

**CORN, GRAIN  
SORGHUM & WHEAT  
2017  
PLANNING BUDGETS**

**Mississippi State University  
Department of Agricultural Economics  
Budget Report 2016-03**

**October 2016**



## 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 2017 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

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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.

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

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# 2017 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 2016. (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 2016 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", 210 bu yield goal  
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2017

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	21.88	1.8000	39.38	_____
Potash (60% K2O)	cwt	16.97	1.5000	25.46	_____
Fert 10-34-0	gal	3.33	4.2919	14.29	_____
Zinc Plus	pt	2.99	2.0000	5.98	_____
UAN + Sulfur (28%)	gal	1.61	32.1712	51.80	_____
UAN (32%)	gal	1.58	39.5570	62.50	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.18	0.5000	5.59	_____
Select Max	pt	14.99	1.0000	14.99	_____
Atrazine 4L	pt	1.95	4.0000	7.80	_____
Halex GT	pt	7.60	3.6000	27.36	_____
INSECTICIDES					
Bifenthrin	oz	1.03	1.2800	1.32	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.89	34.0000	132.26	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	_____
HAULING					
Haul Corn	bu	0.23	210.0000	48.30	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.4242	5.56	_____
Harvesters	hour	13.14	0.1009	1.33	_____
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	13.13	0.4020	5.28	_____
DIESEL FUEL					
Tractors	gal	1.70	4.7302	8.05	_____
Harvesters	gal	1.70	1.6890	2.87	_____
Roll-Out Pipe Irr.	gal	1.70	10.5901	18.00	_____
REPAIR & MAINTENANCE					
Implements	acre	7.53	1.0000	7.53	_____
Tractors	acre	2.79	1.0000	2.79	_____
Harvesters	acre	3.53	1.0000	3.53	_____
Roll-Out Pipe Irr.	acre	6.36	1.0000	6.36	_____
INTEREST ON OP. CAP.	acre	15.03	1.0000	15.03	_____
TOTAL DIRECT EXPENSES				585.00	_____
FIXED EXPENSES					
Implements	acre	11.46	1.0000	11.46	_____
Tractors	acre	17.59	1.0000	17.59	_____
Harvesters	acre	13.94	1.0000	13.94	_____
Roll-Out Pipe Irr.	acre	51.53	1.0000	51.53	_____
TOTAL FIXED EXPENSES				94.52	_____
TOTAL SPECIFIED EXPENSES				679.52	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 1.B Summary of estimated costs and returns per acre  
 Corn, stale seedbed, BtRR, 12-row 38", 210 bu yield goal  
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.62	210.0000	760.20	_____
				-----	
TOTAL INCOME				760.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	199.41	1.0000	199.41	_____
HERBICIDES	acre	60.22	1.0000	60.22	_____
INSECTICIDES	acre	1.32	1.0000	1.32	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	132.26	1.0000	132.26	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	48.30	1.0000	48.30	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1354	1.22	_____
IRRIGATE LABOR	hour	9.06	0.3875	3.53	_____
OPERATOR LABOR	hour	13.14	0.5252	6.89	_____
UNALLOCATED LABOR	hour	13.13	0.4020	5.28	_____
DIESEL FUEL	gal	1.70	17.0094	28.92	_____
REPAIR & MAINTENANCE	acre	20.21	1.0000	20.21	_____
INTEREST ON OP. CAP.	acre	15.03	1.0000	15.03	_____
				-----	
TOTAL DIRECT EXPENSES				585.00	_____
RETURNS ABOVE DIRECT EXPENSES				175.20	_____
TOTAL FIXED EXPENSES				94.52	_____
				-----	
TOTAL SPECIFIED EXPENSES				679.52	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				80.68	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 1.C Estimated resource use for field operations, per acre  
 Corn, stale seedbed, BtRR, 12-row 38", 210 bu yield goal  
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2017

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	0.3300				
Lime (Spread)	ton			0.33	Oct	0.6600				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.8000				
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				
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				
App by Air ( 3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2800				
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					210.0000				
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 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 1.D Estimated costs for field operations, per acre  
 Corn, stale seedbed, BtRR, 12-row 38", 210 bu yield goal  
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.30						0.16	3.46		3.46
Lime (Spread)	ton	30.36						1.44	31.80		31.80
Spin Spreader	5 ton		0.83	0.57	1.43			0.13	2.96	2.37	5.33
Phosphorus (46% P2O5)	cwt	39.38						1.87	41.25		41.25
Potash (60% K2O)	cwt	25.46						1.21	26.67		26.67
Bed/Disk w/roller	12R-30/40		1.23	1.12	1.56			0.19	4.10	4.51	8.61
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	5.59						0.18	5.77		5.77
Select Max	pt	14.99						0.47	15.46		15.46
Plant & Pre-Folding	12R-38		1.05	1.96	1.81			0.13	4.95	5.35	10.30
Corn Seed BtRR	thous	132.26						3.66	135.92		135.92
Fert 10-34-0	gal	14.29						0.40	14.69		14.69
Zinc Plus	pt	5.98						0.17	6.15		6.15
Custom Apply Fert	acre	7.00						0.17	7.17		7.17
UAN + Sulfur (28%)	gal	51.80						1.23	53.03		53.03
Spray (Broadcast)	60'		0.56	0.44	0.83			0.04	1.87	1.51	3.38
Atrazine 4L	pt	7.80						0.19	7.99		7.99
Halex GT	pt	27.36						0.65	28.01		28.01
Corn Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-38		1.02	0.96	1.52			0.07	3.57	2.91	6.48
UAN (32%)	gal	62.50						1.24	63.74		63.74
App by Air ( 3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.32						0.03	1.35		1.35
Header - Corn	8R-38		2.87	5.03	2.52			0.04	10.46	16.20	26.66
Grain Cart Corn	700 bu		0.50	0.42	0.63			0.01	1.56	1.53	3.09
Haul Corn	bu	48.30						0.19	48.49		48.49
Stalk Shredder Flex	20'		1.62	2.71	2.06			0.03	6.42	4.84	11.26
Roll-Out Pipe Irr.	acre	8.25	19.24	7.00	4.56			0.64	39.69	55.30	94.99
TOTALS		503.92	28.92	20.21	16.92	0.00	15.03	585.00	94.52	679.52	

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 1.E Estimated monthly income and expense flows per acre  
 Corn, stale seedbed, BtRR, 12-row 38", 210 bu yield goal  
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2017

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	760.20
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	64.84	0.00	0.00	0.00	0.00	20.27	51.80	62.50	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	25.06	0.00	35.16	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	1.32	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	132.26	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	7.00	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	48.30
CUSTOM LIME	30.36	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	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.49	0.00	0.00	0.00	0.00	1.81	0.83	1.75	3.01	0.23	0.59	5.21
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	2.69	0.00	0.00	0.00	0.00	1.05	0.56	1.02	13.83	4.50	0.28	4.99
REPAIR & MAINTENANCE	2.02	0.00	0.00	0.00	0.00	1.96	0.44	0.96	5.55	0.98	0.14	8.16
INTEREST ON OP. CAP.	5.07	0.00	0.00	0.00	1.00	4.36	2.28	1.48	0.49	0.07	0.01	0.27
TOTAL DIRECT EXPENSES	111.77	0.00	0.00	0.00	32.56	161.71	98.07	76.03	31.13	5.78	1.02	66.93
NET INCOME	-111.77	0.00	0.00	0.00	-32.56	-161.71	-98.07	-76.03	-31.13	-5.78	-1.02	693.27
NET INCOME TO DATE	-111.77	-111.77	-111.77	-111.77	-144.33	-306.04	-404.11	-480.14	-511.27	-517.05	-518.07	175.20

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> 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", 210 bu yield goal  
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2017

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Corn	2.71	2.89	3.07	3.25	3.43	3.62	3.80	3.98	4.16	4.34	4.52		
PERCENT	YIELD	UNIT	dollars										
50	105.00	bu	-275 -370	-256 -351	-237 -332	-218 -313	-199 -294	-180 -275	-161 -256	-142 -237	-123 -218	-104 -199	-85 -180
60	126.00	bu	-223 -318	-200 -295	-177 -272	-155 -249	-132 -226	-109 -204	-86 -181	-63 -158	-41 -135	-18 -112	4 -89
70	147.00	bu	-171 -265	-144 -239	-118 -212	-91 -186	-64 -159	-38 -132	-11 -106	14 -79	41 -53	68 -26	94 0
80	168.00	bu	-119 -213	-88 -183	-58 -152	-27 -122	2 -92	32 -61	63 -31	93 -0	124 29	154 59	184 90
90	189.00	bu	-67 -161	-32 -127	1 -93	35 -58	69 -24	104 9	138 43	172 77	206 112	240 146	275 180
100	210.00	bu	-14 -109	23 -71	61 -33	99 4	137 42	175 80	213 118	251 156	289 194	327 232	365 270
110	231.00	bu	37 -57	79 -15	120 26	162 68	204 110	246 151	288 193	329 235	371 277	413 319	455 360
120	252.00	bu	89 -5	135 40	180 86	226 131	271 177	317 223	363 268	408 314	454 359	499 405	545 451
130	273.00	bu	141 47	191 96	240 145	289 195	339 244	388 294	438 343	487 393	536 442	586 491	635 541
140	294.00	bu	193 99	247 152	300 205	353 258	406 312	459 365	513 418	566 471	619 525	672 578	725 631
150	315.00	bu	245 151	302 208	360 265	417 322	474 379	531 436	588 493	645 550	702 607	759 664	816 721

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.  
 Note: Cost of production estimates are based on 2016 input prices.

Table 2.A Estimated costs per acre  
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"  
 150 bu yield goal, Delta Area, Mississippi, 2017

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	21.88	1.0870	23.78	_____
Potash (60% K2O)	cwt	16.97	0.8300	14.09	_____
Fert 10-34-0	gal	3.33	4.2919	14.29	_____
Zinc Plus	pt	2.99	2.0000	5.98	_____
UAN + Sulfur (28%)	gal	1.61	19.3063	31.08	_____
UAN (32%)	gal	1.58	29.6700	46.88	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.18	0.5000	5.59	_____
Select Max	pt	14.99	1.0000	14.99	_____
Atrazine 4L	pt	1.95	4.0000	7.80	_____
Halex GT	pt	7.60	3.6000	27.36	_____
INSECTICIDES					
Bifenthrin	oz	1.03	1.2800	1.32	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.89	28.0000	108.92	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	_____
HAULING					
Haul Corn	bu	0.23	150.0000	34.50	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.3457	4.53	_____
Harvesters	hour	13.14	0.1009	1.33	_____
HAND LABOR					
Implements	hour	9.06	0.1354	1.22	_____
UNALLOCATED LABOR	hour	13.13	0.4020	5.28	_____
DIESEL FUEL					
Tractors	gal	1.70	4.0040	6.81	_____
Harvesters	gal	1.70	1.3770	2.34	_____
REPAIR & MAINTENANCE					
Implements	acre	7.33	1.0000	7.33	_____
Tractors	acre	2.35	1.0000	2.35	_____
Harvesters	acre	3.40	1.0000	3.40	_____
INTEREST ON OP. CAP.	acre	11.62	1.0000	11.62	_____
TOTAL DIRECT EXPENSES				441.43	_____
FIXED EXPENSES					
Implements	acre	10.44	1.0000	10.44	_____
Tractors	acre	14.84	1.0000	14.84	_____
Harvesters	acre	13.40	1.0000	13.40	_____
TOTAL FIXED EXPENSES				38.68	_____
TOTAL SPECIFIED EXPENSES				480.11	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 2.B Summary of estimated costs and returns per acre  
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"  
 150 bu yield goal, Delta Area, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.62	150.0000	543.00	_____
				-----	
TOTAL INCOME				543.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	136.10	1.0000	136.10	_____
HERBICIDES	acre	60.22	1.0000	60.22	_____
INSECTICIDES	acre	1.32	1.0000	1.32	_____
SEED/PLANTS	acre	108.92	1.0000	108.92	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	34.50	1.0000	34.50	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1354	1.22	_____
OPERATOR LABOR	hour	13.14	0.4466	5.86	_____
UNALLOCATED LABOR	hour	13.13	0.4020	5.28	_____
DIESEL FUEL	gal	1.70	5.3810	9.15	_____
REPAIR & MAINTENANCE	acre	13.08	1.0000	13.08	_____
INTEREST ON OP. CAP.	acre	11.62	1.0000	11.62	_____
				-----	
TOTAL DIRECT EXPENSES				441.43	_____
RETURNS ABOVE DIRECT EXPENSES				101.57	_____
TOTAL FIXED EXPENSES				38.68	_____
				-----	
TOTAL SPECIFIED EXPENSES				480.11	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				62.89	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 2.C Estimated resource use for field operations, per acre  
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"  
 150 bu yield goal, Delta Area, Mississippi, 2017

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	0.3300				
Lime (Spread)	ton			0.33	Oct	0.6600				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.0870				
Potash (60% K2O)	cwt					0.8300				
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				
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				
App by Air ( 3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2800				
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					150.0000				
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 2016 input prices.

- Fertilization decisions should be based on soil tests.**
- Soil test cost is prorated for a test every 3<sup>rd</sup> year.**
- Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 2.D Estimated costs for field operations, per acre  
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"  
 150 bu yield goal, Delta Area, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.30						0.16	3.46		3.46
Lime (Spread)	ton	30.36						1.44	31.80		31.80
Spin Spreader	5 ton		0.83	0.57	1.43			0.13	2.96	2.37	5.33
Phosphorus (46% P2O5)	cwt	23.78						1.13	24.91		24.91
Potash (60% K2O)	cwt	14.09						0.67	14.76		14.76
Bed/Disk w/roller	12R-30/40		1.23	1.12	1.56			0.19	4.10	4.51	8.61
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	5.59						0.18	5.77		5.77
Select Max	pt	14.99						0.47	15.46		15.46
Plant & Pre-Folding	12R-38		1.05	1.96	1.81			0.13	4.95	5.35	10.30
Corn Seed BtRR	thous	108.92						3.02	111.94		111.94
Fert 10-34-0	gal	14.29						0.40	14.69		14.69
Zinc Plus	pt	5.98						0.17	6.15		6.15
Custom Apply Fert	acre	7.00						0.17	7.17		7.17
UAN + Sulfur (28%)	gal	31.08						0.74	31.82		31.82
Spray (Broadcast)	60'		0.56	0.44	0.83			0.04	1.87	1.51	3.38
Atrazine 4L	pt	7.80						0.19	7.99		7.99
Halex GT	pt	27.36						0.65	28.01		28.01
Corn Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-38		1.02	0.96	1.52			0.07	3.57	2.91	6.48
UAN (32%)	gal	46.88						0.93	47.81		47.81
App by Air ( 3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.32						0.03	1.35		1.35
Header - Corn	8R-38		2.34	4.90	2.52			0.04	9.80	15.66	25.46
Grain Cart Corn	700 bu		0.50	0.42	0.63			0.01	1.56	1.53	3.09
Haul Corn	bu	34.50						0.14	34.64		34.64
Stalk Shredder Flex	20'		1.62	2.71	2.06			0.03	6.42	4.84	11.26
TOTALS		395.22	9.15	13.08	12.36	0.00	11.62	441.43	38.68	480.11	

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 2.E Estimated monthly income and expense flows per acre  
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"  
 150 bu yield goal, Delta Area, Mississippi, 2017

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	543.00
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	37.87	0.00	0.00	0.00	0.00	20.27	31.08	46.88	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	25.06	0.00	35.16	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	1.32	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	108.92	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	7.00	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	34.50
CUSTOM LIME	30.36	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	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.99	0.00	0.00	0.00	0.00	1.81	0.83	1.52	0.00	0.00	0.00	5.21
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	2.06	0.00	0.00	0.00	0.00	1.05	0.56	1.02	0.00	0.00	0.00	4.46
REPAIR & MAINTENANCE	1.69	0.00	0.00	0.00	0.00	1.96	0.44	0.96	0.00	0.00	0.00	8.03
INTEREST ON OP. CAP.	3.72	0.00	0.00	0.00	1.00	3.72	1.79	1.17	0.00	0.00	0.00	0.22
TOTAL DIRECT EXPENSES	81.99	0.00	0.00	0.00	32.56	137.73	76.86	59.87	0.00	0.00	0.00	52.42
NET INCOME	-81.99	0.00	0.00	0.00	-32.56	-137.73	-76.86	-59.87	0.00	0.00	0.00	490.58
NET INCOME TO DATE	-81.99	-81.99	-81.99	-81.99	-114.55	-252.28	-329.14	-389.01	-389.01	-389.01	-389.01	101.57

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 2.F Estimated returns for various price/yield combinations, per acre  
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"  
 150 bu yield goal, Delta Area, Mississippi, 2017

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Corn			2.71	2.89	3.07	3.25	3.43	3.62	3.80	3.98	4.16	4.34	4.52
PERCENT	YIELD	UNIT	-----dollars-----										
50	75.00	bu	-220 -259	-206 -245	-193 -232	-179 -218	-166 -204	-152 -191	-139 -177	-125 -164	-111 -150	-98 -136	-84 -123
60	90.00	bu	-183 -221	-166 -205	-150 -189	-134 -173	-118 -156	-101 -140	-85 -124	-69 -107	-52 -91	-36 -75	-20 -59
70	105.00	bu	-145 -184	-126 -165	-107 -146	-88 -127	-69 -108	-50 -89	-31 -70	-12 -51	6 -32	25 -13	44 5
80	120.00	bu	-108 -147	-86 -125	-65 -103	-43 -82	-21 -60	-0 -38	21 -17	43 4	65 26	86 48	108 69
90	135.00	bu	-71 -110	-47 -85	-22 -61	1 -36	26 -12	50 12	75 36	99 60	124 85	148 109	172 134
100	150.00	bu	-34 -72	-7 -45	20 -18	47 8	74 35	101 62	128 90	155 117	183 144	210 171	237 198
110	165.00	bu	3 -35	32 -5	62 24	92 53	122 83	152 113	182 143	212 173	242 203	271 233	301 263
120	180.00	bu	40 1	72 34	105 66	138 99	170 131	203 164	235 197	268 229	300 262	333 294	366 327
130	195.00	bu	77 38	112 74	148 109	183 144	218 180	254 215	289 250	324 285	359 321	395 356	430 391
140	210.00	bu	114 76	152 114	190 152	228 190	266 228	304 266	342 304	380 342	418 380	456 418	494 456
150	225.00	bu	152 113	192 154	233 194	274 235	315 276	355 317	396 357	437 398	477 439	518 479	559 520

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 2016 input prices.

