1.5000	28.47	_____
UAN + Sulfur (28%)	gal	1.31	32.1712	42.14	_____
UAN (32%)	gal	1.17	39.5570	46.28	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2804	1.00	_____
Intrepid 2F	oz	2.00	4.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.24	34.0000	110.16	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	220.0000	50.60	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.6930	9.35	_____
Harvesters	hour	13.51	0.1009	1.36	_____
Self-Propelled	hour	13.51	0.0176	0.24	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3250	2.96	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.1175	1.06	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.50	0.6597	8.91	_____
DIESEL FUEL					
Tractors	gal	1.80	7.8429	14.13	_____
Harvesters	gal	1.80	1.3770	2.48	_____
Self-Propelled	gal	1.80	0.1586	0.29	_____
Roll-Out Pipe Irr.	gal	1.80	10.5901	19.08	_____
REPAIR & MAINTENANCE					
Implements	acre	9.22	1.0000	9.22	_____
Tractors	acre	4.44	1.0000	4.44	_____
Harvesters	acre	3.45	1.0000	3.45	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
Roll-Out Pipe Irr.	acre	6.88	1.0000	6.88	_____
INTEREST ON OP. CAP.	acre	14.19	1.0000	14.19	_____
TOTAL DIRECT EXPENSES				549.89	_____
FIXED EXPENSES					
Implements	acre	16.10	1.0000	16.10	_____
Tractors	acre	27.90	1.0000	27.90	_____
Harvesters	acre	13.61	1.0000	13.61	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
Roll-Out Pipe Irr.	acre	53.42	1.0000	53.42	_____
TOTAL FIXED EXPENSES				112.23	_____
TOTAL SPECIFIED EXPENSES				662.12	_____

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.

Lime cost prorated for application every 3rd year.

Table 3.B Summary of estimated costs and returns per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	220.0000	827.20	_____

TOTAL INCOME				827.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	12.50	1.0000	12.50	_____
FERTILIZERS	acre	153.58	1.0000	153.58	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	9.00	1.0000	9.00	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	110.16	1.0000	110.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	50.60	1.0000	50.60	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1263	1.14	_____
IRRIGATE LABOR	hour	9.06	0.3875	3.53	_____
OPERATOR LABOR	hour	13.51	0.8116	10.95	_____
UNALLOCATED LABOR	hour	13.50	0.6597	8.91	_____
DIESEL FUEL	gal	1.80	19.9688	35.98	_____
REPAIR & MAINTENANCE	acre	24.17	1.0000	24.17	_____
INTEREST ON OP. CAP.	acre	14.19	1.0000	14.19	_____

TOTAL DIRECT EXPENSES				549.89	_____
RETURNS ABOVE DIRECT EXPENSES				277.31	_____
TOTAL FIXED EXPENSES				112.23	_____

TOTAL SPECIFIED EXPENSES				662.12	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				165.08	_____

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.

Lime cost prorated for application every 3rd year.

Table 3.C Estimated resource use for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER UNIT	ALLOC LABOR	UNALL LABOR	
						-----hours-----				
Subsoiler	3 shank	MFWD 225	0.204	0.50	Oct		0.10	0.10	0.09	
Disk Harrow	24'	MFWD 225	0.081	1.00	Oct		0.08	0.08	0.07	
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.03	
Phosphorus(46% P2O5)	cwt					1.9570				
Potash (60% K2O)	cwt					1.5000				
Bed/Disk w/roller	12R-30/40	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.05	
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Row Cond./Roll-Fold.	30'	MFWD 225	0.062	1.00	Mar		0.06	0.06	0.05	
Plant - Folding	12R-38	MFWD 225	0.049	1.00	Mar		0.04	0.04	0.04	
Corn Seed RR2	thous					34.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					32.1712				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr		0.01	0.02	0.01	
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
Corn Consultant	acre			1.00	May	1.0000				
				0.20	May					
App by Air (3 gal)	appl					0.2000				
Bifenthrin	oz					1.2804				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.04	
UAN (32%)	gal					39.5570				
Cultivate	12R-38	MFWD 225	0.054	1.00	May		0.05	0.05	0.04	
App by Air (3 gal)	appl			1.00	Jun	1.0000				
Intrepid 2F	oz					4.0000				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.09	
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	
Haul Corn	bu					220.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.07	
Roll-Out Pipe Irr.	acre				Jul	1.0000	0.07	0.07	0.46	
TOTALS							0.81	0.79	1.32	0.65

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.
Lime cost prorated for application every 3rd year.

Table 3.D Estimated costs for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 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-----											
Subsoiler	3 shank		2.13	0.82	2.62			0.26	5.83	4.60	10.43
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Soil Test	acre	3.33						0.16	3.49		3.49
Lime (Spread)	ton	30.64						1.46	32.10		32.10
Spin Spreader	5 ton		0.88	0.57	1.46			0.14	3.05	2.33	5.38
Phosphorus(46% P2O5)	cwt	36.69						1.74	38.43		38.43
Potash (60% K2O)	cwt	28.47						1.35	29.82		29.82
Bed/Disk w/roller	12R-30/40		1.30	1.10	1.60			0.19	4.19	4.41	8.60
App by Air (5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
Clarity	pt	5.78						0.18	5.96		5.96
Select Max	pt	12.64						0.40	13.04		13.04
Row Cond./Roll-Fold.	30'		1.30	0.97	1.60			0.11	3.98	4.05	8.03
Plant - Folding	12R-38		1.03	1.71	1.72			0.12	4.58	4.69	9.27
Corn Seed RR2	thous	110.16						3.05	113.21		113.21
Custom Apply Fert	acre	7.50						0.18	7.68		7.68
UAN + Sulfur (28%)	gal	42.14						1.00	43.14		43.14
Sprayer 600-750gal	60' 175hp		0.29	0.18	0.53			0.02	1.02	1.20	2.22
Atrazine 4L	pt	8.48						0.20	8.68		8.68
Halex GT	pt	28.08						0.67	28.75		28.75
Corn Consultant	acre	6.00						0.12	6.12		6.12
App by Air (3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.00						0.02	1.02		1.02
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56			0.07	3.70	2.88	6.58
UAN (32%)	gal	46.28						0.92	47.20		47.20
Cultivate	12R-38		1.13	0.90	1.39			0.07	3.49	3.67	7.16
App by Air (3 gal)	appl	5.00						0.08	5.08		5.08
Intrepid 2F	oz	8.00						0.13	8.13		8.13
Header - Corn	8R-38		2.48	5.02	2.59			0.04	10.13	15.97	26.10
Grain Cart Corn	700 bu		0.53	0.42	0.65			0.01	1.61	1.49	3.10
Haul Corn	bu	50.60						0.20	50.80		50.80
Stalk Shredder Flex	20'		1.72	2.54	2.11			0.03	6.40	4.62	11.02
Roll-Out Pipe Irr.	acre	8.25	20.40	7.47	4.59			0.65	41.36	56.95	98.31
TOTALS		451.02	35.98	24.17	24.53	0.00	14.19	549.89	112.23	662.12	

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.
Lime cost prorated for application every 3rd year.