Table 3.A Estimated costs per acre  
 Corn, conventional tillage, RR seed, 12-row 38",  
 210 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2017

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	1.0000	5.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	21.88	1.8000	39.38	_____
Potash (60% K2O)	cwt	16.97	1.5000	25.46	_____
UAN + Sulfur (28%)	gal	1.61	32.1712	51.80	_____
UAN (32%)	gal	1.58	39.5570	62.50	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.18	0.5000	5.59	_____
Select Max	pt	14.99	1.0000	14.99	_____
Atrazine 4L	pt	1.95	4.0000	7.80	_____
Halex GT	pt	7.60	3.6000	27.36	_____
INSECTICIDES					
Intrepid 2F	oz	2.05	4.0000	8.20	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.17	34.0000	107.78	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	_____
HAULING					
Haul Corn	bu	0.23	210.0000	48.30	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.6930	9.09	_____
Harvesters	hour	13.14	0.1009	1.33	_____
Self-Propelled	hour	13.14	0.0176	0.23	_____
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	13.15	0.6597	8.68	_____
DIESEL FUEL					
Tractors	gal	1.70	7.8429	13.34	_____
Harvesters	gal	1.70	1.3770	2.34	_____
Self-Propelled	gal	1.70	0.1586	0.27	_____
Roll-Out Pipe Irr.	gal	1.70	10.5901	18.00	_____
REPAIR & MAINTENANCE					
Implements	acre	9.21	1.0000	9.21	_____
Tractors	acre	4.64	1.0000	4.64	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
Roll-Out Pipe Irr.	acre	6.36	1.0000	6.36	_____
INTEREST ON OP. CAP.	acre	14.60	1.0000	14.60	_____
TOTAL DIRECT EXPENSES				566.39	_____
FIXED EXPENSES					
Implements	acre	15.88	1.0000	15.88	_____
Tractors	acre	29.12	1.0000	29.12	_____
Harvesters	acre	13.40	1.0000	13.40	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
Roll-Out Pipe Irr.	acre	51.53	1.0000	51.53	_____
TOTAL FIXED EXPENSES				111.13	_____
TOTAL SPECIFIED EXPENSES				677.52	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**



Table 3.B Summary of estimated costs and returns per acre  
 Corn, conventional tillage, RR seed, 12-row 38",  
 210 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.62	210.0000	760.20	_____
				-----	
TOTAL INCOME				760.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	11.50	1.0000	11.50	_____
FERTILIZERS	acre	179.14	1.0000	179.14	_____
HERBICIDES	acre	60.22	1.0000	60.22	_____
INSECTICIDES	acre	8.20	1.0000	8.20	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	107.78	1.0000	107.78	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	48.30	1.0000	48.30	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1263	1.14	_____
IRRIGATE LABOR	hour	9.06	0.3875	3.53	_____
OPERATOR LABOR	hour	13.14	0.8116	10.65	_____
UNALLOCATED LABOR	hour	13.15	0.6597	8.68	_____
DIESEL FUEL	gal	1.70	19.9688	33.95	_____
REPAIR & MAINTENANCE	acre	23.79	1.0000	23.79	_____
INTEREST ON OP. CAP.	acre	14.60	1.0000	14.60	_____
				-----	
TOTAL DIRECT EXPENSES				566.39	_____
RETURNS ABOVE DIRECT EXPENSES				193.81	_____
TOTAL FIXED EXPENSES				111.13	_____
				-----	
TOTAL SPECIFIED EXPENSES				677.52	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				82.68	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 3.C Estimated resource use for field operations, per acre  
 Corn, conventional tillage, RR seed, 12-row 38",  
 210 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER 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	0.3300				
Lime (Spread)	ton			0.33	Oct	0.6600				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.8000				
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				
Row Cond./Roll-Fold.	30'	MFWD 225	0.062	1.00	Mar		0.06	0.06	0.06	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					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				
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				
Cultivate	12R-38	MFWD 225	0.054	1.00	May		0.05	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	0.10	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					210.0000				
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							0.81	0.79	1.32	0.65

Note: Cost of production estimates are based on 2016 input prices.

- Fertilization decisions should be based on soil tests.**
- Soil test cost is prorated for a test every 3<sup>rd</sup> year.**
- Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 3.D Estimated costs for field operations, per acre  
 Corn, conventional tillage, RR seed, 12-row 38",  
 210 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Subsoiler	3 shank		2.01	0.82	2.55			0.26	5.64	4.68	10.32
Disk Harrow	24'		1.61	1.53	2.05			0.25	5.44	5.55	10.99
Soil Test	acre	3.30						0.16	3.46		3.46
Lime (Spread)	ton	30.36						1.44	31.80		31.80
Spin Spreader	5 ton		0.83	0.57	1.43			0.13	2.96	2.37	5.33
Phosphorus(46% P2O5)	cwt	39.38						1.87	41.25		41.25
Potash (60% K2O)	cwt	25.46						1.21	26.67		26.67
Bed/Disk w/roller	12R-30/40		1.23	1.12	1.56			0.19	4.10	4.51	8.61
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	5.59						0.18	5.77		5.77
Select Max	pt	14.99						0.47	15.46		15.46
Row Cond./Roll-Fold.	30'		1.23	0.99	1.56			0.10	3.88	4.15	8.03
Plant - Folding	12R-38		0.98	1.68	1.69			0.12	4.47	4.69	9.16
Corn Seed RR2	thous	107.78						2.99	110.77		110.77
Custom Apply Fert	acre	7.00						0.17	7.17		7.17
UAN + Sulfur (28%)	gal	51.80						1.23	53.03		53.03
Sprayer 600-750gal	60' 175hp		0.27	0.18	0.52			0.02	0.99	1.20	2.19
Atrazine 4L	pt	7.80						0.19	7.99		7.99
Halex GT	pt	27.36						0.65	28.01		28.01
Corn Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-38		1.02	0.96	1.52			0.07	3.57	2.91	6.48
UAN (32%)	gal	62.50						1.24	63.74		63.74
Cultivate	12R-38		1.07	0.91	1.35			0.07	3.40	3.74	7.14
App by Air ( 3 gal)	appl	5.00						0.08	5.08		5.08
Intrepid 2F	oz	8.20						0.13	8.33		8.33
Header - Corn	8R-38		2.34	4.90	2.52			0.04	9.80	15.66	25.46
Grain Cart Corn	700 bu		0.50	0.42	0.63			0.01	1.56	1.53	3.09
Haul Corn	bu	48.30						0.19	48.49		48.49
Stalk Shredder Flex	20'		1.62	2.71	2.06			0.03	6.42	4.84	11.26
Roll-Out Pipe Irr.	acre	8.25	19.24	7.00	4.56			0.64	39.69	55.30	94.99
TOTALS		470.05	33.95	23.79	24.00	0.00	14.60	566.39	111.13	677.52	

Note: Cost of production estimates are based on 2016 input prices.  
**Fertilization decisions should be based on soil tests.**  
**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**  
**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 3.E Estimated monthly income and expense flows per acre  
 Corn, conventional tillage, RR seed, 12-row 38",  
 210 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2017

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	760.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	5.00	0.00	0.00	0.00
FERTILIZERS	64.84	0.00	0.00	0.00	0.00	0.00	51.80	62.50	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	25.06	0.00	35.16	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	8.20	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	107.78	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	7.00	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	48.30
CUSTOM LIME	30.36	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	3.30	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	3.25	0.52	3.10	3.01	0.23	0.59	5.21
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	6.31	0.00	0.00	0.00	0.00	2.21	0.27	2.09	13.83	4.50	0.28	4.46
REPAIR & MAINTENANCE	4.37	0.00	0.00	0.00	0.00	2.67	0.18	1.87	5.55	0.98	0.14	8.03
INTEREST ON OP. CAP.	5.58	0.00	0.00	0.00	1.00	3.21	2.26	1.50	0.70	0.07	0.01	0.27
TOTAL DIRECT EXPENSES	122.85	0.00	0.00	0.00	32.56	119.12	97.19	77.06	44.54	5.78	1.02	66.27
NET INCOME	-122.85	0.00	0.00	0.00	-32.56	-119.12	-97.19	-77.06	-44.54	-5.78	-1.02	693.93
NET INCOME TO DATE	-122.85	-122.85	-122.85	-122.85	-155.41	-274.53	-371.72	-448.78	-493.32	-499.10	-500.12	193.81

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 3.F Estimated returns for various price/yield combinations, per acre  
 Corn, conventional tillage, RR seed, 12-row 38",  
 210 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2017

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
	PRODUCT PRICE												
Corn	2.71	2.89	3.07	3.25	3.43	3.62	3.80	3.98	4.16	4.34	4.52		
PERCENT	YIELD	UNIT	dollars										
50	105.00	bu	-257 -368	-238 -349	-219 -330	-200 -311	-181 -292	-162 -273	-143 -254	-124 -235	-105 -216	-86 -197	-67 -178
60	126.00	bu	-204 -316	-182 -293	-159 -270	-136 -247	-113 -224	-90 -202	-68 -179	-45 -156	-22 -133	0 -110	23 -87
70	147.00	bu	-152 -263	-126 -237	-99 -210	-72 -184	-46 -157	-19 -130	6 -104	33 -77	60 -51	86 -24	113 2
80	168.00	bu	-100 -211	-70 -181	-39 -150	-9 -120	21 -90	51 -59	81 -29	112 1	142 31	173 61	203 92
90	189.00	bu	-48 -159	-14 -125	20 -91	54 -56	88 -22	122 11	156 45	191 79	225 114	259 148	293 182
100	210.00	bu	3 -107	41 -69	79 -31	117 6	155 44	193 82	231 120	269 158	307 196	345 234	383 272
110	231.00	bu	55 -55	97 -13	139 28	181 70	223 112	264 153	306 195	348 237	390 279	432 321	474 362
120	252.00	bu	108 -3	153 42	199 88	244 133	290 179	336 225	381 270	427 316	472 361	518 407	564 453
130	273.00	bu	160 49	209 98	259 147	308 197	357 246	407 296	456 345	506 395	555 444	604 493	654 543
140	294.00	bu	212 101	265 154	318 207	372 260	425 314	478 367	531 420	584 473	638 527	691 580	744 633
150	315.00	bu	264 153	321 210	378 267	435 324	492 381	549 438	606 495	663 552	720 609	777 666	834 723

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.  
 Note: Cost of production estimates are based on 2016 input prices.

Table 4.A Estimated costs per acre  
 Corn, conventional tillage, RR seed, 12-row 38"  
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2017

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	1.0000	5.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	21.88	1.0870	23.78	_____
Potash (60% K2O)	cwt	16.97	0.8300	14.09	_____
UAN + Sulfur (28%)	gal	1.61	19.3063	31.08	_____
UAN (32%)	gal	1.58	29.6700	46.88	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.18	0.5000	5.59	_____
Select Max	pt	14.99	1.0000	14.99	_____
Atrazine 4L	pt	1.95	4.0000	7.80	_____
Halex GT	pt	7.60	3.6000	27.36	_____
INSECTICIDES					
Intrepid 2F	oz	2.05	4.0000	8.20	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.17	28.0000	88.76	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	_____
HAULING					
Haul Corn	bu	0.23	150.0000	34.50	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.5690	7.46	_____
Harvesters	hour	13.14	0.1009	1.33	_____
Self-Propelled	hour	13.14	0.0176	0.23	_____
HAND LABOR					
Implements	hour	9.06	0.1175	1.06	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.16	0.6188	8.15	_____
DIESEL FUEL					
Tractors	gal	1.70	6.5903	11.21	_____
Harvesters	gal	1.70	1.3770	2.34	_____
Self-Propelled	gal	1.70	0.1586	0.27	_____
REPAIR & MAINTENANCE					
Implements	acre	7.70	1.0000	7.70	_____
Tractors	acre	3.88	1.0000	3.88	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
INTEREST ON OP. CAP.	acre	11.22	1.0000	11.22	_____
TOTAL DIRECT EXPENSES				424.18	_____
FIXED EXPENSES					
Implements	acre	11.76	1.0000	11.76	_____
Tractors	acre	24.42	1.0000	24.42	_____
Harvesters	acre	13.40	1.0000	13.40	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
TOTAL FIXED EXPENSES				50.78	_____
TOTAL SPECIFIED EXPENSES				474.96	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 4.B Summary of estimated costs and returns per acre  
 Corn, conventional tillage, RR seed, 12-row 38"  
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.62	150.0000	543.00	_____
				-----	
TOTAL INCOME				543.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	11.50	1.0000	11.50	_____
FERTILIZERS	acre	115.83	1.0000	115.83	_____
HERBICIDES	acre	60.22	1.0000	60.22	_____
INSECTICIDES	acre	8.20	1.0000	8.20	_____
SEED/PLANTS	acre	88.76	1.0000	88.76	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	34.50	1.0000	34.50	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1263	1.14	_____
OPERATOR LABOR	hour	13.14	0.6876	9.02	_____
UNALLOCATED LABOR	hour	13.16	0.6188	8.15	_____
DIESEL FUEL	gal	1.70	8.1261	13.82	_____
REPAIR & MAINTENANCE	acre	15.16	1.0000	15.16	_____
INTEREST ON OP. CAP.	acre	11.22	1.0000	11.22	_____
				-----	
TOTAL DIRECT EXPENSES				424.18	_____
RETURNS ABOVE DIRECT EXPENSES				118.82	_____
TOTAL FIXED EXPENSES				50.78	_____
				-----	
TOTAL SPECIFIED EXPENSES				474.96	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				68.04	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 4.C Estimated resource use for field operations, per acre  
 Corn, conventional tillage, RR seed, 12-row 38"  
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2017

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	0.3300				
Lime (Spread)	ton			0.33	Oct	0.6600				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.0870				
Potash (60% K2O)	cwt					0.8300				
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				
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					150.0000				
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 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**