Table 3.E Estimated monthly income and expense flows per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 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	0.00	827.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	5.00	0.00	0.00	0.00
FERTILIZERS	65.16	0.00	0.00	0.00	0.00	0.00	42.14	46.28	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	8.00	0.00	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	110.16	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.60
CUSTOM LIME	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	8.30	0.00	0.00	0.00	0.00	3.32	0.53	3.18	3.03	0.23	0.59	5.35
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	6.69	0.00	0.00	0.00	0.00	2.33	0.29	2.21	14.66	4.77	0.30	4.73
REPAIR & MAINTENANCE	4.28	0.00	0.00	0.00	0.00	2.68	0.18	1.89	6.05	0.98	0.13	7.98
INTEREST ON OP. CAP.	5.62	0.00	0.00	0.00	0.93	3.28	2.07	1.22	0.71	0.07	0.01	0.28
TOTAL DIRECT EXPENSES	124.02	0.00	0.00	0.00	30.33	121.77	89.27	62.78	45.70	6.05	1.03	68.94
NET INCOME	-124.02	0.00	0.00	0.00	-30.33	-121.77	-89.27	-62.78	-45.70	-6.05	-1.03	758.26
NET INCOME TO DATE	-124.02	-124.02	-124.02	-124.02	-154.35	-276.12	-365.39	-428.17	-473.87	-479.92	-480.95	277.31

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.

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 3.F Estimated returns for various price/yield combinations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
	PRODUCT PRICE												
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70		
PERCENT	YIELD	UNIT	dollars										
50	110.00	bu	-214 -326	-193 -305	-172 -285	-152 -264	-131 -243	-110 -223	-90 -202	-69 -181	-48 -161	-28 -140	-7 -119
60	132.00	bu	-157 -269	-132 -244	-107 -219	-82 -195	-58 -170	-33 -145	-8 -120	16 -95	41 -71	66 -46	90 -21
70	154.00	bu	-100 -212	-71 -183	-42 -154	-13 -125	15 -96	44 -67	73 -38	102 -9	131 19	160 47	189 76
80	176.00	bu	-43 -155	-10 -122	22 -89	55 -56	88 -23	122 9	155 42	188 75	221 109	254 142	287 175
90	198.00	bu	13 -98	50 -61	87 -24	125 12	162 50	199 87	236 124	274 161	311 199	348 236	385 273
100	220.00	bu	70 -41	111 -0	153 41	194 82	235 123	277 165	318 206	360 247	401 289	442 330	484 371
110	242.00	bu	127 15	172 60	218 106	263 151	309 197	354 242	400 288	445 333	491 379	536 424	582 470
120	264.00	bu	184 72	234 121	283 171	333 221	382 270	432 320	482 369	531 419	581 469	631 518	680 568
130	286.00	bu	241 129	295 182	348 236	402 290	456 344	510 398	563 451	617 505	671 559	725 613	779 666
140	308.00	bu	298 186	356 244	414 301	472 359	529 417	587 475	645 533	703 591	761 649	819 707	877 765
150	330.00	bu	355 243	417 305	479 367	541 429	603 491	665 553	727 615	789 677	851 739	913 801	975 863

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
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, 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	1.0000	6.50	_____
App by Air (3 gal)	appl	5.00	1.2000	6.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
UAN + Sulfur (28%)	gal	1.31	19.3063	25.29	_____
UAN (32%)	gal	1.17	29.6700	34.71	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2804	1.00	_____
Intrepid 2F	oz	2.00	4.0000	8.00	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.24	28.0000	90.72	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.5690	7.69	_____
Harvesters	hour	13.51	0.1009	1.36	_____
Self-Propelled	hour	13.51	0.0176	0.24	_____
HAND LABOR					
Implements	hour	9.06	0.1175	1.06	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.50	0.6188	8.36	_____
DIESEL FUEL					
Tractors	gal	1.80	6.5903	11.87	_____
Harvesters	gal	1.80	1.3770	2.48	_____
Self-Propelled	gal	1.80	0.1586	0.29	_____
REPAIR & MAINTENANCE					
Implements	acre	7.75	1.0000	7.75	_____
Tractors	acre	3.75	1.0000	3.75	_____
Harvesters	acre	3.45	1.0000	3.45	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
INTEREST ON OP. CAP.	acre	11.73	1.0000	11.73	_____
TOTAL DIRECT EXPENSES				432.83	_____
FIXED EXPENSES					
Implements	acre	12.08	1.0000	12.08	_____
Tractors	acre	23.52	1.0000	23.52	_____
Harvesters	acre	13.61	1.0000	13.61	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
TOTAL FIXED EXPENSES				50.41	_____
TOTAL SPECIFIED EXPENSES				483.24	_____

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.

Lime cost prorated for application every 3rd year.

Table 4.B Summary of estimated costs and returns per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	12.50	1.0000	12.50	_____
FERTILIZERS	acre	114.29	1.0000	114.29	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	9.00	1.0000	9.00	_____
SEED/PLANTS	acre	90.72	1.0000	90.72	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1263	1.14	_____
OPERATOR LABOR	hour	13.51	0.6876	9.29	_____
UNALLOCATED LABOR	hour	13.50	0.6188	8.36	_____
DIESEL FUEL	gal	1.80	8.1261	14.64	_____
REPAIR & MAINTENANCE	acre	15.13	1.0000	15.13	_____
INTEREST ON OP. CAP.	acre	11.73	1.0000	11.73	_____

TOTAL DIRECT EXPENSES				432.83	_____
RETURNS ABOVE DIRECT EXPENSES				206.37	_____
TOTAL FIXED EXPENSES				50.41	_____

TOTAL SPECIFIED EXPENSES				483.24	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				155.96	_____

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.

Lime cost prorated for application every 3rd year.

Table 4.C Estimated resource use for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, 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-----			
Subsoiler	3 shank	MFWD 225	0.204	0.50	Oct		0.10	0.10	0.10	0.09
Disk Harrow	24'	MFWD 225	0.081	1.00	Oct		0.08	0.08	0.08	0.07
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.6300				
Potash (60% K2O)	cwt					1.2500				
Bed/Disk (Hipper)Rd	8R-38	MFWD 225	0.074	1.00	Oct		0.07	0.07	0.07	0.06
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Row Cond Rigid	26'	MFWD 225	0.059	1.00	Mar		0.05	0.05	0.05	0.05
Plant - Folding	12R-38	MFWD 225	0.049	1.00	Mar		0.04	0.04	0.09	0.04
Corn Seed RR2	thous					28.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					19.3063				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
Corn Consultant	acre			1.00	May	1.0000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2804				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					29.6700				
App by Air (3 gal)	appl			1.00	Jun	1.0000				
Intrepid 2F	oz					4.0000				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.68	0.67	0.81	0.61

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.**
- Lime cost prorated for application every 3rd year.**

Table 4.D Estimated costs for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, 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-----											
Subsoiler	3 shank		2.13	0.82	2.62			0.26	5.83	4.60	10.43
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Soil Test	acre	3.33						0.16	3.49		3.49
Lime (Spread)	ton	30.64						1.46	32.10		32.10
Spin Spreader	5 ton		0.88	0.57	1.46			0.14	3.05	2.33	5.38
Phosphorus(46% P2O5)	cwt	30.56						1.45	32.01		32.01
Potash (60% K2O)	cwt	23.73						1.13	24.86		24.86
Bed/Disk (Hipper)Rd	8R-38		1.54	0.78	1.90			0.20	4.42	3.82	8.24
App by Air (5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
Clarity	pt	5.78						0.18	5.96		5.96
Select Max	pt	12.64						0.40	13.04		13.04
Row Cond Rigid	26'		1.25	0.62	1.54			0.09	3.50	3.44	6.94
Plant - Folding	12R-38		1.03	1.71	1.72			0.12	4.58	4.69	9.27
Corn Seed RR2	thous	90.72						2.51	93.23		93.23
Custom Apply Fert	acre	7.50						0.18	7.68		7.68
UAN + Sulfur (28%)	gal	25.29						0.60	25.89		25.89
Sprayer 600-750gal	60' 175hp		0.29	0.18	0.53			0.02	1.02	1.20	2.22
Atrazine 4L	pt	8.48						0.20	8.68		8.68
Halex GT	pt	28.08						0.67	28.75		28.75
Corn Consultant	acre	6.00						0.12	6.12		6.12
App by Air (3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.00						0.02	1.02		1.02
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56			0.07	3.70	2.88	6.58
UAN (32%)	gal	34.71						0.69	35.40		35.40
App by Air (3 gal)	appl	5.00						0.08	5.08		5.08
Intrepid 2F	oz	8.00						0.13	8.13		8.13
Header - Corn	8R-38		2.48	5.02	2.59			0.04	10.13	15.97	26.10
Grain Cart Corn	700 bu		0.53	0.42	0.65			0.01	1.61	1.49	3.10
Haul Corn	bu	39.10						0.15	39.25		39.25
Stalk Shredder Flex	20'		1.72	2.54	2.11			0.03	6.40	4.62	11.02
TOTALS		372.54	14.64	15.13	18.79	0.00	11.73	432.83	50.41	483.24	

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.

Lime cost prorated for application every 3rd year.

Table 4.E Estimated monthly income and expense flows per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, 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	0.00	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	5.00	0.00	0.00	0.00
FERTILIZERS	54.29	0.00	0.00	0.00	0.00	0.00	25.29	34.71	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	8.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	90.72	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.10
CUSTOM LIME	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	8.09	0.00	0.00	0.00	0.00	3.26	0.53	1.56	0.00	0.00	0.00	5.35
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	6.26	0.00	0.00	0.00	0.00	2.28	0.29	1.08	0.00	0.00	0.00	4.73
REPAIR & MAINTENANCE	3.65	0.00	0.00	0.00	0.00	2.33	0.18	0.99	0.00	0.00	0.00	7.98
INTEREST ON OP. CAP.	5.05	0.00	0.00	0.00	0.93	2.72	1.67	0.92	0.21	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	111.31	0.00	0.00	0.00	30.33	101.31	72.02	47.26	13.21	0.00	0.00	57.39
NET INCOME	-111.31	0.00	0.00	0.00	-30.33	-101.31	-72.02	-47.26	-13.21	0.00	0.00	581.81
NET INCOME TO DATE	-111.31	-111.31	-111.31	-111.31	-141.64	-242.95	-314.97	-362.23	-375.44	-375.44	-375.44	206.37

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.

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70		
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-173 -223	-157 -207	-141 -191	-125 -175	-109 -159	-93 -144	-77 -128	-61 -112	-45 -96	-29 -80	-13 -64
60	102.00	bu	-129 -179	-110 -160	-91 -141	-71 -122	-52 -103	-33 -84	-14 -64	4 -45	23 -26	43 -7	62 11
70	119.00	bu	-85 -135	-63 -113	-40 -91	-18 -68	4 -46	26 -24	48 -1	71 20	93 43	115 65	138 87
80	136.00	bu	-41 -91	-15 -66	9 -40	35 -15	60 10	86 35	111 61	137 87	163 112	188 138	214 163
90	153.00	bu	2 -47	31 -19	60 9	88 38	117 67	146 95	175 124	203 153	232 182	261 211	290 239
100	170.00	bu	46 -3	78 28	110 60	142 92	174 124	206 155	238 187	270 219	302 251	334 283	366 315
110	187.00	bu	90 40	125 75	160 110	196 145	231 180	266 215	301 251	336 286	371 321	406 356	442 391
120	204.00	bu	134 84	172 122	211 160	249 199	288 237	326 275	364 314	403 352	441 391	479 429	518 467
130	221.00	bu	178 128	220 169	261 211	303 252	344 294	386 335	427 377	469 419	510 460	552 502	594 543
140	238.00	bu	222 172	267 216	312 261	356 306	401 351	446 395	491 440	535 485	580 530	625 574	670 619
150	255.00	bu	266 216	314 264	362 312	410 360	458 407	506 455	554 503	602 551	650 599	698 647	746 695

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
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	1.0000	6.50	_____
App by Air (3 gal)	appl	5.00	1.2000	6.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
UAN + Sulfur (28%)	gal	1.31	48.5856	63.65	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2804	1.00	_____
Intrepid 2F	oz	2.00	4.0000	8.00	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.24	28.0000	90.72	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4823	6.51	_____
Harvesters	hour	13.51	0.1277	1.73	_____
Self-Propelled	hour	13.51	0.0176	0.24	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.48	0.5649	7.62	_____
DIESEL FUEL					
Tractors	gal	1.80	4.2208	7.60	_____
Harvesters	gal	1.80	1.7419	3.14	_____
Self-Propelled	gal	1.80	0.1586	0.29	_____
REPAIR & MAINTENANCE					
Implements	acre	8.51	1.0000	8.51	_____
Tractors	acre	2.31	1.0000	2.31	_____
Harvesters	acre	4.36	1.0000	4.36	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
INTEREST ON OP. CAP.	acre	11.50	1.0000	11.50	_____
TOTAL DIRECT EXPENSES				431.57	_____
FIXED EXPENSES					
Implements	acre	12.74	1.0000	12.74	_____
Tractors	acre	14.52	1.0000	14.52	_____
Harvesters	acre	17.22	1.0000	17.22	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
TOTAL FIXED EXPENSES				45.68	_____
TOTAL SPECIFIED EXPENSES				477.25	_____

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.

Lime cost prorated for application every 3rd year.

Table 5.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	12.50	1.0000	12.50	_____
FERTILIZERS	acre	117.94	1.0000	117.94	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	9.00	1.0000	9.00	_____
SEED/PLANTS	acre	90.72	1.0000	90.72	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1530	1.39	_____
OPERATOR LABOR	hour	13.51	0.6277	8.48	_____
UNALLOCATED LABOR	hour	13.48	0.5649	7.62	_____
DIESEL FUEL	gal	1.80	6.1215	11.03	_____
REPAIR & MAINTENANCE	acre	15.36	1.0000	15.36	_____
INTEREST ON OP. CAP.	acre	11.50	1.0000	11.50	_____

TOTAL DIRECT EXPENSES				431.57	_____
RETURNS ABOVE DIRECT EXPENSES				207.63	_____
TOTAL FIXED EXPENSES				45.68	_____

TOTAL SPECIFIED EXPENSES				477.25	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				161.95	_____

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.

Lime cost prorated for application every 3rd year.