Table 4.D Estimated costs for field operations, per acre  
 Corn, conventional tillage, RR seed, 12-row 38"  
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Subsoiler	3 shank		2.01	0.82	2.55			0.26	5.64	4.68	10.32
Disk Harrow	24'		1.61	1.53	2.05			0.25	5.44	5.55	10.99
Soil Test	acre	3.30						0.16	3.46		3.46
Lime (Spread)	ton	30.36						1.44	31.80		31.80
Spin Spreader	5 ton		0.83	0.57	1.43			0.13	2.96	2.37	5.33
Phosphorus(46% P2O5)	cwt	23.78						1.13	24.91		24.91
Potash (60% K2O)	cwt	14.09						0.67	14.76		14.76
Bed/Disk (Hipper)Rd	8R-38		1.46	0.77	1.85			0.19	4.27	3.89	8.16
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	5.59						0.18	5.77		5.77
Select Max	pt	14.99						0.47	15.46		15.46
Row Cond Rigid	26'		1.18	0.62	1.49			0.09	3.38	3.46	6.84
Plant - Folding	12R-38		0.98	1.68	1.69			0.12	4.47	4.69	9.16
Corn Seed RR2	thous	88.76						2.46	91.22		91.22
Custom Apply Fert	acre	7.00						0.17	7.17		7.17
UAN + Sulfur (28%)	gal	31.08						0.74	31.82		31.82
Sprayer 600-750gal	60' 175hp		0.27	0.18	0.52			0.02	0.99	1.20	2.19
Atrazine 4L	pt	7.80						0.19	7.99		7.99
Halex GT	pt	27.36						0.65	28.01		28.01
Corn Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-38		1.02	0.96	1.52			0.07	3.57	2.91	6.48
UAN (32%)	gal	46.88						0.93	47.81		47.81
App by Air ( 3 gal)	appl	5.00						0.08	5.08		5.08
Intrepid 2F	oz	8.20						0.13	8.33		8.33
Header - Corn	8R-38		2.34	4.90	2.52			0.04	9.80	15.66	25.46
Grain Cart Corn	700 bu		0.50	0.42	0.63			0.01	1.56	1.53	3.09
Haul Corn	bu	34.50						0.14	34.64		34.64
Stalk Shredder Flex	20'		1.62	2.71	2.06			0.03	6.42	4.84	11.26
TOTALS		365.67	13.82	15.16	18.31	0.00	11.22	424.18	50.78	474.96	

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 4.E Estimated monthly income and expense flows per acre  
 Corn, conventional tillage, RR seed, 12-row 38"  
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2017

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	543.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	5.00	0.00	0.00	0.00
FERTILIZERS	37.87	0.00	0.00	0.00	0.00	0.00	31.08	46.88	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	25.06	0.00	35.16	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	8.20	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	88.76	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	7.00	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	34.50
CUSTOM LIME	30.36	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	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	7.88	0.00	0.00	0.00	0.00	3.18	0.52	1.52	0.00	0.00	0.00	5.21
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	5.91	0.00	0.00	0.00	0.00	2.16	0.27	1.02	0.00	0.00	0.00	4.46
REPAIR & MAINTENANCE	3.69	0.00	0.00	0.00	0.00	2.30	0.18	0.96	0.00	0.00	0.00	8.03
INTEREST ON OP. CAP.	4.23	0.00	0.00	0.00	1.00	2.67	1.77	1.12	0.21	0.00	0.00	0.22
TOTAL DIRECT EXPENSES	93.24	0.00	0.00	0.00	32.56	99.07	75.98	57.50	13.41	0.00	0.00	52.42
NET INCOME	-93.24	0.00	0.00	0.00	-32.56	-99.07	-75.98	-57.50	-13.41	0.00	0.00	490.58
NET INCOME TO DATE	-93.24	-93.24	-93.24	-93.24	-125.80	-224.87	-300.85	-358.35	-371.76	-371.76	-371.76	118.82

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre  
 Corn, conventional tillage, RR seed, 12-row 38"  
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2017

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Corn			2.71	2.89	3.07	3.25	3.43	3.62	3.80	3.98	4.16	4.34	4.52
			-----dollars-----										
PERCENT	YIELD	UNIT											
50	75.00	bu	-203	-189	-176	-162	-148	-135	-121	-108	-94	-81	-67
			-254	-240	-226	-213	-199	-186	-172	-158	-145	-131	-118
60	90.00	bu	-165	-149	-133	-117	-100	-84	-68	-51	-35	-19	-3
			-216	-200	-184	-167	-151	-135	-119	-102	-86	-70	-53
70	105.00	bu	-128	-109	-90	-71	-52	-33	-14	4	23	42	61
			-179	-160	-141	-122	-103	-84	-65	-46	-27	-8	10
80	120.00	bu	-91	-69	-48	-26	-4	17	38	60	82	104	125
			-142	-120	-98	-77	-55	-33	-11	9	31	53	74
90	135.00	bu	-54	-29	-5	19	43	67	92	116	141	165	190
			-104	-80	-56	-31	-7	17	41	66	90	114	139
100	150.00	bu	-16	10	37	64	91	118	145	173	200	227	254
			-67	-40	-13	13	40	68	95	122	149	176	203
110	165.00	bu	20	50	80	109	139	169	199	229	259	289	318
			-30	-0	29	59	89	118	148	178	208	238	268
120	180.00	bu	57	90	122	155	187	220	253	285	318	350	383
			6	39	71	104	137	169	202	234	267	300	332
130	195.00	bu	94	130	165	200	236	271	306	341	377	412	447
			44	79	114	149	185	220	255	291	326	361	397
140	210.00	bu	132	170	208	246	284	322	360	398	436	474	512
			81	119	157	195	233	271	309	347	385	423	461
150	225.00	bu	169	210	250	291	332	373	413	454	495	535	576
			118	159	200	240	281	322	362	403	444	485	525

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 2016 input prices.

Table 5.A Estimated costs per acre  
 Corn, stale seedbed, RR seed, 12-row 30",  
 135 bu yield goal, All Areas, Mississippi, 2017

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	1.0000	5.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	21.88	1.0870	23.78	_____
Potash (60% K2O)	cwt	16.97	0.8300	14.09	_____
UAN + Sulfur (28%)	gal	1.61	48.5856	78.22	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.18	0.5000	5.59	_____
Select Max	pt	14.99	1.0000	14.99	_____
Atrazine 4L	pt	1.95	4.0000	7.80	_____
Halex GT	pt	7.60	3.6000	27.36	_____
INSECTICIDES					
Intrepid 2F	oz	2.05	4.0000	8.20	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.17	28.0000	88.76	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	_____
HAULING					
Haul Corn	bu	0.23	135.0000	31.05	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.4823	6.33	_____
Harvesters	hour	13.14	0.1277	1.68	_____
Self-Propelled	hour	13.14	0.0176	0.23	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.15	0.5649	7.43	_____
DIESEL FUEL					
Tractors	gal	1.70	4.2208	7.19	_____
Harvesters	gal	1.70	1.7419	2.96	_____
Self-Propelled	gal	1.70	0.1586	0.27	_____
REPAIR & MAINTENANCE					
Implements	acre	8.56	1.0000	8.56	_____
Tractors	acre	2.56	1.0000	2.56	_____
Harvesters	acre	4.30	1.0000	4.30	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
INTEREST ON OP. CAP.	acre	10.91	1.0000	10.91	_____
TOTAL DIRECT EXPENSES				416.47	_____
FIXED EXPENSES					
Implements	acre	12.69	1.0000	12.69	_____
Tractors	acre	16.14	1.0000	16.14	_____
Harvesters	acre	16.95	1.0000	16.95	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
TOTAL FIXED EXPENSES				46.98	_____
TOTAL SPECIFIED EXPENSES				463.45	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 5.B Summary of estimated costs and returns per acre  
 Corn, stale seedbed, RR seed, 12-row 30",  
 135 bu yield goal, All Areas, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.62	135.0000	488.70	_____
				-----	
TOTAL INCOME				488.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	11.50	1.0000	11.50	_____
FERTILIZERS	acre	116.09	1.0000	116.09	_____
HERBICIDES	acre	60.22	1.0000	60.22	_____
INSECTICIDES	acre	8.20	1.0000	8.20	_____
SEED/PLANTS	acre	88.76	1.0000	88.76	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	31.05	1.0000	31.05	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1530	1.39	_____
OPERATOR LABOR	hour	13.14	0.6277	8.24	_____
UNALLOCATED LABOR	hour	13.15	0.5649	7.43	_____
DIESEL FUEL	gal	1.70	6.1215	10.42	_____
REPAIR & MAINTENANCE	acre	15.60	1.0000	15.60	_____
INTEREST ON OP. CAP.	acre	10.91	1.0000	10.91	_____
				-----	
TOTAL DIRECT EXPENSES				416.47	_____
RETURNS ABOVE DIRECT EXPENSES				72.23	_____
TOTAL FIXED EXPENSES				46.98	_____
				-----	
TOTAL SPECIFIED EXPENSES				463.45	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				25.25	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 5.C Estimated resource use for field operations, per acre  
 Corn, stale seedbed, RR seed, 12-row 30",  
 135 bu yield goal, All Areas, Mississippi, 2017

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	0.3300				
Lime (Spread)	ton			0.33	Oct	0.6600				
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)	cwt					1.0870				
Potash (60% K2O)	cwt					0.8300				
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			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					135.0000				
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 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 5.D Estimated costs for field operations, per acre  
 Corn, stale seedbed, RR seed, 12-row 30",  
 135 bu yield goal, All Areas, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.30						0.16	3.46		3.46
Lime (Spread)	ton	30.36						1.44	31.80		31.80
Spin Spreader	5 ton		0.63	0.50	1.43			0.12	2.68	1.97	4.65
Phosphorus(46% P2O5)	cwt	23.78						1.13	24.91		24.91
Potash (60% K2O)	cwt	14.09						0.67	14.76		14.76
Disk Heavy	20'		1.45	1.62	2.43			0.26	5.76	5.57	11.33
Bed/Disk w/roller	8R-30/40		1.39	1.15	2.34			0.23	5.11	4.86	9.97
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	5.59						0.18	5.77		5.77
Select Max	pt	14.99						0.47	15.46		15.46
Plant - Rigid	12R-30		0.94	1.68	2.14			0.13	4.89	4.68	9.57
Corn Seed RR2	thous	88.76						2.46	91.22		91.22
Custom Apply Fert	acre	7.00						0.17	7.17		7.17
UAN + Sulfur (28%)	gal	23.83						0.57	24.40		24.40
Sprayer 600-750gal	60' 175hp		0.27	0.18	0.52			0.02	0.99	1.20	2.19
Atrazine 4L	pt	7.80						0.19	7.99		7.99
Halex GT	pt	27.36						0.65	28.01		28.01
Fert Appl (Liquid)	12R-30		1.17	1.42	2.32			0.10	5.01	3.75	8.76
UAN + Sulfur (28%)	gal	54.39						1.08	55.47		55.47
Corn Consultant	acre	6.00						0.12	6.12		6.12
App by Air ( 3 gal)	appl	5.00						0.08	5.08		5.08
Intrepid 2F	oz	8.20						0.13	8.33		8.33
Header - Corn	8R-30		2.96	6.17	3.19			0.05	12.37	19.76	32.13
Grain Cart Corn	500 bu		0.38	0.29	0.63			0.01	1.31	1.13	2.44
Haul Corn	bu	31.05						0.12	31.17		31.17
Stalk Shredder Flex	20'		1.23	2.59	2.06			0.02	5.90	4.06	9.96
TOTALS		362.48	10.42	15.60	17.06	0.00	10.91	416.47	46.98	463.45	

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 5.E Estimated monthly income and expense flows per acre  
 Corn, stale seedbed, RR seed, 12-row 30",  
 135 bu yield goal, All Areas, Mississippi, 2017

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	488.70
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	5.00	0.00	0.00	0.00
FERTILIZERS	37.87	0.00	0.00	0.00	0.00	0.00	23.83	54.39	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	25.06	0.00	35.16	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	8.20	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	88.76	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	7.00	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	31.05
CUSTOM LIME	30.36	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	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.20	0.00	0.00	0.00	0.00	2.14	0.52	2.32	0.00	0.00	0.00	5.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	3.47	0.00	0.00	0.00	0.00	0.94	0.27	1.17	0.00	0.00	0.00	4.57
REPAIR & MAINTENANCE	3.27	0.00	0.00	0.00	0.00	1.68	0.18	1.42	0.00	0.00	0.00	9.05
INTEREST ON OP. CAP.	4.01	0.00	0.00	0.00	1.00	2.59	1.60	1.30	0.21	0.00	0.00	0.20
TOTAL DIRECT EXPENSES	88.48	0.00	0.00	0.00	32.56	96.11	68.56	66.60	13.41	0.00	0.00	50.75
NET INCOME	-88.48	0.00	0.00	0.00	-32.56	-96.11	-68.56	-66.60	-13.41	0.00	0.00	437.95
NET INCOME TO DATE	-88.48	-88.48	-88.48	-88.48	-121.04	-217.15	-285.71	-352.31	-365.72	-365.72	-365.72	72.23

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.



Table 5.F Estimated returns for various price/yield combinations, per acre  
 Corn, stale seedbed, RR seed, 12-row 30",  
 135 bu yield goal, All Areas, Mississippi, 2017

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Corn			2.71	2.89	3.07	3.25	3.43	3.62	3.80	3.98	4.16	4.34	4.52
PERCENT	YIELD	UNIT	-----dollars-----										
50	67.50	bu	-217 -264	-205 -252	-193 -240	-180 -227	-168 -215	-156 -203	-144 -191	-132 -179	-119 -166	-107 -154	-95 -142
60	81.00	bu	-184 -231	-169 -216	-154 -201	-140 -187	-125 -172	-110 -157	-96 -143	-81 -128	-66 -113	-52 -99	-37 -84
70	94.50	bu	-150 -197	-133 -180	-116 -163	-99 -146	-82 -129	-65 -112	-47 -94	-30 -77	-13 -60	3 -43	20 -26
80	108.00	bu	-117 -163	-97 -144	-77 -124	-58 -105	-38 -85	-19 -66	0 -46	19 -27	39 -7	58 11	78 31
90	121.50	bu	-83 -130	-61 -108	-39 -86	-17 -64	4 -42	26 -20	48 1	70 23	92 45	114 67	136 89
100	135.00	bu	-49 -96	-25 -72	-1 -48	23 -23	47 0	72 25	96 49	121 74	145 98	169 122	194 147
110	148.50	bu	-16 -63	10 -36	37 -9	64 17	91 44	117 71	144 97	171 124	198 151	225 178	252 205
120	162.00	bu	17 -29	46 -0	75 28	105 58	134 87	163 116	193 146	222 175	251 204	281 234	310 263
130	175.50	bu	50 3	82 35	114 67	145 98	177 130	209 162	241 194	273 226	304 257	336 289	368 321
140	189.00	bu	84 37	118 71	152 105	186 139	221 174	255 208	289 242	323 276	357 310	392 345	426 379
150	202.50	bu	117 70	154 107	191 144	227 180	264 217	300 254	337 290	374 327	410 363	447 400	484 437

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 2016 input prices.