Table 5.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, 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				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)	cwt					1.6300				
Potash (60% K2O)	cwt					1.2500				
Disk Heavy	20'	MFWD 170	0.097	1.00	Oct		0.09	0.09	0.09	0.08
Bed/Disk w/roller	8R-30/40	MFWD 170	0.093	1.00	Oct		0.09	0.09	0.09	0.08
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant - Rigid	12R-30	MFWD 170	0.062	1.00	Mar		0.06	0.06	0.12	0.05
Corn Seed RR2	thous					28.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					14.8018				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
Fert Appl (Liquid)	12R-30	MFWD 170	0.078	1.00	May		0.07	0.07	0.11	0.07
UAN + Sulfur (28%)	gal					33.7838				
Corn Consultant	acre			1.00	May	1.0000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2804				
App by Air (3 gal)	appl			1.00	Jun	1.0000				
Intrepid 2F	oz					4.0000				
Header - Corn	8R-30	265 hp	0.127	1.00	Sep		0.12	0.12	0.12	0.11
Grain Cart Corn	500 bu	MFWD 170	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 170	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.62	0.61	0.78	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.

Lime cost prorated for application every 3rd year.

Table 5.D Estimated costs for field operations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, 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
Lime (Spread)	ton	30.64						1.46	32.10	32.10
Spin Spreader	5 ton		0.66	0.49	1.46			0.12	2.73	1.86
Phosphorus(46% P2O5)	cwt	30.56						1.45	32.01	32.01
Potash (60% K2O)	cwt	23.73						1.13	24.86	24.86
Disk Heavy	20'		1.53	1.53	2.49			0.26	5.81	5.17
Bed/Disk w/roller	8R-30/40		1.48	1.07	2.41			0.24	5.20	4.47
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62	4.62
Clarity	pt	5.78						0.18	5.96	5.96
Select Max	pt	12.64						0.40	13.04	13.04
Plant - Rigid	12R-30		0.99	1.67	2.18			0.13	4.97	4.52
Corn Seed RR2	thous	90.72						2.51	93.23	93.23
Custom Apply Fert	acre	7.50						0.18	7.68	7.68
UAN + Sulfur (28%)	gal	19.39						0.46	19.85	19.85
Sprayer 600-750gal	60' 175hp		0.29	0.18	0.53			0.02	1.02	1.20
Atrazine 4L	pt	8.48						0.20	8.68	8.68
Halex GT	pt	28.08						0.67	28.75	28.75
Fert Appl (Liquid)	12R-30		1.24	1.43	2.38			0.10	5.15	3.55
UAN + Sulfur (28%)	gal	44.26						0.88	45.14	45.14
Corn Consultant	acre	6.00						0.12	6.12	6.12
App by Air (3 gal)	appl	1.00						0.02	1.02	1.02
Bifenthrin	oz	1.00						0.02	1.02	1.02
App by Air (3 gal)	appl	5.00						0.08	5.08	5.08
Intrepid 2F	oz	8.00						0.13	8.13	8.13
Header - Corn	8R-30		3.14	6.32	3.28			0.05	12.79	20.17
Grain Cart Corn	500 bu		0.40	0.28	0.65			0.01	1.34	1.05
Haul Corn	bu	39.10						0.15	39.25	39.25
Stalk Shredder Flex	20'		1.30	2.39	2.11			0.02	5.82	3.69
TOTALS		376.19	11.03	15.36	17.49	0.00	11.50	431.57	45.68	477.25

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.

Lime cost prorated for application every 3rd year.

Table 5.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, 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	0.00	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	5.00	0.00	0.00	0.00
FERTILIZERS	54.29	0.00	0.00	0.00	0.00	0.00	19.39	44.26	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	8.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	90.72	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.10
CUSTOM LIME	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.36	0.00	0.00	0.00	0.00	2.18	0.53	2.38	0.00	0.00	0.00	6.04
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	3.67	0.00	0.00	0.00	0.00	0.99	0.29	1.24	0.00	0.00	0.00	4.84
REPAIR & MAINTENANCE	3.09	0.00	0.00	0.00	0.00	1.67	0.18	1.43	0.00	0.00	0.00	8.99
INTEREST ON OP. CAP.	4.82	0.00	0.00	0.00	0.93	2.64	1.53	1.14	0.21	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	106.20	0.00	0.00	0.00	30.33	98.20	65.98	58.45	13.21	0.00	0.00	59.20
NET INCOME	-106.20	0.00	0.00	0.00	-30.33	-98.20	-65.98	-58.45	-13.21	0.00	0.00	580.00
NET INCOME TO DATE	-106.20	-106.20	-106.20	-106.20	-136.53	-234.73	-300.71	-359.16	-372.37	-372.37	-372.37	207.63

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.

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 5.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70		
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-172 -217	-156 -201	-140 -185	-124 -169	-108 -154	-92 -138	-76 -122	-60 -106	-44 -90	-28 -74	-12 -58
60	102.00	bu	-128 -173	-109 -154	-89 -135	-70 -116	-51 -97	-32 -78	-13 -58	6 -39	25 -20	44 -1	63 17
70	119.00	bu	-84 -129	-61 -107	-39 -85	-17 -62	5 -40	27 -18	50 4	72 26	94 49	117 71	139 93
80	136.00	bu	-40 -85	-14 -60	10 -34	36 -9	62 16	87 41	113 67	138 93	164 118	189 144	215 169
90	153.00	bu	3 -41	32 -13	61 15	90 44	118 73	147 101	176 130	205 159	233 188	262 217	291 245
100	170.00	bu	47 2	79 34	111 66	143 98	175 129	207 161	239 193	271 225	303 257	335 289	367 321
110	187.00	bu	91 46	127 81	162 116	197 151	232 186	267 221	302 257	337 292	373 327	408 362	443 397
120	204.00	bu	135 90	174 128	212 166	250 205	289 243	327 281	365 320	404 358	442 396	481 435	519 473
130	221.00	bu	179 134	221 175	262 217	304 258	346 300	387 341	429 383	470 425	512 466	553 508	595 549
140	238.00	bu	223 178	268 222	313 267	358 312	402 357	447 401	492 446	537 491	581 536	626 580	671 625
150	255.00	bu	267 222	315 270	363 318	411 366	459 413	507 461	555 509	603 557	651 605	699 653	747 701

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
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	1.0000	6.50	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
Fert 10-34-0	gal	2.59	4.2919	11.12	_____
UAN (32%)	gal	1.17	45.2080	52.89	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.63	28.0000	101.64	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4165	5.63	_____
Harvesters	hour	13.51	0.1277	1.73	_____
HAND LABOR					
Implements	hour	9.06	0.2283	2.06	_____
UNALLOCATED LABOR	hour	13.49	0.4898	6.61	_____
DIESEL FUEL					
Tractors	gal	1.80	3.6449	6.57	_____
Harvesters	gal	1.80	1.7419	3.14	_____
REPAIR & MAINTENANCE					
Implements	acre	7.50	1.0000	7.50	_____
Tractors	acre	1.99	1.0000	1.99	_____
Harvesters	acre	4.36	1.0000	4.36	_____
INTEREST ON OP. CAP.	acre	10.17	1.0000	10.17	_____
TOTAL DIRECT EXPENSES				414.73	_____
FIXED EXPENSES					
Implements	acre	9.99	1.0000	9.99	_____
Tractors	acre	12.54	1.0000	12.54	_____
Harvesters	acre	17.22	1.0000	17.22	_____
TOTAL FIXED EXPENSES				39.75	_____
TOTAL SPECIFIED EXPENSES				454.48	_____

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.

Lime cost prorated for application every 3rd year.

Table 6.B Summary of estimated costs and returns per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	118.30	1.0000	118.30	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
SEED/PLANTS	acre	101.64	1.0000	101.64	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.2283	2.06	_____
OPERATOR LABOR	hour	13.51	0.5442	7.36	_____
UNALLOCATED LABOR	hour	13.49	0.4898	6.61	_____
DIESEL FUEL	gal	1.80	5.3869	9.71	_____
REPAIR & MAINTENANCE	acre	13.85	1.0000	13.85	_____
INTEREST ON OP. CAP.	acre	10.17	1.0000	10.17	_____

TOTAL DIRECT EXPENSES				414.73	_____
RETURNS ABOVE DIRECT EXPENSES				224.47	_____
TOTAL FIXED EXPENSES				39.75	_____

TOTAL SPECIFIED EXPENSES				454.48	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				184.72	_____

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.
Lime cost prorated for application every 3rd year.

Table 6.C Estimated resource use for field operations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, 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				
Lime (Spread)	ton			0.33	Oct	0.6660				
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Mar		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.6300				
Potash (60% K2O)	cwt					1.2500				
NT Plant&Pre-Rigid	8R-30	MFWD 170	0.105	1.00	Mar		0.10	0.10	0.21	0.09
Corn Seed BtRR	thous					28.0000				
Fert 10-34-0	gal					4.2919				
Spray (Broadcast)	27'	MFWD 170	0.062	1.00	Apr		0.06	0.06	0.09	0.05
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
Fert Appl (Liquid)	8R-30	MFWD 170	0.098	1.00	Apr		0.09	0.09	0.14	0.08
UAN (32%)	gal					45.2080				
Corn Consultant	acre			1.00	May	1.0000				
Header - Corn	8R-30	265 hp	0.127	1.00	Sep		0.12	0.12	0.12	0.11
Grain Cart Corn	500 bu	MFWD 170	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 170	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.54	0.54	0.77	0.48

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.

Lime cost prorated for application every 3rd year.

Table 6.D Estimated costs for field operations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----dollars-----										
Soil Test	acre	3.33					0.16	3.49	3.49	
Lime (Spread)	ton	30.64					1.46	32.10	32.10	
App by Air (5 gal)	appl	6.50					0.21	6.71	6.71	
Glyphosate 3lbs a.e	oz	4.48					0.14	4.62	4.62	
Clarity	pt	5.78					0.18	5.96	5.96	
Select Max	pt	12.64					0.40	13.04	13.04	
Spin Spreader	5 ton		0.66	0.49	1.46		0.07	2.68	1.86	
Phosphorus(46% P2O5)	cwt	30.56					0.85	31.41	31.41	
Potash (60% K2O)	cwt	23.73					0.66	24.39	24.39	
NT Plant&Pre-Rigid	8R-30		1.67	2.37	3.68		0.21	7.93	6.74	
Corn Seed BtRR	thous	101.64					2.82	104.46	104.46	
Fert 10-34-0	gal	11.12					0.31	11.43	11.43	
Spray (Broadcast)	27'		0.99	0.46	1.89		0.08	3.42	2.08	
Atrazine 4L	pt	8.48					0.20	8.68	8.68	
Halex GT	pt	28.08					0.67	28.75	28.75	
Fert Appl (Liquid)	8R-30		1.55	1.54	2.96		0.14	6.19	4.16	
UAN (32%)	gal	52.89					1.26	54.15	54.15	
Corn Consultant	acre	6.00					0.12	6.12	6.12	
Header - Corn	8R-30		3.14	6.32	3.28		0.05	12.79	20.17	
Grain Cart Corn	500 bu		0.40	0.28	0.65		0.01	1.34	1.05	
Haul Corn	bu	39.10					0.15	39.25	39.25	
Stalk Shredder Flex	20'		1.30	2.39	2.11		0.02	5.82	3.69	
TOTALS		364.97	9.71	13.85	16.03	0.00	10.17	414.73	39.75	454.48

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.

Lime cost prorated for application every 3rd year.

Table 6.E Estimated monthly income and expense flows per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, 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	0.00	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	65.41	52.89	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	101.64	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.10
CUSTOM LIME	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	5.14	4.85	0.00	0.00	0.00	0.00	6.04
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	2.33	2.54	0.00	0.00	0.00	0.00	4.84
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	2.86	2.00	0.00	0.00	0.00	0.00	8.99
INTEREST ON OP. CAP.	1.62	0.00	0.00	0.00	0.93	4.92	2.35	0.12	0.00	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	35.59	0.00	0.00	0.00	30.33	182.30	101.19	6.12	0.00	0.00	0.00	59.20
NET INCOME	-35.59	0.00	0.00	0.00	-30.33	-182.30	-101.19	-6.12	0.00	0.00	0.00	580.00
NET INCOME TO DATE	-35.59	-35.59	-35.59	-35.59	-65.92	-248.22	-349.41	-355.53	-355.53	-355.53	-355.53	224.47

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 6.F Estimated returns for various price/yield combinations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70		
PERCENT	YIELD	UNIT	dollars										
50	85.00	bu	-155 -195	-139 -179	-123 -163	-107 -147	-91 -131	-75 -115	-59 -99	-43 -83	-27 -67	-11 -51	4 -35
60	102.00	bu	-111 -151	-92 -131	-73 -112	-53 -93	-34 -74	-15 -55	3 -36	22 -16	42 2	61 21	80 40
70	119.00	bu	-67 -107	-45 -84	-22 -62	-0 -40	22 -17	44 4	66 27	89 49	111 71	133 94	156 116
80	136.00	bu	-23 -63	2 -37	27 -11	53 13	78 39	104 64	130 90	155 115	181 141	206 167	232 192
90	153.00	bu	20 -19	49 9	78 38	106 67	135 95	164 124	193 153	222 182	250 211	279 239	308 268
100	170.00	bu	64 24	96 56	128 88	160 120	192 152	224 184	256 216	288 248	320 280	352 312	384 344
110	187.00	bu	108 68	143 104	178 139	214 174	249 209	284 244	319 279	354 315	389 350	425 385	460 420
120	204.00	bu	152 112	191 151	229 189	267 228	306 266	344 304	382 343	421 381	459 419	497 458	536 496
130	221.00	bu	196 156	238 198	279 240	321 281	362 323	404 364	446 406	487 447	529 489	570 530	612 572
140	238.00	bu	240 200	285 245	330 290	374 335	419 379	464 424	509 469	553 514	598 558	643 603	688 648
150	255.00	bu	284 244	332 292	380 340	428 388	476 436	524 484	572 532	620 580	668 628	716 676	764 724