Table 6.A Estimated costs per acre  
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal  
 Non-Delta Areas, Mississippi, 2017

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	21.88	1.0870	23.78	_____
Potash (60% K2O)	cwt	16.97	0.8300	14.09	_____
Fert 10-34-0	gal	3.33	4.2919	14.29	_____
UAN (32%)	gal	1.58	45.2080	71.43	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.18	0.5000	5.59	_____
Select Max	pt	14.99	1.0000	14.99	_____
Atrazine 4L	pt	1.95	4.0000	7.80	_____
Halex GT	pt	7.60	3.6000	27.36	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.89	28.0000	108.92	_____
HAULING					
Haul Corn	bu	0.23	135.0000	31.05	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.4165	5.46	_____
Harvesters	hour	13.14	0.1277	1.68	_____
HAND LABOR					
Implements	hour	9.06	0.2283	2.06	_____
UNALLOCATED LABOR					
	hour	13.14	0.4898	6.44	_____
DIESEL FUEL					
Tractors	gal	1.70	3.6449	6.20	_____
Harvesters	gal	1.70	1.7419	2.96	_____
REPAIR & MAINTENANCE					
Implements	acre	7.38	1.0000	7.38	_____
Tractors	acre	2.20	1.0000	2.20	_____
Harvesters	acre	4.30	1.0000	4.30	_____
INTEREST ON OP. CAP.	acre	10.43	1.0000	10.43	_____
TOTAL DIRECT EXPENSES				419.05	_____
FIXED EXPENSES					
Implements	acre	9.67	1.0000	9.67	_____
Tractors	acre	13.95	1.0000	13.95	_____
Harvesters	acre	16.95	1.0000	16.95	_____
TOTAL FIXED EXPENSES				40.57	_____
TOTAL SPECIFIED EXPENSES				459.62	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 6.B Summary of estimated costs and returns per acre  
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal  
 Non-Delta Areas, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.62	135.0000	488.70	_____
				-----	
TOTAL INCOME				488.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	123.59	1.0000	123.59	_____
HERBICIDES	acre	60.22	1.0000	60.22	_____
SEED/PLANTS	acre	108.92	1.0000	108.92	_____
HAULING	acre	31.05	1.0000	31.05	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.2283	2.06	_____
OPERATOR LABOR	hour	13.14	0.5442	7.14	_____
UNALLOCATED LABOR	hour	13.14	0.4898	6.44	_____
DIESEL FUEL	gal	1.70	5.3869	9.16	_____
REPAIR & MAINTENANCE	acre	13.88	1.0000	13.88	_____
INTEREST ON OP. CAP.	acre	10.43	1.0000	10.43	_____
				-----	
TOTAL DIRECT EXPENSES				419.05	_____
RETURNS ABOVE DIRECT EXPENSES				69.65	_____
TOTAL FIXED EXPENSES				40.57	_____
				-----	
TOTAL SPECIFIED EXPENSES				459.62	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				29.08	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 6.C Estimated resource use for field operations, per acre  
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal  
 Non-Delta Areas, Mississippi, 2017

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	0.3300				
Lime (Spread)	ton			0.33	Oct	0.6600				
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					1.0870				
Potash (60% K2O)	cwt					0.8300				
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					135.0000				
Stalk Shredder Flex	20'	MFWD 170	0.082	1.00	Sep		0.08	0.08	0.08	0.07
<b>TOTALS</b>							<b>0.54</b>	<b>0.54</b>	<b>0.77</b>	<b>0.48</b>

Note: Cost of production estimates are based on 2016 input prices.  
**Fertilization decisions should be based on soil tests.**  
**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**  
**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 6.D Estimated costs for field operations, per acre  
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal  
 Non-Delta Areas, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.30						0.16	3.46	3.46
Lime (Spread)	ton	30.36						1.44	31.80	31.80
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	5.59						0.18	5.77	5.77
Select Max	pt	14.99						0.47	15.46	15.46
Spin Spreader	5 ton		0.63	0.50	1.43			0.07	2.63	1.97
Phosphorus(46% P2O5)	cwt	23.78						0.66	24.44	24.44
Potash (60% K2O)	cwt	14.09						0.39	14.48	14.48
NT Plant&Pre-Rigid	8R-30		1.57	2.37	3.60			0.21	7.75	7.00
Corn Seed BtRR	thous	108.92						3.02	111.94	111.94
Fert 10-34-0	gal	14.29						0.40	14.69	14.69
Spray (Broadcast)	27'		0.93	0.49	1.84			0.08	3.34	2.29
Atrazine 4L	pt	7.80						0.19	7.99	7.99
Halex GT	pt	27.36						0.65	28.01	28.01
Fert Appl (Liquid)	8R-30		1.46	1.47	2.89			0.14	5.96	4.36
UAN (32%)	gal	71.43						1.70	73.13	73.13
Corn Consultant	acre	6.00						0.12	6.12	6.12
Header - Corn	8R-30		2.96	6.17	3.19			0.05	12.37	19.76
Grain Cart Corn	500 bu		0.38	0.29	0.63			0.01	1.31	1.13
Haul Corn	bu	31.05						0.12	31.17	31.17
Stalk Shredder Flex	20'		1.23	2.59	2.06			0.02	5.90	4.06
TOTALS		369.94	9.16	13.88	15.64	0.00	10.43	419.05	40.57	459.62

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 6.E Estimated monthly income and expense flows per acre  
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal  
 Non-Delta Areas, Mississippi, 2017

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	488.70
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	52.16	71.43	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	25.06	0.00	35.16	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	108.92	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	31.05
CUSTOM LIME	30.36	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	3.30	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	5.03	4.73	0.00	0.00	0.00	0.00	5.88
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	2.20	2.39	0.00	0.00	0.00	0.00	4.57
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	2.87	1.96	0.00	0.00	0.00	0.00	9.05
INTEREST ON OP. CAP.	1.60	0.00	0.00	0.00	1.00	4.75	2.76	0.12	0.00	0.00	0.00	0.20
TOTAL DIRECT EXPENSES	35.26	0.00	0.00	0.00	32.56	175.93	118.43	6.12	0.00	0.00	0.00	50.75
NET INCOME	-35.26	0.00	0.00	0.00	-32.56	-175.93	-118.43	-6.12	0.00	0.00	0.00	437.95
NET INCOME TO DATE	-35.26	-35.26	-35.26	-35.26	-67.82	-243.75	-362.18	-368.30	-368.30	-368.30	-368.30	69.65

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 6.F Estimated returns for various price/yield combinations, per acre  
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal  
 Non-Delta Areas, Mississippi, 2017

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Corn	2.71	2.89	3.07	3.25	3.43	3.62	3.80	3.98	4.16	4.34	4.52		
PERCENT	YIELD	UNIT	dollars										
50	67.50	bu	-220 -260	-207 -248	-195 -236	-183 -224	-171 -211	-159 -199	-146 -187	-134 -175	-122 -163	-110 -150	-98 -138
60	81.00	bu	-186 -227	-172 -212	-157 -197	-142 -183	-128 -168	-113 -153	-98 -139	-84 -124	-69 -109	-54 -95	-40 -80
70	94.50	bu	-153 -193	-136 -176	-118 -159	-101 -142	-84 -125	-67 -108	-50 -91	-33 -73	-16 -56	0 -39	17 -22
80	108.00	bu	-119 -160	-100 -140	-80 -121	-60 -101	-41 -81	-21 -62	-2 -42	17 -23	36 -3	56 15	75 35
90	121.50	bu	-86 -126	-64 -104	-42 -82	-20 -60	1 -38	23 -16	45 5	67 27	89 49	111 71	133 93
100	135.00	bu	-52 -93	-28 -68	-3 -44	20 -19	45 4	69 29	94 53	118 77	142 102	167 126	191 151
110	148.50	bu	-18 -59	7 -32	34 -5	61 21	88 47	115 74	142 101	169 128	196 155	222 182	249 209
120	162.00	bu	14 -26	43 3	73 32	102 61	131 91	161 120	190 149	219 179	249 208	278 237	307 267
130	175.50	bu	48 7	79 39	111 71	143 102	175 134	206 166	238 198	270 229	302 261	333 293	365 325
140	189.00	bu	81 41	115 75	150 109	184 143	218 177	252 212	286 246	321 280	355 314	389 348	423 383
150	202.50	bu	115 74	151 111	188 147	225 184	261 221	298 257	335 294	371 331	408 367	445 404	481 441

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 2016 input prices.

Table 7.A Estimated costs per acre  
 Grain sorghum, 12-row 30", 100 bu yield goal  
 All Areas, Mississippi, 2017

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	21.88	1.3000	28.44	_____
Potash (60% K2O)	cwt	16.97	1.0000	16.97	_____
UAN + Sulfur (28%)	gal	1.61	38.2883	61.64	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.79	2.0000	5.58	_____
Select Max	pt	14.99	1.0000	14.99	_____
Lexar	pt	7.90	6.0000	47.40	_____
INSECTICIDES					
Sivanto	oz	2.53	4.0000	10.12	_____
Karate Z	oz	2.58	1.5000	3.87	_____
Prevathon	oz	1.31	14.0000	18.34	_____
Transform WG	oz	7.90	1.0000	7.90	_____
SEED/PLANTS					
Sorghum Concept+ Po	lb	3.39	5.0000	16.95	_____
ADJUVANTS					
Surfactant	pt	3.69	0.3000	1.11	_____
HAULING					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Sorghum Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.3120	4.10	_____
Harvesters	hour	13.14	0.1021	1.34	_____
Self-Propelled	hour	13.14	0.0661	0.85	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0330	0.30	_____
UNALLOCATED LABOR					
	hour	13.18	0.4322	5.70	_____
DIESEL FUEL					
Tractors	gal	1.70	2.7303	4.65	_____
Harvesters	gal	1.70	1.3935	2.37	_____
Self-Propelled	gal	1.70	0.8505	1.45	_____
REPAIR & MAINTENANCE					
Implements	acre	4.82	1.0000	4.82	_____
Tractors	acre	1.65	1.0000	1.65	_____
Harvesters	acre	3.44	1.0000	3.44	_____
Self-Propelled	acre	0.90	1.0000	0.90	_____
INTEREST ON OP. CAP.	acre	7.85	1.0000	7.85	_____
TOTAL DIRECT EXPENSES				349.68	_____
FIXED EXPENSES					
Implements	acre	9.45	1.0000	9.45	_____
Tractors	acre	10.44	1.0000	10.44	_____
Harvesters	acre	13.56	1.0000	13.56	_____
Self-Propelled	acre	5.80	1.0000	5.80	_____
TOTAL FIXED EXPENSES				39.25	_____
TOTAL SPECIFIED EXPENSES				388.93	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**



Table 7.B Summary of estimated costs and returns per acre  
 Grain sorghum, 12-row 30", 100 bu yield goal  
 All Areas, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Grain Sorghum	bu	3.44	100.0000	344.00	_____
				-----	
TOTAL INCOME				344.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	107.05	1.0000	107.05	_____
HERBICIDES	acre	72.45	1.0000	72.45	_____
INSECTICIDES	acre	40.23	1.0000	40.23	_____
SEED/PLANTS	acre	16.95	1.0000	16.95	_____
ADJUVANTS	acre	1.11	1.0000	1.11	_____
HAULING	acre	25.00	1.0000	25.00	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1772	1.61	_____
OPERATOR LABOR	hour	13.14	0.4803	6.29	_____
UNALLOCATED LABOR	hour	13.18	0.4322	5.70	_____
DIESEL FUEL	gal	1.70	4.9745	8.47	_____
REPAIR & MAINTENANCE	acre	10.81	1.0000	10.81	_____
INTEREST ON OP. CAP.	acre	7.85	1.0000	7.85	_____
				-----	
TOTAL DIRECT EXPENSES				349.68	_____
RETURNS ABOVE DIRECT EXPENSES				-5.68	_____
TOTAL FIXED EXPENSES				39.25	_____
				-----	
TOTAL SPECIFIED EXPENSES				388.93	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-44.93	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 7.C Estimated resource use for field operations, per acre  
 Grain sorghum, 12-row 30", 100 bu yield goal  
 All Areas, Mississippi, 2017

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	0.3300				
Lime (Spread)	ton			0.33	Oct	0.6600				
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					5.0000				
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	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
Transform WG	oz					1.0000				
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 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 7.D Estimated costs for field operations, per acre  
 Grain sorghum, 12-row 30", 100 bu yield goal  
 All Areas, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.30						0.16	3.46		3.46
Lime (Spread)	ton	30.36						1.44	31.80		31.80
Disk Harrow	24'		1.22	1.40	2.05			0.20	4.87	4.78	9.65
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	5.58						0.18	5.76		5.76
Select Max	pt	14.99						0.47	15.46		15.46
Surfactant	pt	1.11						0.04	1.15		1.15
Spin Spreader	5 ton		0.63	0.50	1.43			0.06	2.62	1.97	4.59
Phosphorus(46% P2O5)	cwt	28.44						0.68	29.12		29.12
Potash (60% K2O)	cwt	16.97						0.40	17.37		17.37
Field Cultivate Fld	32'		0.69	0.71	1.16			0.06	2.62	3.51	6.13
Plant - Folding	12R-30		0.94	1.82	2.14			0.12	5.02	4.95	9.97
Sorghum Concept+ Po	lb	16.95						0.40	17.35		17.35
Sprayer 800gal	80' 250hp		0.29	0.18	0.39			0.02	0.88	1.16	2.04
Lexar	pt	47.40						1.13	48.53		48.53
Sorghum Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-30		1.17	1.42	2.32			0.10	5.01	3.75	8.76
UAN + Sulfur (28%)	gal	61.64						1.22	62.86		62.86
Sprayer 800gal	80' 250hp		0.29	0.18	0.39			0.01	0.87	1.16	2.03
Sivanto	oz	10.12						0.16	10.28		10.28
Sprayer 800gal	80' 250hp		0.29	0.18	0.39			0.01	0.87	1.16	2.03
Karate Z	oz	3.87						0.05	3.92		3.92
Sprayer 800gal	80' 250hp		0.29	0.18	0.39			0.01	0.87	1.16	2.03
Prevathon	oz	18.34						0.22	18.56		18.56
Sprayer 800gal	80' 250hp		0.29	0.18	0.39			0.01	0.87	1.16	2.03
Transform WG	oz	7.90						0.09	7.99		7.99
Header Wheat/Sorghum	25' Rigid		2.37	4.06	2.55			0.04	9.02	14.49	23.51
Haul Sorghum	bu	25.00						0.10	25.10		25.10
TOTALS		308.95	8.47	10.81	13.60	0.00	7.85	349.68	39.25	388.93	

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 7.E Estimated monthly income and expense flows per acre  
 Grain sorghum, 12-row 30", 100 bu yield goal  
 All Areas, Mississippi, 2017

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	344.00
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	45.41	61.64	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	25.05	0.00	47.40	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	10.12	30.11	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	16.95	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.11	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	30.36	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	3.30	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	2.05	0.00	0.00	0.00	0.00	5.12	2.32	0.39	1.17	0.00	2.55
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	1.22	0.00	0.00	0.00	0.00	2.55	1.17	0.29	0.87	0.00	2.37
REPAIR & MAINTENANCE	0.00	1.40	0.00	0.00	0.00	0.00	3.21	1.42	0.18	0.54	0.00	4.06
INTEREST ON OP. CAP.	1.60	0.20	0.00	0.00	1.04	0.00	2.87	1.44	0.17	0.39	0.00	0.14
TOTAL DIRECT EXPENSES	35.26	4.87	0.00	0.00	33.70	0.00	123.51	73.99	11.15	33.08	0.00	34.12
NET INCOME	-35.26	-4.87	0.00	0.00	-33.70	0.00	-123.51	-73.99	-11.15	-33.08	0.00	309.88
NET INCOME TO DATE	-35.26	-40.13	-40.13	-40.13	-73.83	-73.83	-197.34	-271.33	-282.48	-315.56	-315.56	-5.68

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 7.F Estimated returns for various price/yield combinations, per acre  
 Grain sorghum, 12-row 30", 100 bu yield goal  
 All Areas, Mississippi, 2017

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Grain Sorghum			2.58	2.75	2.92	3.09	3.26	3.44	3.61	3.78	3.95	4.12	4.30
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu	-208 -247	-199 -238	-190 -230	-182 -221	-173 -212	-165 -204	-156 -195	-147 -187	-139 -178	-130 -169	-122 -161
60	60.00	bu	-184 -224	-174 -213	-164 -203	-153 -193	-143 -182	-133 -172	-122 -162	-112 -151	-102 -141	-91 -131	-81 -120
70	70.00	bu	-161 -200	-149 -188	-137 -176	-125 -164	-113 -152	-101 -140	-89 -128	-77 -116	-65 -104	-53 -92	-41 -80
80	80.00	bu	-138 -177	-124 -163	-110 -149	-96 -136	-83 -122	-69 -108	-55 -94	-41 -81	-28 -67	-14 -53	-0 -39
90	90.00	bu	-114 -154	-99 -138	-84 -123	-68 -107	-53 -92	-37 -76	-22 -61	-6 -45	8 -30	24 -14	39 0
100	100.00	bu	-91 -130	-74 -113	-57 -96	-40 -79	-22 -62	-5 -44	11 -27	28 -10	45 6	63 23	80 41
110	110.00	bu	-68 -107	-49 -88	-30 -69	-11 -50	7 -31	26 -13	45 5	64 24	82 43	101 62	120 81
120	120.00	bu	-45 -84	-24 -63	-3 -43	16 -22	37 -1	58 18	78 39	99 60	120 80	140 101	161 122
130	130.00	bu	-21 -61	0 -38	22 -16	45 6	67 28	89 50	112 73	134 95	157 117	179 140	201 162
140	140.00	bu	1 -37	25 -13	49 10	73 34	97 58	121 82	145 106	170 130	194 154	218 178	242 203
150	150.00	bu	24 -14	50 11	76 37	102 62	127 88	153 114	179 140	205 166	231 191	256 217	282 243

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 2016 input prices.