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
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	1.0000	6.50	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.3000	24.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
UAN + Sulfur (28%)	gal	1.31	38.2883	50.16	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Select Max	pt	12.64	1.0000	12.64	_____
Lexar	pt	7.96	6.0000	47.76	_____
INSECTICIDES					
Sivanto Prime	oz	2.55	8.0000	20.40	_____
Karate Z	oz	2.74	1.5000	4.11	_____
Prevathon	oz	1.32	14.0000	18.48	_____
SEED/PLANTS					
Sorghum Concept+ Po	lb	3.92	4.5000	17.64	_____
ADJUVANTS					
Surfactant	pt	3.28	0.3000	0.98	_____
HAULING					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Sorghum Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3120	4.22	_____
Harvesters	hour	13.51	0.1021	1.38	_____
Self-Propelled	hour	13.51	0.0661	0.90	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0330	0.30	_____
UNALLOCATED LABOR					
	hour	13.51	0.4322	5.84	_____
DIESEL FUEL					
Tractors	gal	1.80	2.7303	4.91	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Self-Propelled	gal	1.80	0.8505	1.55	_____
REPAIR & MAINTENANCE					
Implements	acre	4.74	1.0000	4.74	_____
Tractors	acre	1.49	1.0000	1.49	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Self-Propelled	acre	0.90	1.0000	0.90	_____
INTEREST ON OP. CAP.	acre	7.54	1.0000	7.54	_____
TOTAL DIRECT EXPENSES				337.36	_____
FIXED EXPENSES					
Implements	acre	9.31	1.0000	9.31	_____
Tractors	acre	9.39	1.0000	9.39	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Self-Propelled	acre	5.90	1.0000	5.90	_____
TOTAL FIXED EXPENSES				38.37	_____
TOTAL SPECIFIED EXPENSES				375.73	_____

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.
Lime cost prorated for application every 3rd year.

Table 7.B Summary of estimated costs and returns per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Grain Sorghum	bu	3.57	100.0000	357.00	_____

TOTAL INCOME				357.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	93.52	1.0000	93.52	_____
HERBICIDES	acre	69.68	1.0000	69.68	_____
INSECTICIDES	acre	42.99	1.0000	42.99	_____
SEED/PLANTS	acre	17.64	1.0000	17.64	_____
ADJUVANTS	acre	0.98	1.0000	0.98	_____
HAULING	acre	25.00	1.0000	25.00	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1772	1.61	_____
OPERATOR LABOR	hour	13.51	0.4803	6.50	_____
UNALLOCATED LABOR	hour	13.51	0.4322	5.84	_____
DIESEL FUEL	gal	1.80	4.9745	8.97	_____
REPAIR & MAINTENANCE	acre	10.62	1.0000	10.62	_____
INTEREST ON OP. CAP.	acre	7.54	1.0000	7.54	_____

TOTAL DIRECT EXPENSES				337.36	_____
RETURNS ABOVE DIRECT EXPENSES				19.64	_____
TOTAL FIXED EXPENSES				38.37	_____

TOTAL SPECIFIED EXPENSES				375.73	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-18.73	_____

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.

Lime cost prorated for application every 3rd year.

Table 7.C Estimated resource use for field operations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, 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				
Lime (Spread)	ton			0.33	Oct	0.6660				
Disk Harrow	24'	MFWD 170	0.081	1.00	Nov		0.08	0.08	0.08	0.07
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.3000				
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Apr		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.3000				
Potash (60% K2O)	cwt					1.0000				
Field Cultivate Fld	32'	MFWD 170	0.046	1.00	Apr		0.04	0.04	0.04	0.04
Plant - Folding	12R-30	MFWD 170	0.062	1.00	Apr		0.06	0.06	0.12	0.05
Sorghum Concept+ Po	lb					4.5000				
Sprayer 800gal	80' 250hp		0.013	1.00	Apr			0.01	0.01	0.01
Lexar	pt					6.0000				
Sorghum Consultant	acre			1.00	May	1.0000				
Fert Appl (Liquid)	12R-30	MFWD 170	0.078	1.00	May		0.07	0.07	0.11	0.07
UAN + Sulfur (28%)	gal					38.2883				
Sprayer 800gal	80' 250hp		0.013	1.00	Jun			0.01	0.01	0.01
Sivanto Prime	oz					4.0000				
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01
Karate Z	oz					1.5000				
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01
Prevathon	oz					14.0000				
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01
Sivanto Prime	oz					4.0000				
Header Wheat/Sorghum	25' Rigid	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09
Haul Sorghum	bu					100.0000				
TOTALS							0.48	0.41	0.65	0.43

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.

Lime cost prorated for application every 3rd year.

Table 7.D Estimated costs for field operations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, 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
Lime (Spread)	ton	30.64						1.46	32.10	32.10
Disk Harrow	24'		1.29	1.33	2.11			0.21	4.94	4.45 9.39
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62	4.62
2,4-D Amine 4	pt	4.80						0.15	4.95	4.95
Select Max	pt	12.64						0.40	13.04	13.04
Surfactant	pt	0.98						0.03	1.01	1.01
Spin Spreader	5 ton		0.66	0.49	1.46			0.06	2.67	1.86 4.53
Phosphorus(46% P2O5)	cwt	24.38						0.58	24.96	24.96
Potash (60% K2O)	cwt	18.98						0.45	19.43	19.43
Field Cultivate Fld	32'		0.73	0.67	1.20			0.06	2.66	3.30 5.96
Plant - Folding	12R-30		0.99	1.79	2.18			0.12	5.08	4.75 9.83
Sorghum Concept+ Po	lb	17.64						0.42	18.06	18.06
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.02	0.91	1.18 2.09
Lexar	pt	47.76						1.13	48.89	48.89
Sorghum Consultant	acre	6.00						0.12	6.12	6.12
Fert Appl (Liquid)	12R-30		1.24	1.43	2.38			0.10	5.15	3.55 8.70
UAN + Sulfur (28%)	gal	50.16						0.99	51.15	51.15
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18 2.08
Sivanto Prime	oz	10.20						0.16	10.36	10.36
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18 2.08
Karate Z	oz	4.11						0.05	4.16	4.16
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18 2.08
Prevathon	oz	18.48						0.22	18.70	18.70
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18 2.08
Sivanto Prime	oz	10.20						0.12	10.32	10.32
Header Wheat/Sorghum	25' Rigid		2.51	4.01	2.62			0.04	9.18	14.56 23.74
Haul Sorghum	bu	25.00						0.10	25.10	25.10
TOTALS		296.28	8.97	10.62	13.95	0.00	7.54	337.36	38.37	375.73

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.

Lime cost prorated for application every 3rd year.

Table 7.E Estimated monthly income and expense flows per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, 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	0.00	357.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	43.36	50.16	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	21.92	0.00	47.76	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.20	32.79	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	17.64	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00
CUSTOM LIME	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	2.11	0.00	0.00	0.00	0.00	5.24	2.38	0.40	1.20	0.00	2.62
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	1.29	0.00	0.00	0.00	0.00	2.69	1.24	0.31	0.93	0.00	2.51
REPAIR & MAINTENANCE	0.00	1.33	0.00	0.00	0.00	0.00	3.13	1.43	0.18	0.54	0.00	4.01
INTEREST ON OP. CAP.	1.62	0.21	0.00	0.00	0.93	0.00	2.84	1.21	0.17	0.42	0.00	0.14
TOTAL DIRECT EXPENSES	35.59	4.94	0.00	0.00	30.33	0.00	122.66	62.42	11.26	35.88	0.00	34.28
NET INCOME	-35.59	-4.94	0.00	0.00	-30.33	0.00	-122.66	-62.42	-11.26	-35.88	0.00	322.72
NET INCOME TO DATE	-35.59	-40.53	-40.53	-40.53	-70.86	-70.86	-193.52	-255.94	-267.20	-303.08	-303.08	19.64

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.