Table 8.A Estimated costs per acre  
 Wheat followed by soybeans, 70 bu yield goal  
 All Areas, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	3.0000	19.50	_____
App by Air ( 3 gal)	appl	5.00	1.0000	5.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	21.88	1.0000	21.88	_____
Potash (60% K2O)	cwt	16.97	0.7500	12.73	_____
Fert 41-0-0-4	cwt	16.85	2.8000	47.18	_____
FUNGICIDES					
CruiserMaxx	oz	4.60	4.5000	20.70	_____
Prosaro	oz	2.70	8.0000	21.60	_____
HERBICIDES					
Axiom	oz	2.13	10.0000	21.30	_____
Harmony Extra SG	oz	14.02	0.7500	10.52	_____
Axial XL	oz	1.16	16.4000	19.02	_____
INSECTICIDES					
Karate Z	oz	2.58	1.5000	3.87	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.25	90.0000	22.50	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	2.8000	19.60	_____
HAULING					
Haul Wheat	bu	0.26	70.0000	18.20	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Wheat Consultant	acre	5.50	1.0000	5.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.14	0.2648	3.48	_____
Harvesters	hour	13.14	0.1021	1.34	_____
HAND LABOR					
Implements	hour	9.06	0.1363	1.23	_____
UNALLOCATED LABOR					
	hour	13.11	0.2936	3.85	_____
DIESEL FUEL					
Tractors	gal	1.70	2.3178	3.94	_____
Harvesters	gal	1.70	1.3935	2.37	_____
REPAIR & MAINTENANCE					
Implements	acre	3.70	1.0000	3.70	_____
Tractors	acre	1.40	1.0000	1.40	_____
Harvesters	acre	3.44	1.0000	3.44	_____
INTEREST ON OP. CAP.	acre	8.67	1.0000	8.67	_____
TOTAL DIRECT EXPENSES				336.18	_____
FIXED EXPENSES					
Implements	acre	8.10	1.0000	8.10	_____
Tractors	acre	8.86	1.0000	8.86	_____
Harvesters	acre	13.56	1.0000	13.56	_____
TOTAL FIXED EXPENSES				30.52	_____
TOTAL SPECIFIED EXPENSES				366.70	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 8.B Summary of estimated costs and returns per acre  
 Wheat followed by soybeans, 70 bu yield goal  
 All Areas, Mississippi, 2017

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Wheat	bu	4.24	70.0000	296.80	_____
				-----	
TOTAL INCOME				296.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	24.50	1.0000	24.50	_____
FERTILIZERS	acre	81.79	1.0000	81.79	_____
FUNGICIDES	acre	42.30	1.0000	42.30	_____
HERBICIDES	acre	50.84	1.0000	50.84	_____
INSECTICIDES	acre	3.87	1.0000	3.87	_____
SEED/PLANTS	acre	22.50	1.0000	22.50	_____
CUSTOM FERTILIZE	acre	19.60	1.0000	19.60	_____
HAULING	acre	18.20	1.0000	18.20	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	5.50	1.0000	5.50	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1363	1.23	_____
OPERATOR LABOR	hour	13.14	0.3670	4.82	_____
UNALLOCATED LABOR	hour	13.11	0.2936	3.85	_____
DIESEL FUEL	gal	1.70	3.7114	6.31	_____
REPAIR & MAINTENANCE	acre	8.54	1.0000	8.54	_____
INTEREST ON OP. CAP.	acre	8.67	1.0000	8.67	_____
				-----	
TOTAL DIRECT EXPENSES				336.18	_____
RETURNS ABOVE DIRECT EXPENSES				-39.38	_____
TOTAL FIXED EXPENSES				30.52	_____
				-----	
TOTAL SPECIFIED EXPENSES				366.70	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-69.90	_____

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 8.C Estimated resource use for field operations, per acre  
 Wheat followed by soybeans, 70 bu yield goal  
 All Areas, Mississippi, 2017

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	0.3300				
Lime (Spread)	ton			0.33	Sep	0.6600				
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				
Harmony Extra SG	oz					0.7500				
App by Air ( 5 gal)	appl			1.00	Jan	1.0000				
Axial XL	oz					16.4000				
App by Air ( 3 gal)	appl			1.00	Feb	1.0000				
Karate Z	oz					1.5000				
App Fert by Air	cwt			1.00	Feb	1.4000				
Fert 41-0-0-4	cwt					1.4000				
App Fert by Air	cwt			1.00	Mar	1.4000				
Fert 41-0-0-4	cwt					1.4000				
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 2016 input prices.  
**Fertilization decisions should be based on soil tests.**  
**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**  
**Lime cost prorated for application every 3<sup>rd</sup> year.**



Table 8.D Estimated costs for field operations, per acre  
 Wheat followed by soybeans, 70 bu yield goal  
 All Areas, Mississippi, 2017

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.30						0.13	3.43	3.43
Lime (Spread)	ton	30.36						1.20	31.56	31.56
Disk Harrow	24'		1.22	1.40	1.94			0.18	4.74	4.78
Spin Spreader	5 ton		0.63	0.50	1.37			0.10	2.60	1.97
Phosphorus(46% P2O5)	cwt	21.88						0.87	22.75	22.75
Potash (60% K2O)	cwt	12.73						0.50	13.23	13.23
Field Cultivate Fld	32'		0.69	0.71	1.10			0.10	2.60	3.51
Grain Drill	20'		1.40	1.87	3.08			0.23	6.58	5.77
Wheat Seed Private	lb	22.50						0.80	23.30	23.30
CruiserMaxx	oz	20.70						0.74	21.44	21.44
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	21.30						0.67	21.97	21.97
Harmony Extra SG	oz	10.52						0.33	10.85	10.85
App by Air ( 5 gal)	appl	6.50						0.15	6.65	6.65
Axial XL	oz	19.02						0.45	19.47	19.47
App by Air ( 3 gal)	appl	5.00						0.10	5.10	5.10
Karate Z	oz	3.87						0.08	3.95	3.95
App Fert by Air	cwt	9.80						0.19	9.99	9.99
Fert 41-0-0-4	cwt	23.59						0.47	24.06	24.06
App Fert by Air	cwt	9.80						0.16	9.96	9.96
Fert 41-0-0-4	cwt	23.59						0.37	23.96	23.96
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Prosaro	oz	21.60						0.26	21.86	21.86
Header Wheat/Sorghum	25' Rigid		2.37	4.06	2.41			0.03	8.87	14.49
Haul Wheat	bu	18.20						0.07	18.27	18.27
TOTALS		302.76	6.31	8.54	9.90	0.00		8.67	336.18	30.52

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

Table 8.E Estimated monthly income and expense flows per acre  
 Wheat followed by soybeans, 70 bu yield goal  
 All Areas, Mississippi, 2017

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	296.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	6.50	5.00	0.00	6.50	0.00	0.00
FERTILIZERS	0.00	0.00	34.61	0.00	0.00	0.00	0.00	23.59	23.59	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	20.70	0.00	0.00	0.00	0.00	0.00	21.60	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.82	0.00	19.02	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	3.87	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	22.50	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	9.80	9.80	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	30.36	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	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	4.41	3.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41
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	2.54	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37
REPAIR & MAINTENANCE	0.00	0.00	2.61	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.06
INTEREST ON OP. CAP.	0.00	0.00	3.08	1.97	1.21	0.00	0.60	0.84	0.53	0.34	0.00	0.10
TOTAL DIRECT EXPENSES	0.00	0.00	80.91	57.02	39.53	0.00	26.12	43.10	33.92	28.44	0.00	27.14
NET INCOME	0.00	0.00	-80.91	-57.02	-39.53	0.00	-26.12	-43.10	-33.92	-28.44	0.00	269.66
NET INCOME TO DATE	0.00	0.00	-80.91	-137.93	-177.46	-177.46	-203.58	-246.68	-280.60	-309.04	-309.04	-39.38

Note: Cost of production estimates are based on 2016 input prices.

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

**Soil test cost is prorated for a test every 3<sup>rd</sup> year.**

**Lime cost prorated for application every 3<sup>rd</sup> year.**

\* Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre  
Wheat followed by soybeans, 70 bu yield goal  
All Areas, Mississippi, 2017

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Wheat			3.18	3.39	3.60	3.81	4.02	4.24	4.45	4.66	4.87	5.08	5.30
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	35.00	bu	-215 -246	-208 -238	-200 -231	-193 -224	-186 -216	-178 -209	-171 -201	-163 -194	-156 -186	-148 -179	-141 -172
60	42.00	bu	-195 -225	-186 -216	-177 -208	-168 -199	-159 -190	-150 -181	-141 -172	-132 -163	-124 -154	-115 -145	-106 -136
70	49.00	bu	-174 -205	-164 -195	-154 -184	-143 -174	-133 -163	-122 -153	-112 -143	-102 -132	-91 -122	-81 -111	-70 -101
80	56.00	bu	-154 -184	-142 -173	-130 -161	-118 -149	-106 -137	-95 -125	-83 -113	-71 -101	-59 -89	-47 -78	-35 -66
90	63.00	bu	-134 -164	-120 -151	-107 -137	-93 -124	-80 -111	-67 -97	-53 -84	-40 -71	-27 -57	-13 -44	-0 -30
100	70.00	bu	-113 -144	-98 -129	-83 -114	-69 -99	-54 -84	-39 -69	-24 -55	-9 -40	5 -25	19 -10	34 4
110	77.00	bu	-93 -123	-76 -107	-60 -91	-44 -74	-27 -58	-11 -42	4 -25	21 -9	37 6	53 23	70 39
120	84.00	bu	-72 -103	-54 -85	-37 -67	-19 -49	-1 -32	16 -14	34 3	51 21	69 39	87 57	105 74
130	91.00	bu	-52 -82	-32 -63	-13 -44	5 -24	24 -5	44 13	63 32	82 52	102 71	121 90	140 110
140	98.00	bu	-31 -62	-11 -41	9 -20	30 -0	51 20	72 41	92 62	113 83	134 103	155 124	175 145
150	105.00	bu	-11 -41	10 -19	33 2	55 24	77 47	99 69	122 91	144 113	166 136	188 158	211 180

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 2016 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, 2017

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	323,000	300	8	13.64	13.14	23.18	33.64	69.97	132.75	202.73
Combine (300-349 hp)	325 hp	336,000	300	8	16.73	13.14	28.44	35.00	76.58	138.10	214.68
Combine (350-399 hp)	355 hp	340,000	300	8	18.27	13.14	31.05	35.41	79.61	139.74	219.36
Combine (400-449 hp)	425 hp	409,000	300	8	21.87	13.14	37.18	42.60	92.93	168.10	261.03
Combine (450-499hp)	475 hp	423,000	300	8	24.44	13.14	41.56	44.06	98.76	173.86	272.62
Tractor ( 20-39hp)CB	MFWD 30	28,500	600	8	1.54	13.14	2.62	0.89	16.65	5.35	22.01
Tractor ( 20-39hp)RB	MFWD 30	21,300	600	8	1.54	13.14	2.62	0.66	16.43	4.00	20.43
Tractor ( 40-59hp)CB	2WD 50	32,200	600	8	2.57	13.14	4.37	1.00	18.52	6.05	24.57
Tractor ( 40-59hp)CB	MFWD 50	39,100	600	8	2.57	13.14	4.37	1.22	18.73	7.35	26.08
Tractor ( 40-59hp)RB	2WD 50	20,900	600	8	2.57	13.14	4.37	0.65	18.16	3.93	22.09
Tractor ( 40-59hp)RB	MFWD 50	24,300	600	8	2.57	13.14	4.37	0.75	18.27	4.56	22.84
Tractor ( 60-89hp)CB	2WD 75	48,300	600	8	3.86	13.14	6.56	1.50	21.21	9.08	30.29
Tractor ( 60-89hp)CB	MFWD 75	54,100	600	8	3.86	13.14	6.56	1.69	21.39	10.17	31.56
Tractor ( 60-89hp)RB	2WD 75	34,400	600	8	3.86	13.14	6.56	1.07	20.77	6.46	27.24
Tractor ( 60-89hp)RB	MFWD 75	35,800	600	8	3.86	13.14	6.56	1.11	20.82	6.73	27.55
Tractor ( 90-119hp)CB	2WD 105	65,300	600	8	5.40	13.14	9.18	2.04	24.36	12.28	36.64
Tractor ( 90-119hp)CB	MFWD 105	77,400	600	8	5.40	13.14	9.18	2.41	24.74	14.55	39.30
Tractor ( 90-119hp)RB	2WD 105	57,600	600	8	5.40	13.14	9.18	1.80	24.12	10.83	34.95
Tractor ( 90-119hp)RB	MFWD 105	62,100	600	8	5.40	13.14	9.18	1.94	24.26	11.67	35.94
Tractor(120-139hp)CB	2WD 130	177,000	600	8	6.69	13.14	11.37	5.53	30.04	33.28	63.33
Tractor(120-139hp)CB	MFWD 130	123,000	600	8	6.69	13.14	11.37	3.84	28.35	23.13	51.48
Tractor(140-159hp)CB	MFWD 150	143,000	600	8	7.72	13.14	13.12	4.46	30.73	26.89	57.62
Tractor(160-179hp)CB	MFWD 170	170,000	600	8	8.75	13.14	14.87	5.31	33.32	33.45	66.78
Tractor(180-199hp)CB	MFWD 190	186,000	600	8	9.77	13.14	16.62	5.81	35.57	36.60	72.17
Tractor(200-249hp)CB	MFWD 225	218,000	600	8	11.58	13.14	19.68	6.81	39.64	42.89	82.53
Tractor(250-349hp)CB	4WD 300	281,000	600	8	15.44	13.14	26.25	8.78	48.17	55.29	103.46
Tractor(250-349hp)CB	MFWD 300	297,000	600	8	15.44	13.14	26.25	9.28	48.67	58.44	107.11
Tractor(250-349hp)CB	Track 300	292,000	600	8	15.44	13.14	26.25	9.12	48.51	57.46	105.97
Tractor(350-449hp)	Track 400	351,000	600	8	20.58	13.14	35.00	10.96	59.11	69.07	128.18
Tractor(350-449hp)CB	4WD 400	325,000	600	8	20.58	13.14	35.00	10.15	58.29	63.95	122.25
Tractor(450-550hp)CB	4WD 500	359,000	600	8	25.73	13.14	43.75	11.21	68.10	70.64	138.75
Tractor(450-550hp)CB	Track 500	400,000	600	8	25.73	13.14	43.75	12.50	69.39	78.71	148.10
Utility Vehicle	800 CC	9,700	200	8	0.70	13.14	1.33	1.51	15.98	5.98	21.96
Utility Vehicle	900 CC	12,200	200	8	1.00	13.14	1.90	1.90	16.94	7.52	24.46
Utility Vehicle-mule	600 CC	6,500	200	8	0.50	13.14	0.95	1.01	15.10	4.00	19.11