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 7.F Estimated returns for various price/yield combinations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Grain Sorghum			2.67	2.85	3.03	3.21	3.39	3.57	3.74	3.92	4.10	4.28	4.46
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu	-190 -229	-182 -220	-173 -211	-164 -202	-155 -193	-146 -184	-137 -175	-128 -166	-119 -157	-110 -148	-101 -140
60	60.00	bu	-166 -205	-155 -194	-145 -183	-134 -172	-123 -162	-113 -151	-102 -140	-91 -130	-80 -119	-70 -108	-59 -97
70	70.00	bu	-142 -180	-129 -168	-117 -155	-104 -143	-92 -130	-79 -118	-67 -105	-54 -93	-42 -80	-29 -68	-17 -55
80	80.00	bu	-118 -156	-103 -142	-89 -127	-75 -113	-61 -99	-46 -85	-32 -70	-18 -56	-3 -42	10 -27	24 -13
90	90.00	bu	-93 -132	-77 -116	-61 -100	-45 -84	-29 -67	-13 -51	2 -35	18 -19	34 -3	50 12	66 28
100	100.00	bu	-69 -107	-51 -90	-33 -72	-16 -54	1 -36	19 -18	37 -0	55 16	73 34	91 52	108 70
110	110.00	bu	-45 -83	-25 -64	-6 -44	13 -24	33 -5	52 14	72 34	92 53	111 73	131 93	151 112
120	120.00	bu	-21 -59	0 -38	21 -16	43 4	64 26	86 47	107 69	128 90	150 111	171 133	193 154
130	130.00	bu	3 -35	26 -11	49 11	72 34	96 57	119 80	142 104	165 127	188 150	212 173	235 196
140	140.00	bu	27 -10	52 14	77 39	102 64	127 89	152 114	177 139	202 164	227 189	252 213	277 238
150	150.00	bu	51 13	78 40	105 66	132 93	158 120	185 147	212 173	239 200	265 227	292 254	319 281

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
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.50	2.0000	13.00	_____
App by Air (3 gal)	appl	5.00	1.0000	5.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.0000	18.75	_____
Potash (60% K2O)	cwt	18.98	0.7500	14.24	_____
Fert 41-0-0-4	cwt	13.50	3.0480	41.15	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	4.5000	19.13	_____
Prosaro	oz	5.57	8.0000	44.56	_____
HERBICIDES					
Axiom	oz	1.92	10.0000	19.20	_____
Harmony Extra SG	oz	13.79	0.7500	10.34	_____
Axial XL	oz	1.17	16.4000	19.19	_____
INSECTICIDES					
Karate Z	oz	2.74	1.5000	4.11	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.29	90.0000	26.10	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	3.0480	21.34	_____
HAULING					
Haul Wheat	bu	0.26	70.0000	18.20	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Wheat Consultant	acre	5.50	1.0000	5.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.2648	3.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1363	1.23	_____
UNALLOCATED LABOR	hour	13.45	0.2936	3.95	_____
DIESEL FUEL					
Tractors	gal	1.80	2.3178	4.17	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	3.52	1.0000	3.52	_____
Tractors	acre	1.26	1.0000	1.26	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	8.48	1.0000	8.48	_____
TOTAL DIRECT EXPENSES				347.34	_____
FIXED EXPENSES					
Implements	acre	7.79	1.0000	7.79	_____
Tractors	acre	7.97	1.0000	7.97	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				29.53	_____
TOTAL SPECIFIED EXPENSES				376.87	_____

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.

Lime cost prorated for application every 3rd year.

Table 8.B Summary of estimated costs and returns per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Wheat	bu	4.71	70.0000	329.70	_____

TOTAL INCOME				329.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	18.00	1.0000	18.00	_____
FERTILIZERS	acre	74.13	1.0000	74.13	_____
FUNGICIDES	acre	63.69	1.0000	63.69	_____
HERBICIDES	acre	48.73	1.0000	48.73	_____
INSECTICIDES	acre	4.11	1.0000	4.11	_____
SEED/PLANTS	acre	26.10	1.0000	26.10	_____
CUSTOM FERTILIZE	acre	21.34	1.0000	21.34	_____
HAULING	acre	18.20	1.0000	18.20	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	5.50	1.0000	5.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1363	1.23	_____
OPERATOR LABOR	hour	13.51	0.3670	4.96	_____
UNALLOCATED LABOR	hour	13.45	0.2936	3.95	_____
DIESEL FUEL	gal	1.80	3.7114	6.68	_____
REPAIR & MAINTENANCE	acre	8.27	1.0000	8.27	_____
INTEREST ON OP. CAP.	acre	8.48	1.0000	8.48	_____

TOTAL DIRECT EXPENSES				347.34	_____
RETURNS ABOVE DIRECT EXPENSES				-17.64	_____
TOTAL FIXED EXPENSES				29.53	_____

TOTAL SPECIFIED EXPENSES				376.87	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-47.17	_____

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.

Lime cost prorated for application every 3rd year.

Table 8.C Estimated resource use for field operations, per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, 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				
Lime (Spread)	ton			0.33	Sep	0.6660				
Disk Harrow	24'	MFWD 170	0.081	1.00	Sep		0.08	0.08	0.08	0.06
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Sep		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)	cwt					1.0000				
Potash (60% K2O)	cwt					0.7500				
Field Cultivate Fld	32'	MFWD 170	0.046	1.00	Sep		0.04	0.04	0.04	0.03
Grain Drill	20'	MFWD 170	0.094	1.00	Oct		0.09	0.09	0.18	0.07
Wheat Seed Private	lb					90.0000				
CruiserMaxx	oz					4.5000				
Wheat Consultant	acre			1.00	Oct	1.0000				
App by Air (5 gal)	appl			1.00	Nov	1.0000				
Axiom	oz					10.0000				
App by Air (3 gal)	appl			1.00	Feb	1.0000				
Karate Z	oz					1.5000				
Harmony Extra SG	oz					0.7500				
Axial XL	oz					16.4000				
App Fert by Air	cwt			1.00	Feb	1.5240				
Fert 41-0-0-4	cwt					1.5240				
App Fert by Air	cwt			1.00	Mar	1.5240				
Fert 41-0-0-4	cwt					1.5240				
App by Air (5 gal)	appl			1.00	Apr	1.0000				
Prosaro	oz					8.0000				
Header Wheat/Sorghum	25' Rigid	265 hp	0.102	1.00	Jun		0.10	0.10	0.10	0.08
Haul Wheat	bu					70.0000				
TOTALS							0.36	0.36	0.50	0.29

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.
Lime cost prorated for application every 3rd year.