## 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, 2017

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	5.72	5.63	10.79	22.15	42.59	64.74
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	5.72	7.89	14.13	27.75	55.78	83.53
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	3.82	5.27	9.61	18.71	37.92	56.63
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	4.84	6.77	15.85	27.48	62.56	90.05
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	3.82	5.35	12.51	21.69	49.39	71.09
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	5.72	9.02	21.58	36.33	85.18	121.51
Cotton Picker/Modu	6R-30 (500)	744,000	200	8	25.73	0.218	4.84	9.54	25.37	39.76	100.11	139.87
Cotton Picker/Modu	6R-38 (365)	536,000	200	8	20.58	0.172	3.82	6.03	14.43	24.28	56.94	81.22
Cotton Picker/Module	6R-38 (500)	745,000	200	8	25.73	0.172	3.82	7.53	20.05	31.42	79.14	110.56
Dry Applicator SP	70'300cuft	312,000	350	8	16.98	0.015	0.26	0.43	0.25	0.95	1.66	2.61
Sprayer 600-750gal	60' 175hp	193,000	350	8	9.00	0.017	0.31	0.26	0.18	0.76	1.19	1.96
Sprayer 600-825gal	80' 175hp	202,000	350	8	11.81	0.013	0.23	0.26	0.14	0.64	0.94	1.58
Sprayer 600-825gal	90' 250hp	273,000	350	8	12.73	0.011	0.20	0.25	0.17	0.63	1.13	1.76
Sprayer 800gal	100' 250hp	261,000	350	8	14.15	0.010	0.18	0.25	0.14	0.58	0.97	1.56
Sprayer 800gal	80' 250hp	250,000	350	8	12.86	0.013	0.23	0.28	0.17	0.69	1.16	1.86
Sprayer 1000-1400gal	90' 275hp	294,000	350	8	14.15	0.010	0.18	0.25	0.16	0.60	1.09	1.70
Sprayer 1000gal	100' 300hp	308,000	350	8	15.44	0.010	0.18	0.27	0.17	0.63	1.14	1.78
Sprayer 1200+gal	120' 300hp	343,000	350	8	15.44	0.008	0.15	0.23	0.16	0.54	1.06	1.61

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, 2017 (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	16R-30	MFWD 225	47,300	150	10	0.051	0.67	1.01	0.65	0.35	2.69	1.71	2.21	6.62
Cultivate & Post	4R-30	2WD 105	17,300	150	10	0.220	3.88	2.02	1.01	0.39	7.31	2.68	2.38	12.38
Cultivate & Post	4R-38	2WD 105	17,400	150	10	0.173	3.06	1.59	0.80	0.31	5.76	2.12	1.87	9.76
Cultivate & Post	6R-30	MFWD 150	21,600	150	10	0.146	2.59	1.92	0.84	0.65	6.01	2.23	3.94	12.19
Cultivate & Post	6R-38	MFWD 150	22,500	150	10	0.115	2.04	1.51	0.69	0.51	4.77	1.83	3.11	9.72
Cultivate & Post	8R-30	MFWD 190	25,900	150	10	0.110	1.94	1.82	0.75	0.63	5.17	2.00	4.02	11.20
Cultivate & Post	8R-38	MFWD 190	26,700	150	10	0.086	1.53	1.44	0.61	0.50	4.10	1.63	3.18	8.92
Cultivate & Post	8R-38 2x1	MFWD 190	38,300	150	10	0.057	1.02	0.96	0.59	0.33	2.91	1.56	2.11	6.59
Cultivate & Post	10R-30	MFWD 225	31,700	150	10	0.088	1.55	1.73	0.74	0.59	4.63	1.96	3.77	10.37
Cultivate & Post	12R-30	MFWD 225	41,000	150	10	0.073	1.29	1.44	0.80	0.49	4.04	2.11	3.14	9.30
Cultivate & Post	12R-38	MFWD 225	44,800	150	10	0.057	1.02	1.13	0.69	0.39	3.24	1.82	2.48	7.55
Cultivate & Post	16R-30	MFWD 225	55,100	150	10	0.055	0.97	1.08	0.80	0.37	3.23	2.13	2.35	7.73
Disk & Incorporate	14'	2WD 130	29,800	200	10	0.149	2.64	1.70	1.33	0.82	6.51	2.35	4.98	13.85
Disk & Incorporate	20'	MFWD 190	46,000	180	10	0.092	1.21	1.53	1.41	0.53	4.70	2.49	3.38	10.58
Disk & Incorporate	24'	MFWD 190	47,900	200	10	0.087	1.54	1.45	1.25	0.50	4.75	2.20	3.19	10.16
Disk & Incorporate	28'	MFWD 225	55,900	200	10	0.074	1.32	1.47	1.25	0.50	4.56	2.20	3.21	9.98
Disk & Incorporate	32'	MFWD 225	59,300	200	10	0.065	1.15	1.28	1.16	0.44	4.05	2.05	2.80	8.91
Disk Harrow	14'	2WD 130	24,400	180	10	0.140	1.84	1.59	0.95	0.77	5.16	2.00	4.67	11.84
Disk Harrow	20'	MFWD 190	40,600	180	10	0.098	1.29	1.63	1.10	0.57	4.60	2.34	3.59	10.53
Disk Harrow	24'	MFWD 190	42,500	180	10	0.081	1.07	1.36	0.96	0.47	3.87	2.04	2.99	8.91
Disk Harrow	28'	MFWD 225	50,400	180	10	0.070	0.92	1.38	0.98	0.47	3.76	2.07	3.00	8.84
Disk Harrow	32'	MFWD 225	53,900	180	10	0.061	0.80	1.20	0.91	0.41	3.35	1.94	2.63	7.92
Disk Harrow	42'	MFWD 225	94,400	180	10	0.046	0.61	0.92	1.22	0.31	3.08	2.59	2.00	7.67
Disk Harrow 40-100hp	14'	2WD 75	14,700	180	10	0.140	1.84	0.92	0.57	0.15	3.48	1.21	0.90	5.60
Disk Heavy	14'	MFWD 150	24,400	180	10	0.145	1.91	1.91	0.98	0.65	5.47	2.09	3.92	11.49
Disk Heavy	20'	MFWD 170	40,600	180	10	0.097	1.27	1.44	1.09	0.51	4.34	2.31	3.25	9.91
Disk Heavy	28'	MFWD 190	50,400	180	10	0.075	0.99	1.25	1.05	0.43	3.75	2.23	2.77	8.76
Disk Ripper	15'	MFWD 225	41,500	180	10	0.136	1.78	2.68	1.57	0.92	6.97	3.31	5.84	16.13
Ditcher		2WD 130	5,750	200	10	0.020	0.26	0.22	0.04	0.11	0.64	0.06	0.66	1.37
Ditcher (1m/160a)		2WD 130	5,750	200	10	0.009	0.12	0.10	0.02	0.05	0.30	0.02	0.31	0.64
Fert Appl (Liquid)	4R-38	MFWD 150	14,700	150	8	0.154	2.73	2.03	1.51	0.69	6.97	1.71	4.15	12.83
Fert Appl (Liquid)	6R-30	MFWD 170	13,700	150	8	0.130	2.31	1.94	1.19	0.69	6.15	1.34	4.38	11.88
Fert Appl (Liquid)	6R-38	MFWD 170	11,600	150	8	0.103	1.82	1.53	0.79	0.54	4.71	0.90	3.45	9.07
Fert Appl (Liquid)	8R-30	MFWD 190	14,500	150	8	0.098	1.73	1.63	0.94	0.57	4.88	1.07	3.59	9.55
Fert Appl (Liquid)	8R-38	MFWD 190	16,600	150	8	0.077	1.37	1.29	0.85	0.45	3.97	0.96	2.84	7.78
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	17,700	150	8	0.051	0.91	0.85	0.60	0.30	2.68	0.68	1.89	5.26
Fert Appl (Liquid)	12R-30	MFWD 225	19,000	150	8	0.078	1.38	1.54	0.99	0.53	4.46	1.12	3.37	8.95
Fert Appl (Liquid)	12R-38	MFWD 225	17,700	150	8	0.051	0.91	1.01	0.60	0.35	2.89	0.68	2.21	5.79
Field Cult & Inc	42'	MFWD 225	64,700	100	10	0.037	0.66	0.74	0.61	0.25	2.27	2.58	1.62	6.48
Field Cult & Inc	50'	MFWD 225	74,900	100	10	0.031	0.56	0.62	0.59	0.21	1.99	2.51	1.36	5.86
Field Cult & Inc Fld	24'	MFWD 170	38,000	100	10	0.066	1.16	0.98	0.62	0.35	3.13	2.65	2.21	7.99
Field Cult & Inc Fld	32'	MFWD 190	45,000	100	10	0.049	0.87	0.82	0.55	0.28	2.54	2.35	1.81	6.71
Field Cult & Inc Rdg	12'	2WD 150	18,000	100	10	0.132	2.33	1.73	0.59	0.44	5.11	2.51	2.68	10.31
Field Cultivate Fld	24'	MFWD 170	25,300	100	10	0.062	0.81	0.92	0.39	0.33	2.46	1.66	2.08	6.21
Field Cultivate Fld	32'	MFWD 190	39,600	100	10	0.046	0.61	0.77	0.46	0.27	2.12	1.95	1.70	5.78
Field Cultivate Fld	42'	MFWD 225	56,900	100	10	0.035	0.46	0.69	0.50	0.24	1.91	2.13	1.52	5.57
Field Cultivate Fld	50'	MFWD 225	65,300	100	10	0.029	0.39	0.58	0.48	0.20	1.67	2.06	1.28	5.01
Field Cultivate Rdg	12'	2WD 150	12,600	100	10	0.124	1.63	1.63	0.39	0.41	4.08	1.65	2.52	8.26
Grain Cart Corn	500 bu	MFWD 190	23,900	200	12	0.025	0.33	0.42	0.16	0.14	1.06	0.28	0.92	2.27
Grain Cart Corn	700 bu	MFWD 190	36,800	200	12	0.025	0.33	0.42	0.25	0.14	1.15	0.43	0.92	2.51
Grain Cart Corn	1000 bu	MFWD 225	48,700	200	12	0.025	0.33	0.49	0.33	0.17	1.33	0.57	1.08	3.00
Grain Cart Rice	500 bu	MFWD 190	23,900	200	12	0.062	0.82	1.03	0.40	0.36	2.62	0.70	2.28	5.61
Grain Cart Rice	700 bu	MFWD 190	36,800	200	12	0.055	0.72	0.91	0.54	0.31	2.50	0.95	2.01	5.46
Grain Cart Rice	1000 bu	MFWD 190	48,700	200	12	0.045	0.60	0.76	0.60	0.26	2.23	1.04	1.67	4.96
Grain Cart Soybean	500 bu	MFWD 190	23,900	200	12	0.025	0.33	0.42	0.16	0.14	1.07	0.28	0.93	2.29
Grain Cart Soybean	700 bu	MFWD 190	36,800	200	12	0.021	0.27	0.35	0.21	0.12	0.96	0.36	0.77	2.11
Grain Cart Soybean	1000 bu	MFWD 190	48,700	200	12	0.021	0.27	0.35	0.28	0.12	1.03	0.48	0.77	2.30
Grain Cart Wht/Sor	500 bu	MFWD 190	23,900	200	12	0.025	0.33	0.42	0.16	0.14	1.07	0.28	0.93	2.29
Grain Cart Wht/Sor	700 bu	MFWD 190	36,800	200	12	0.021	0.27	0.35	0.21	0.12	0.96	0.36	0.77	2.11
Grain Cart Wht/Sor	1000 bu	MFWD 190	48,700	200	12	0.021	0.27	0.35	0.28	0.12	1.03	0.48	0.77	2.30
Grain Drill	10'	2WD 130	26,800	150	8	0.188	4.18	2.14	1.89	1.04	9.26	3.62	6.27	19.17
Grain Drill	12'	2WD 130	24,100	150	8	0.157	3.48	1.78	1.42	0.86	7.56	2.71	5.23	15.51
Grain Drill	15'	MFWD 150	32,700	150	8	0.125	2.79	1.65	1.54	0.56	6.54	2.94	3.38	12.87
Grain Drill	20'	MFWD 170	38,800	150	8	0.094	2.09	1.40	1.37	0.50	5.36	2.62	3.15	11.14
Grain Drill	24'	MFWD 190	58,600	150	8	0.078	1.74	1.30	1.72	0.45	5.23	3.30	2.87	11.41
Grain Drill	30'	MFWD 225	65,300	150	8	0.062	1.39	1.23	1.53	0.42	4.60	2.94	2.69	10.24
Grain Drill	35'	MFWD 225	93,600	150	8	0.053	1.19	1.06	1.89	0.36	4.51	3.61	2.31	10.44
Grain Drill & Pre	10'	2WD 130	32,200	150	8	0.203	4.50	2.31	2.45	1.12	10.39	4.69	6.75	21.84
Grain Drill & Pre	12'	2WD 130	29,600	150	8	0.169	3.75	1.92	1.87	0.93	8.49	3.59	5.63	17.72
Grain Drill & Pre	15'	MFWD 150	38,100	150	8	0.135	3.00	1.77	1.93	0.60	7.32	3.69	3.64	14.66
Grain Drill & Pre	20'	MFWD 170	44,300	150	8	0.101	2.25	1.51	1.68	0.53	5.99	3.22	3.39	12.61
Grain Drill & Pre	24'	MFWD 190	64,000	150	8	0.084	1.87	1.40	2.03	0.49	5.80	3.88	3.09	12.79
Grain Drill & Pre	30'	MFWD 225	70,700	150	8	0.067	1.50	1.33	1.79	0.46	5.09	3.43	2.90	11.42
Grain Drill & Pre	35'	MFWD 225	99,100	150	8	0.058	1.28	1.14	2.15	0.39	4.98	4.12	2.48	11.59
Grain Drill & Pre T	8R-38	MFWD 225	50,500	150	8	0.062	1.39	1.23	1.19	0.42	4.25	2.27	2.69	9.22
Harrow - Rigid	21'	2WD 150	6,750	200	10	0.073	0.97	0.97	0.17	0.24	2.36	0.26	1.50	4.13
Harrow - Folding	24'	MFWD 190	12,700	200	10	0.064	0.85	1.07	0.28	0.37	2.58	0.43	2.36	5.39
Harrow - Folding	30'	MFWD 190	15,200	200	10	0.051	0.68	0.86	0.27	0.30	2.11	0.41	1.89	4.42
Harrow - Folding	40'	MFWD 190	17,400	200	10	0.038	0.51	0.64	0.23	0.22	1.61	0.35	1.42	3.39
Harrow - Folding	48'	MFWD 225	22,700	200	10	0.032	0.42	0.63	0.25	0.22	1.53	0.38	1.38	3.31

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2017 (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-----							
Harrow - Rigid	13'	2WD 130	4,950	200	10	0.119	1.56	1.35	0.20	0.66	3.79	0.31	3.97	8.08
Header - Corn	6R-30	265 hp	46,500	300	8	0.170	2.23	3.94	1.97	5.72	13.89	2.97	22.60	39.47
Header - Corn	6R-38	265 hp	46,700	300	8	0.134	1.76	3.11	1.56	4.52	10.97	2.36	17.84	31.18
Header - Corn	8R-30	265 hp	58,600	300	8	0.127	1.67	2.96	1.87	4.29	10.80	2.81	16.95	30.57
Header - Corn	8R-38	325 hp	59,600	300	8	0.100	1.32	2.87	1.50	3.53	9.23	2.26	13.94	25.44
Header - Corn	12R-20	325 hp	77,400	300	8	0.127	1.67	3.63	2.47	4.46	12.25	3.71	17.63	33.60
Header - Corn	12R-30	325 hp	91,600	300	8	0.085	1.11	2.42	1.94	2.97	8.46	2.93	11.75	23.16
Header - Draper (CL)	25' Rigid	265 hp	58,200	300	8	0.203	2.66	4.70	2.70	6.83	16.91	4.23	26.96	48.11
Header - Draper (CL)	30' Rigid	325 hp	67,200	300	8	0.169	2.22	4.81	2.60	5.92	15.56	4.07	23.37	43.01
Header - Draper (CL)	36' Rigid	355 hp	71,300	300	8	0.141	1.85	4.38	2.30	4.99	13.53	3.60	19.70	36.84
Header - Draper (SL)	25' Rigid	325 hp	58,200	300	8	0.176	2.31	5.00	2.34	6.16	15.82	3.67	24.30	43.80
Header - Draper (SL)	30' Rigid	325 hp	67,200	300	8	0.146	1.92	4.17	2.25	5.13	13.49	3.53	20.25	37.28
Header - Draper (SL)	36' Rigid	355 hp	71,300	300	8	0.122	1.60	3.79	1.99	4.32	11.72	3.12	17.07	31.93
Header - Rice (CL)	25' Rigid	325 hp	64,400	300	8	0.253	3.33	7.21	4.08	8.88	23.52	6.14	35.05	64.73
Header - Rice (CL)	30' Rigid	325 hp	74,100	300	8	0.211	2.77	6.01	3.91	7.40	20.11	5.89	29.21	55.22
Header - Rice (SL)	25' Rigid	325 hp	64,400	300	8	0.220	2.89	6.25	3.54	7.70	20.38	5.32	30.38	56.10
Header - Rice (SL)	30' Rigid	325 hp	74,100	300	8	0.183	2.40	5.21	3.39	6.41	17.43	5.10	25.31	47.86
Header -RiceStrp(CL)	20'	265 hp	48,600	300	8	0.253	3.33	5.88	3.08	8.54	20.84	4.64	33.70	59.18
Header -RiceStrp(CL)	24'	325 hp	53,300	300	8	0.211	2.77	6.01	2.81	7.40	19.01	4.24	29.21	52.47
Header -RiceStrp(CL)	32'	325 hp	58,700	300	8	0.158	2.08	4.51	2.32	5.55	14.47	3.50	21.90	39.89
Header -RiceStrp(SL)	20'	265 hp	48,600	300	8	0.220	2.89	5.10	2.67	7.40	18.06	4.02	29.20	51.29
Header -RiceStrp(SL)	24'	325 hp	53,300	300	8	0.183	2.40	5.21	2.44	6.41	16.48	3.67	25.31	45.47
Header -RiceStrp(SL)	32'	325 hp	58,700	300	8	0.137	1.80	3.91	2.01	4.81	12.54	3.03	18.98	34.57
Header -Soybean	22' Flex	265 hp	31,800	300	8	0.116	1.52	2.69	0.92	3.90	9.04	1.38	15.41	25.84
Header -Soybean	25' Flex	325 hp	34,300	300	8	0.102	1.34	2.90	0.87	3.57	8.70	1.31	14.10	24.12
Header -Soybean	30' Flex	325 hp	39,600	300	8	0.085	1.11	2.42	0.84	2.97	7.36	1.26	11.75	20.38
Header -Soybean	35' Flex	355 hp	45,700	300	8	0.072	0.95	2.26	0.83	2.58	6.64	1.25	10.19	18.09
Header Wheat/Sorghum	22' Rigid	265 hp	19,600	300	8	0.116	1.52	2.69	0.56	3.90	8.69	0.85	15.41	24.96
Header Wheat/Sorghum	25' Rigid	325 hp	24,300	300	8	0.102	1.34	2.90	0.62	3.57	8.44	0.93	14.10	23.48
Header Wheat/Sorghum	30' Rigid	325 hp	28,300	300	8	0.085	1.11	2.42	0.60	2.97	7.12	0.90	11.75	19.78
Land Plane	50'x16'	MFWD 190	14,300	200	10	0.151	1.99	2.52	0.43	0.88	5.82	1.14	5.55	12.52
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	0.11	0.28
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	0.11	0.27
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	0.11	0.27
Module Builder	4R-38(250)	MFWD 190	34,700	200	10	0.257	5.72	4.28	2.23	1.49	13.74	4.54	9.43	27.72
Module Builder	4R-38(350)	MFWD 190	34,700	200	10	0.257	5.72	4.28	2.23	1.49	13.74	4.54	9.43	27.72
Module Builder	4R2x1(350)	MFWD 190	34,700	200	10	0.172	3.82	2.86	1.49	1.00	9.18	3.03	6.30	18.53
Module Builder	6R-30(355)	MFWD 190	34,700	200	10	0.218	4.84	3.62	1.89	1.26	11.63	3.85	7.98	23.47
Module Builder	6R-38(355)	MFWD 190	34,700	200	10	0.172	3.82	2.86	1.49	1.00	9.18	3.03	6.30	18.53
NT Grain Drill	10'	2WD 130	34,500	150	8	0.235	5.23	2.68	3.04	1.30	12.26	5.83	7.84	25.94
NT Grain Drill	12'	2WD 130	41,800	150	8	0.163	3.63	1.86	2.56	0.90	8.96	4.90	5.44	19.32
NT Grain Drill	15'	MFWD 150	49,700	150	8	0.130	2.90	1.71	2.44	0.58	7.65	4.66	3.52	15.84
NT Grain Drill	20'	MFWD 170	65,600	150	8	0.098	2.18	1.46	2.41	0.52	6.57	4.62	3.28	14.48
NT Grain Drill	24'	MFWD 190	82,400	150	8	0.081	1.81	1.36	2.52	0.47	6.18	4.83	2.99	14.01
NT Grain Drill	30'	MFWD 225	94,200	150	8	0.065	1.45	1.28	2.31	0.44	5.50	4.42	2.80	12.73
NT Grain Drill & Pre	10'	2WD 130	39,900	150	8	0.211	4.69	2.40	3.16	1.17	11.43	6.05	7.04	24.53
NT Grain Drill & Pre	12'	2WD 130	47,200	150	8	0.176	3.91	2.00	3.12	0.97	10.01	5.96	5.86	21.84
NT Grain Drill & Pre	15'	MFWD 150	55,100	150	8	0.141	3.13	1.85	2.91	0.63	8.52	5.57	3.79	17.89
NT Grain Drill & Pre	20'	MFWD 170	71,000	150	8	0.105	2.34	1.57	2.81	0.56	7.29	5.38	3.53	16.22
NT Grain Drill & Pre	24'	MFWD 190	87,800	150	8	0.088	1.95	1.46	2.90	0.51	6.83	5.55	3.22	15.61
NT Grain Drill & Pre	30'	MFWD 225	99,600	150	8	0.070	1.56	1.38	2.63	0.48	6.06	5.03	3.02	14.12
NT Plant&Pre-Folding	8R-38	MFWD 170	54,300	150	8	0.083	1.85	1.24	1.70	0.44	5.24	3.25	2.79	11.30
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	86,900	150	8	0.055	1.23	0.82	1.81	0.29	4.17	3.47	1.86	9.50
NT Plant&Pre-Folding	12R-20	MFWD 190	71,600	150	8	0.105	2.34	1.75	2.83	0.61	7.56	5.43	3.87	16.86
NT Plant&Pre-Folding	12R-30	MFWD 190	78,100	150	8	0.070	1.56	1.17	2.06	0.40	5.21	3.95	2.58	11.74
NT Plant&Pre-Folding	12R-38	MFWD 190	86,900	150	8	0.055	1.23	0.92	1.81	0.32	4.29	3.47	2.03	9.80
NT Plant&Pre-Folding	16R-30	MFWD 190	109,000	150	8	0.052	1.17	0.87	2.16	0.30	4.52	4.13	1.93	10.59
NT Plant&Pre-Folding	23R-15	MFWD 190	141,000	150	8	0.073	1.63	1.22	3.88	0.42	7.16	7.42	2.68	17.27
NT Plant&Pre-Folding	24R-15	MFWD 225	148,000	150	8	0.070	1.56	1.38	3.91	0.48	7.34	7.48	3.02	17.85
NT Plant&Pre-Folding	24R-20	MFWD 190	163,000	150	8	0.052	1.17	0.87	3.23	0.30	5.59	6.18	1.93	13.71
NT Plant&Pre-Folding	24R-30	MFWD 190	199,000	150	8	0.035	0.78	0.58	2.63	0.20	4.20	5.03	1.29	10.52
NT Plant&Pre-Folding	31R-15	MFWD 225	173,000	150	8	0.054	1.21	1.07	3.54	0.37	6.20	6.78	2.34	15.33
NT Plant&Pre-Folding	32R-15	MFWD 225	192,000	150	8	0.052	1.17	1.04	3.80	0.36	6.38	7.28	2.26	15.93
NT Plant&Pre-Rigid	4R-30	2WD 130	28,200	150	8	0.211	4.69	2.40	2.23	1.17	10.50	4.27	7.04	21.83
NT Plant&Pre-Rigid	4R-38	2WD 130	30,500	150	8	0.166	3.69	1.89	1.90	0.92	8.41	3.64	5.54	17.60
NT Plant&Pre-Rigid	6R-30	MFWD 150	39,600	150	8	0.141	3.13	1.85	2.09	0.63	7.70	4.00	3.79	15.50
NT Plant&Pre-Rigid	6R-38	MFWD 150	35,400	150	8	0.111	2.47	1.46	1.47	0.49	5.90	2.82	2.99	11.73
NT Plant&Pre-Rigid	8R-30	MFWD 170	45,600	150	8	0.105	2.34	1.57	1.80	0.56	6.29	3.45	3.53	13.29
NT Plant&Pre-Rigid	8R-38	MFWD 170	42,900	150	8	0.083	1.85	1.24	1.34	0.44	4.88	2.57	2.79	10.25
NT Plant&Pre-Rigid	10R-30	MFWD 190	47,400	150	8	0.084	1.87	1.40	1.50	0.49	5.28	2.87	3.09	11.25
NT Plant&Pre-Rigid	11R-15	MFWD 170	55,200	150	8	0.143	3.19	2.14	2.97	0.76	9.07	5.69	4.81	19.59
NT Plant&Pre-Rigid	11R-20	MFWD 170	50,700	150	8	0.115	2.56	1.71	2.19	0.61	7.09	4.20	3.86	15.16
NT Plant&Pre-Rigid	12R-20	MFWD 190	57,100	150	8	0.105	2.34	1.75	2.26	0.61	6.98	4.33	3.87	15.18
NT Plant&Pre-Rigid	12R-30	MFWD 190	72,000	150	8	0.070	1.56	1.17	1.90	0.40	5.05	3.64	2.58	11.27
NT Plant&Pre-Rigid	13R-18/20	MFWD 225	6,210	150	8	0.097	2.16	1.91	0.22	0.66	4.97	0.43	4.18	9.59
NT Plant&Pre-Rigid	15R-15	MFWD 190	71,000	150	8	0.113	2.51	1.88	3.01	0.65	8.06	5.76	4.14	17.96
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	159,000	150	8	0.055	1.23	1.09	3.31	0.37	6.03	6.34	2.38	14.76
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	129,000	150	8	0.083	1.85	1.64	4.04	0.56	8.11	7.73	3.58	19.43
NT Plant&Pre-Folding	8R-38	MFWD 170	48,000	150	8	0.077	1.72	1.15	1.39	0.41	4.68	2.67	2.59	9.95

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2017 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
NT Plant-Folding	8R-38 2x1	MFWD 170	79,100	150	8	0.051	1.14	0.76	1.53	0.27	3.72	2.93	1.72	8.38
NT Plant-Folding	12R-20	MFWD 190	66,100	150	8	0.098	2.18	1.63	2.43	0.57	6.81	4.65	3.59	15.06
NT Plant-Folding	12R-30	MFWD 190	70,300	150	8	0.065	1.45	1.08	1.72	0.38	4.64	3.30	2.39	10.34
NT Plant-Folding	12R-38	MFWD 190	79,100	150	8	0.051	1.14	0.85	1.53	0.30	3.84	2.93	1.89	8.66
NT Plant-Folding	16R-30	MFWD 190	101,000	150	8	0.049	1.09	0.81	1.86	0.28	4.05	3.55	1.79	9.40
NT Plant-Folding	23R-15	MFWD 190	133,000	150	8	0.068	1.51	1.13	3.40	0.39	6.44	6.50	2.49	15.44
NT Plant-Folding	24R-15	MFWD 225	140,000	150	8	0.065	1.45	1.28	3.43	0.44	6.62	6.57	2.80	16.01
NT Plant-Folding	24R-20	MFWD 190	156,000	150	8	0.049	1.09	0.81	2.87	0.28	5.06	5.49	1.79	12.35
NT Plant-Folding	24R-30	MFWD 190	180,000	150	8	0.032	0.72	0.54	2.20	0.19	3.67	4.22	1.19	9.09
NT Plant-Folding	31R-15	MFWD 225	154,000	150	8	0.050	1.12	0.99	2.93	0.34	5.40	5.60	2.17	13.18
NT Plant-Folding	32R-15	MFWD 225	173,000	150	8	0.049	1.09	0.96	3.18	0.33	5.57	6.09	2.10	13.77
NT Plant-Rigid	4R-30	2WD 130	22,700	150	8	0.196	4.36	2.23	1.67	1.08	9.35	3.19	6.53	19.09
NT Plant-Rigid	4R-38	2WD 130	25,100	150	8	0.154	3.43	1.75	1.45	0.85	7.50	2.78	5.14	15.43
NT Plant-Rigid	6R-30	MFWD 150	34,100	150	8	0.130	2.90	1.71	1.67	0.58	6.88	3.20	3.52	13.61
NT Plant-Rigid	6R-38	MFWD 150	29,900	150	8	0.103	2.29	1.35	1.15	0.46	5.27	2.21	2.78	10.27
NT Plant-Rigid	8R-30	MFWD 170	40,200	150	8	0.098	2.18	1.46	1.48	0.52	5.64	2.83	3.28	11.76
NT Plant-Rigid	8R-38	MFWD 170	37,500	150	8	0.077	1.72	1.15	1.09	0.41	4.38	2.08	2.59	9.06
NT Plant-Rigid	10R-30	MFWD 190	41,900	150	8	0.078	1.74	1.30	1.23	0.45	4.74	2.36	2.87	9.97
NT Plant-Rigid	11R-15	MFWD 170	49,800	150	8	0.133	2.96	1.98	2.49	0.70	8.15	4.77	4.46	17.40
NT Plant-Rigid	11R-20	MFWD 170	45,300	150	8	0.107	2.38	1.59	1.82	0.57	6.37	3.48	3.59	13.45
NT Plant-Rigid	12R-20	MFWD 190	51,700	150	8	0.098	2.18	1.63	1.90	0.57	6.28	3.64	3.59	13.52
NT Plant-Rigid	12R-30	MFWD 190	56,200	150	8	0.065	1.45	1.08	1.37	0.38	4.30	2.63	2.39	9.33
NT Plant-Rigid	13R-18/20	MFWD 225	56,600	150	8	0.090	2.01	1.79	1.93	0.61	6.35	3.69	3.90	13.95
NT Plant-Rigid	15R-15	MFWD 190	63,200	150	8	0.105	2.33	1.74	2.48	0.61	7.17	4.76	3.84	15.78
NT Plant-TwinRow	12R-30/40	MFWD 225	140,000	150	8	0.051	1.14	1.01	2.71	0.35	5.23	5.19	2.21	12.63
NT Plant-TwinRow	8R-30/40	MFWD 225	123,000	150	8	0.077	1.72	1.52	3.58	0.52	7.36	6.85	3.33	17.54
Peanut Cond. & Lifter	6-Row	MFWD 190	12,900	300	20	0.100	1.31	1.66	0.21	0.58	3.77	0.31	3.66	7.75
Peanut Conditioner	6-Row	MFWD 190	14,900	300	20	0.100	1.31	1.66	0.29	0.58	3.85	0.32	3.66	7.83
Peanut Dig/Invertor	4R-30	MFWD 190	29,000	300	15	0.235	3.09	3.92	1.70	1.37	10.09	2.03	8.63	20.76
Peanut Dig/Invertor	4R-38	MFWD 190	29,000	300	15	0.186	2.44	3.09	1.34	1.08	7.96	1.60	6.81	16.39
Peanut Dig/Invertor	6R-38	MFWD 190	42,100	300	15	0.124	1.63	2.06	0.91	0.72	5.33	1.55	4.54	11.42
Peanut Dump Cart	6-Row	MFWD 190	47,500	300	20	0.310	4.07	5.15	0.85	1.80	11.88	3.49	11.34	26.72
Peanut Harvester	4R-30	MFWD 225	133,000	300	20	0.849	11.16	16.73	6.40	5.79	40.10	24.53	36.46	101.10
Peanut Harvester	4R-38	MFWD 225	133,000	300	20	0.934	12.28	18.40	7.04	6.36	44.09	28.23	40.09	112.41
Peanut Harvester	6R-38	MFWD 225	147,000	300	20	0.625	8.21	12.30	4.44	4.25	29.21	20.86	26.81	76.89
Peanut Lifter	6-Row	MFWD 225	6,300	300	20	0.100	1.31	1.96	0.13	0.68	4.09	0.13	4.28	8.52
Peanut Plt&Pre Fold.	12R-38	MFWD 190	79,800	150	8	0.080	1.78	1.33	2.40	0.46	5.99	4.60	2.94	13.54
Peanut Plt&Pre Rigid	8R-30	MFWD 190	41,000	150	8	0.152	3.39	2.54	2.34	0.88	9.16	4.49	5.59	19.25
Peanut Plt&Pre Rigid	8R-38	MFWD 190	38,200	150	8	0.120	2.68	2.00	1.73	0.70	7.12	3.30	4.42	14.85
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	0.10	0.33
Pipe Trailer 1m/160a	30'	2WD 130	1,380	100	15	0.003	0.18	0.04	0.00	0.02	0.24	0.00	0.12	0.37
Plant & Pre-Folding	8R-38	MFWD 170	48,700	150	8	0.080	1.78	1.19	1.46	0.42	4.86	2.80	2.68	10.35
Plant & Pre-Folding	8R-38 2x1	MFWD 170	79,800	150	8	0.053	1.18	0.79	1.59	0.28	3.86	3.05	1.78	8.71
Plant & Pre-Folding	12R-20	MFWD 190	64,600	150	8	0.101	2.25	1.68	2.45	0.59	6.99	4.70	3.71	15.41
Plant & Pre-Folding	12R-30	MFWD 190	71,100	150	8	0.067	1.50	1.12	1.80	0.39	4.82	3.45	2.47	10.75
Plant & Pre-Folding	12R-38	MFWD 190	79,800	150	8	0.053	1.18	0.88	1.59	0.31	3.98	3.05	1.95	8.99
Plant & Pre-Folding	16R-30	MFWD 190	99,600	150	8	0.050	1.12	0.84	1.89	0.29	4.16	3.62	1.85	9.64
Plant & Pre-Folding	23R-15	MFWD 190	127,000	150	8	0.070	1.56	1.17	3.35	0.40	6.50	6.42	2.58	15.50
Plant & Pre-Folding	24R-15	MFWD 225	134,000	150	8	0.067	1.50	1.33	3.40	0.46	6.69	6.50	2.90	16.10
Plant & Pre-Folding	24R-20	MFWD 190	149,000	150	8	0.050	1.12	0.84	2.83	0.29	5.10	5.42	1.85	12.38
Plant & Pre-Folding	24R-30	MFWD 190	185,000	150	8	0.033	0.75	0.56	2.34	0.19	3.85	4.49	1.23	9.59
Plant & Pre-Folding	31R-15	MFWD 225	155,000	150	8	0.052	1.16	1.03	3.04	0.35	5.60	5.83	2.25	13.68
Plant & Pre-Folding	32R-15	MFWD 225	173,000	150	8	0.050	1.12	0.99	3.29	0.34	5.76	6.30	2.17	14.24
Plant & Pre-Rigid	4R-30	2WD 130	25,800	150	8	0.203	4.50	2.31	1.96	1.12	9.90	3.75	6.75	20.42
Plant & Pre-Rigid	4R-38	2WD 130	28,200	150	8	0.159	3.54	1.81	1.69	0.88	7.94	3.23	5.32	16.50
Plant & Pre-Rigid	6R-30	MFWD 150	36,000	150	8	0.135	3.00	1.77	1.82	0.60	7.21	3.49	3.64	14.35
Plant & Pre-Rigid	6R-38	MFWD 150	31,900	150	8	0.106	2.37	1.40	1.27	0.47	5.53	2.44	2.87	10.85
Plant & Pre-Rigid	8R-30	MFWD 170	41,000	150	8	0.101	2.25	1.51	1.56	0.53	5.86	2.98	3.39	12.24
Plant & Pre-Rigid	8R-38	MFWD 170	38,200	150	8	0.080	1.78	1.19	1.14	0.42	4.55	2.19	2.68	9.43
Plant & Pre-Rigid	10R-30	MFWD 190	41,500	150	8	0.081	1.80	1.35	1.26	0.47	4.89	2.41	2.97	10.28
Plant & Pre-Rigid	11R-15	MFWD 170	48,800	150	8	0.148	3.29	2.20	2.71	0.78	8.99	5.18	4.95	19.14
Plant & Pre-Rigid	11R-20	MFWD 170	44,300	150	8	0.110	2.46	1.65	1.84	0.58	6.54	3.52	3.71	13.78
Plant & Pre-Rigid	12R-20	MFWD 190	50,100	150	8	0.101	2.25	1.68	1.90	0.59	6.44	3.64	3.71	13.80
Plant & Pre-Rigid	12R-30	MFWD 190	65,000	150	8	0.067	1.50	1.12	1.64	0.39	4.67	3.15	2.47	10.30
Plant & Pre-Rigid	13R-18/20	MFWD 225	54,500	150	8	0.093	2.07	1.84	1.91	0.63	6.46	3.65	4.01	14.14
Plant & Pre-Rigid	15R-15	MFWD 190	62,200	150	8	0.108	2.41	1.80	2.53	0.63	7.38	4.84	3.97	16.20
Plant & Pre-TwinRow	12R-30/40	MFWD 225	145,000	150	8	0.053	1.18	1.05	2.90	0.36	5.50	5.55	2.29	13.35
Plant & Pre-TwinRow	8R-30/40	MFWD 225	119,000	150	8	0.080	1.78	1.58	3.58	0.54	7.49	6.85	3.44	17.78
Plant - Folding	8R-38	MFWD 170	43,300	150	8	0.074	1.65	1.10	1.21	0.39	4.36	2.31	2.49	9.17
Plant - Folding	8R-38 2x1	MFWD 170	72,000	150	8	0.049	1.10	0.73	1.33	0.26	3.44	2.56	1.65	7.66
Plant - Folding	12R-20	MFWD 190	59,100	150	8	0.094	2.09	1.56	2.08	0.54	6.29	3.99	3.45	13.74
Plant - Folding	12R-30	MFWD 190	63,300	150	8	0.062	1.39	1.04	1.49	0.36	4.29	2.85	2.30	9.45
Plant - Folding	12R-38	MFWD 190	72,000	150	8	0.049	1.10	0.82	1.33	0.28	3.55	2.56	1.81	7.93
Plant - Folding	16R-30	MFWD 190	91,800	150	8	0.047	1.04	0.78	1.62	0.27	3.72	3.10	1.72	8.55
Plant - Folding	23R-15	MFWD 190	119,000	150	8	0.065	1.45	1.08	2.92	0.38	5.84	5.58	2.39	13.83
Plant - Folding	24R-15	MFWD 225	126,000	150	8	0.062	1.39	1.23	2.97	0.42	6.03	5.68	2.69	14.40
Plant - Folding	24R-20	MFWD 190	142,000	150	8	0.047	1.04	0.78	2.51	0.27	4.61	4.80	1.72	11.14
Plant - Folding	24R-30	MFWD 190	166,000	150	8	0.031	0.69	0.52	1.95	0.18	3.35	3.74	1.15	8.25