Table 8.D Estimated costs for field operations, per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, 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						0.13	3.46	3.46
Lime (Spread)	ton	30.64						1.21	31.85	31.85
Disk Harrow	24'		1.29	1.33	1.99			0.18	4.79	4.45 9.24
Spin Spreader	5 ton		0.66	0.49	1.40			0.10	2.65	1.86 4.51
Phosphorus(46% P2O5)	cwt	18.75						0.74	19.49	19.49
Potash (60% K2O)	cwt	14.24						0.56	14.80	14.80
Field Cultivate Fld	32'		0.73	0.67	1.13			0.10	2.63	3.30 5.93
Grain Drill	20'		1.49	1.77	3.14			0.23	6.63	5.36 11.99
Wheat Seed Private	lb	26.10						0.93	27.03	27.03
CruiserMaxx	oz	19.13						0.68	19.81	19.81
Wheat Consultant	acre	5.50						0.20	5.70	5.70
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Axiom	oz	19.20						0.61	19.81	19.81
App by Air (3 gal)	appl	5.00						0.10	5.10	5.10
Karate Z	oz	4.11						0.08	4.19	4.19
Harmony Extra SG	oz	10.34						0.20	10.54	10.54
Axial XL	oz	19.19						0.38	19.57	19.57
App Fert by Air	cwt	10.67						0.21	10.88	10.88
Fert 41-0-0-4	cwt	20.57						0.41	20.98	20.98
App Fert by Air	cwt	10.67						0.17	10.84	10.84
Fert 41-0-0-4	cwt	20.57						0.33	20.90	20.90
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Prosaro	oz	44.56						0.53	45.09	45.09
Header Wheat/Sorghum	25' Rigid		2.51	4.01	2.48			0.04	9.04	14.56 23.60
Haul Wheat	bu	18.20						0.07	18.27	18.27
TOTALS		313.77	6.68	8.27	10.14	0.00	8.48	347.34	29.53	376.87

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.

Lime cost prorated for application every 3rd year.

Table 8.E Estimated monthly income and expense flows per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, Mississippi, 2018

ITEM	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	329.70
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	5.00	0.00	6.50	0.00	0.00
FERTILIZERS	0.00	0.00	32.99	0.00	0.00	0.00	0.00	20.57	20.57	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	19.13	0.00	0.00	0.00	0.00	0.00	44.56	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	19.20	0.00	0.00	29.53	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.11	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	26.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.67	10.67	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.20
CUSTOM LIME	0.00	0.00	30.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	4.52	3.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	2.68	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.51
REPAIR & MAINTENANCE	0.00	0.00	2.49	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.01
INTEREST ON OP. CAP.	0.00	0.00	3.02	2.04	0.82	0.00	0.00	1.38	0.50	0.61	0.00	0.11
TOTAL DIRECT EXPENSES	0.00	0.00	79.67	59.17	26.52	0.00	0.00	71.26	31.74	51.67	0.00	27.31
NET INCOME	0.00	0.00	-79.67	-59.17	-26.52	0.00	0.00	-71.26	-31.74	-51.67	0.00	302.39
NET INCOME TO DATE	0.00	0.00	-79.67	-138.84	-165.36	-165.36	-165.36	-236.62	-268.36	-320.03	-320.03	-17.64

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.

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Wheat			3.53	3.76	4.00	4.23	4.47	4.71	4.94	5.18	5.41	5.65	5.88
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	35.00	bu	-214 -244	-206 -235	-198 -227	-189 -219	-181 -211	-173 -202	-165 -194	-156 -186	-148 -178	-140 -169	-132 -161
60	42.00	bu	-191 -221	-181 -211	-171 -201	-161 -191	-152 -181	-142 -171	-132 -161	-122 -151	-112 -142	-102 -132	-92 -122
70	49.00	bu	-168 -198	-157 -186	-145 -175	-134 -163	-122 -152	-111 -140	-99 -129	-87 -117	-76 -105	-64 -94	-53 -82
80	56.00	bu	-145 -175	-132 -162	-119 -149	-106 -135	-93 -122	-79 -109	-66 -96	-53 -83	-40 -69	-27 -56	-13 -43
90	63.00	bu	-122 -152	-108 -137	-93 -122	-78 -107	-63 -93	-48 -78	-33 -63	-19 -48	-4 -33	10 -18	25 -4
100	70.00	bu	-100 -129	-83 -113	-67 -96	-50 -80	-34 -63	-17 -47	-1 -30	15 -14	31 2	48 18	64 35
110	77.00	bu	-77 -106	-59 -88	-40 -70	-22 -52	-4 -34	13 -16	31 2	49 20	67 38	86 56	104 74
120	84.00	bu	-54 -83	-34 -64	-14 -44	5 -24	24 -4	44 15	64 34	84 54	103 74	123 94	143 114
130	91.00	bu	-31 -60	-9 -39	11 -18	32 3	54 24	75 46	97 67	118 89	140 110	161 131	182 153
140	98.00	bu	-8 -37	14 -14	37 8	60 31	83 54	106 77	130 100	153 123	176 146	199 169	222 192
150	105.00	bu	14 -15	39 9	63 34	88 59	113 83	138 108	162 133	187 158	212 182	236 207	261 232

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	0.62	0.06	0.38	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
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--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			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
									Imp.	P.U.		Imp.	P.U.	
			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 Clrfld 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
 Irrigation with a 1/4-mile center pivot system
 135-acre system, 7.5 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				0.27		0.01	0.28		0.28
Maintenance										
IRRIGATE LABOR	hour				1.07		0.03	1.10		1.10
Apply Water										
IRRIGATE LABOR	hour				0.15			0.15		0.15
Apply Water										
IRRIGATE LABOR	hour				0.20			0.20		0.20
Apply Water										
IRRIGATE LABOR	hour				0.15			0.15		0.15
Pivot, 1/4 CP	each			13.48			0.27	13.75	54.09	67.84
Well & Pump, 1/4 CP	each			3.50			0.07	3.57	10.35	13.92
Engine, 1/4 CP, 65	each								9.99	9.99
June Irr. 3app@.75"	ac-in		6.05	1.40			0.15	7.60		7.60
July Irr. 4app@.75"	ac-in		8.06	1.87			0.16	10.09		10.09
Aug Irr. 3app@.75"	ac-in		6.05	1.40			0.09	7.54		7.54
TOTALS		0.00	20.16	21.65	1.84	0.00	0.78	44.43	74.43	118.86

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

Appendix Table 9 Estimated costs for field operations, per acre
 Corn irrigated with roll-out pipe
 160-acre system, 13 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-----											
Land Plane	50'x16'		0.67	0.31	0.51			0.07	1.56	1.58	3.14
Set Up Engine											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Ditcher (1m/160a)			0.15	0.06	0.13			0.01	0.35	0.31	0.66
Roll-Out Pipe	ft	8.25						0.13	8.38		8.38
Lay Roll-out Pipe											
Pipe Spool 160ac	1/4m roll		0.20	0.09	0.40			0.01	0.70	0.66	1.36
IRRIGATE LABOR	hour				1.81			0.03	1.84		1.84
Apply Water											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Apply Water											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Apply Water											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Apply Water											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Pick Up Pipe											
Pipe Spool 160ac	1/4m roll		0.30	0.13	0.59			0.01	1.03	0.98	2.01
Land Forming (\$450)	each									31.93	31.93
Well & Pump, Furrow	each			2.96				0.05	3.01	8.74	11.75
Main Line Pipe	each									4.32	4.32
Engine, RPF, Corn	each									8.43	8.43
1st June Irrigation	ac-in		4.77	0.98				0.09	5.84		5.84
2nd June Irrigation	ac-in		4.77	0.98				0.09	5.84		5.84
3rd June Irrigation	ac-in		4.77	0.98				0.09	5.84		5.84
July Irrigation	ac-in		4.77	0.98				0.07	5.82		5.82
TOTALS		8.25	20.40	7.47	4.59	0.00		0.65	41.36	56.95	98.31

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

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