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2017 (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-----							
Plant - Folding	31R-15	MFWD 225	136,000	150	8	0.048	1.08	0.95	2.48	0.33	4.85	4.75	2.09	11.70
Plant - Folding	32R-15	MFWD 225	155,000	150	8	0.047	1.04	0.92	2.74	0.32	5.03	5.24	2.02	12.29
Plant - Rigid	4R-30	2WD 130	20,400	150	8	0.188	4.18	2.14	1.44	1.04	8.81	2.75	6.27	17.85
Plant - Rigid	4R-38	2WD 130	22,700	150	8	0.148	3.29	1.68	1.26	0.82	7.07	2.41	4.94	14.43
Plant - Rigid	6R-30	MFWD 150	30,600	150	8	0.125	2.79	1.65	1.44	0.56	6.44	2.75	3.38	12.58
Plant - Rigid	6R-38	MFWD 150	26,400	150	8	0.099	2.20	1.30	0.98	0.44	4.93	1.87	2.66	9.48
Plant - Rigid	8R-30	MFWD 170	35,500	150	8	0.094	2.09	1.40	1.25	0.50	5.25	2.40	3.15	10.80
Plant - Rigid	8R-38	MFWD 170	32,800	150	8	0.074	1.65	1.10	0.91	0.39	4.07	1.75	2.49	8.32
Plant - Rigid	10R-30	MFWD 190	36,100	150	8	0.075	1.67	1.25	1.02	0.43	4.38	1.95	2.76	9.10
Plant - Rigid	11R-15	MFWD 170	43,400	150	8	0.137	3.05	2.04	2.24	0.73	8.07	4.28	4.60	16.96
Plant - Rigid	11R-20	MFWD 170	38,900	150	8	0.103	2.28	1.53	1.50	0.54	5.87	2.87	3.44	12.19
Plant - Rigid	12R-20	MFWD 190	44,600	150	8	0.094	2.09	1.56	1.57	0.54	5.78	3.01	3.45	12.25
Plant - Rigid	12R-30	MFWD 190	57,200	150	8	0.062	1.39	1.04	1.34	0.36	4.15	2.57	2.30	9.03
Plant - Rigid	13R-18/20	MFWD 225	49,000	150	8	0.086	1.92	1.71	1.59	0.59	5.82	3.05	3.72	12.61
Plant - Rigid	15R-15	2WD 150	54,400	150	8	0.094	2.09	1.23	1.92	0.31	5.57	3.67	1.91	11.16
Plant - TwinRow	12R-30/40	MFWD 225	126,000	150	8	0.049	1.10	0.97	2.34	0.33	4.76	4.48	2.12	11.37
Plant - TwinRow	8R-30/40	MFWD 225	114,000	150	8	0.074	1.65	1.46	3.18	0.50	6.81	6.09	3.19	16.10
Roller/Cultipacker	12'	2WD 130	6,520	300	12	0.124	1.63	1.41	0.19	0.68	3.93	0.26	4.14	8.33
Roller/Cultipacker	20'	MFWD 150	17,000	300	12	0.074	0.98	0.97	0.29	0.33	2.59	0.41	2.00	5.01
Roller/Cultipacker	30'	MFWD 170	18,700	300	12	0.049	0.65	0.74	0.21	0.26	1.87	0.30	1.66	3.84
Roller/Cultipacker	38'	MFWD 225	20,600	300	12	0.039	0.51	0.77	0.19	0.26	1.74	0.26	1.68	3.69
Roller/Stubble	20'	2WD 50	13,500	300	12	0.074	0.98	0.32	0.23	0.04	1.59	0.32	0.29	2.21
Roller/Stubble	32'	MFWD 225	22,800	300	12	0.046	0.61	0.91	0.25	0.31	2.10	0.34	2.00	4.44
Rotary Cutter	7'	MFWD 130	4,690	185	10	0.168	2.21	1.91	0.64	0.64	5.41	0.45	3.89	9.76
Rotary Cutter	12'	2WD 150	16,000	185	10	0.098	1.29	1.28	1.27	0.33	4.18	0.89	1.99	7.07
Rotary Cutter-Flex	15'	MFWD 150	19,400	185	10	0.078	1.03	1.03	1.23	0.35	3.65	0.87	2.11	6.63
Rotary Cutter-Flex	20'	MFWD 150	28,100	185	10	0.058	0.77	0.77	1.34	0.26	3.15	0.94	1.58	5.68
Row Cond & Inc-Fold.	26'	MFWD 190	24,700	100	10	0.063	1.12	1.05	0.39	0.36	2.93	1.65	2.32	6.91
Row Cond & Inc-Fold.	38'	MFWD 225	32,400	100	10	0.043	0.76	0.85	0.35	0.29	2.26	1.48	1.86	5.61
Row Cond & Inc-Rigid	13'	2WD 130	13,300	100	10	0.126	2.24	1.44	0.42	0.70	4.81	1.78	4.22	10.81
Row Cond & Inc-Rigid	21'	2WD 170	16,700	100	10	0.078	1.38	1.16	0.32	0.29	3.17	1.38	1.83	6.40
Row Cond & Inc-Rigid	26'	MFWD 190	19,600	100	10	0.026	0.47	0.44	0.13	0.15	1.19	0.55	0.97	2.72
Row Cond Folding	26'	MFWD 225	19,300	100	10	0.059	0.78	1.17	0.28	0.40	2.65	1.21	2.56	6.43
Row Cond Folding	38'	MFWD 225	24,600	100	10	0.040	0.53	0.80	0.25	0.27	1.87	1.06	1.75	4.68
Row Cond Rigid	13'	2WD 130	7,840	100	10	0.119	1.56	1.35	0.23	0.66	3.82	0.98	3.97	8.78
Row Cond Rigid	21'	2WD 170	11,200	100	10	0.073	0.97	1.10	0.20	0.27	2.55	0.87	1.73	5.16
Row Cond Rigid	26'	MFWD 190	14,200	100	10	0.059	0.78	0.99	0.21	0.34	2.33	0.89	2.18	5.41
Row Cond./Roll-Fold.	26'	MFWD 190	22,200	160	10	0.072	0.94	1.19	0.40	0.41	2.96	1.05	2.63	6.66
Row Cond./Roll-Fold.	30'	MFWD 190	35,600	160	10	0.062	0.82	1.03	0.55	0.36	2.77	1.46	2.28	6.53
Row Cond./Roll-Fold.	40'	MFWD 225	34,300	160	10	0.046	0.61	0.92	0.40	0.31	2.26	1.06	2.01	5.33
Row Cond./Roll-Rigid	21'	MFWD 190	23,000	160	10	0.089	1.17	1.48	0.51	0.51	3.69	1.35	3.26	8.31
Row Cond./Roll-Rigid	26'	MFWD 190	25,800	160	10	0.072	0.94	1.19	0.46	0.41	3.03	1.22	2.63	6.89
Spin Spreader	5 ton	MFWD 190	11,800	100	8	0.042	0.93	0.69	0.27	0.24	2.15	0.56	1.54	4.25
Spray (ATV Ropewick)	75"	800 CC	660	200	8	0.260	4.60	0.34	0.08	0.39	5.42	0.09	1.55	7.07
Spray (ATV)	12'/17'	800 CC	2,280	200	8	0.112	1.99	0.15	0.12	0.17	2.43	0.14	0.67	3.25
Spray (ATV)	20'	800 CC	1,950	200	8	0.084	1.49	0.11	0.07	0.12	1.81	0.09	0.50	2.41
Spray (Band)	27' Fold	MFWD 170	5,440	200	8	0.062	1.10	0.93	0.15	0.33	2.53	0.19	2.09	4.82
Spray (Band)	40' Fold	MFWD 170	7,810	200	8	0.042	0.74	0.62	0.15	0.22	1.75	0.18	1.41	3.35
Spray (Band)	50' Fold	MFWD 170	6,940	200	8	0.033	0.59	0.50	0.11	0.17	1.39	0.13	1.13	2.65
Spray (Band)	53' Fold	MFWD 170	9,620	200	8	0.031	0.56	0.47	0.14	0.16	1.35	0.17	1.06	2.59
Spray (Band)	60' Fold	MFWD 170	18,600	200	8	0.028	0.49	0.41	0.24	0.14	1.31	0.29	0.94	2.55
Spray (Bcast/HB)	13' Rigid	MFWD 150	5,480	200	8	0.130	2.30	1.70	0.33	0.58	4.92	0.40	3.50	8.82
Spray (Bcast/HB)	20' Rigid	MFWD 150	6,450	200	8	0.084	1.49	1.11	0.25	0.37	3.23	0.30	2.27	5.82
Spray (Bcast/HB)	27' Fold	MFWD 170	10,700	200	8	0.062	1.10	0.93	0.31	0.33	2.68	0.37	2.09	5.16
Spray (Bcast/HB)	27' Rigid	MFWD 170	7,830	200	8	0.062	1.10	0.93	0.23	0.33	2.60	0.27	2.09	4.97
Spray (Bcast/HB)	30' Fold	MFWD 170	16,500	200	8	0.056	0.99	0.83	0.43	0.29	2.57	0.52	1.88	4.98
Spray (Bcast/HB)	40' Fold	MFWD 170	16,100	200	8	0.042	0.74	0.62	0.31	0.22	1.92	0.38	1.41	3.72
Spray (Broadcast)	27'	MFWD 170	5,440	200	8	0.062	1.10	0.93	0.15	0.33	2.53	0.19	2.09	4.82
Spray (Broadcast)	40'	MFWD 170	7,810	200	8	0.042	0.74	0.62	0.15	0.22	1.75	0.18	1.41	3.35
Spray (Broadcast)	50'	MFWD 170	6,940	200	8	0.033	0.59	0.50	0.11	0.17	1.39	0.13	1.13	2.65
Spray (Broadcast)	53'	MFWD 170	9,620	200	8	0.031	0.56	0.47	0.14	0.16	1.35	0.17	1.06	2.59
Spray (Broadcast)	60'	MFWD 170	18,600	200	8	0.028	0.49	0.41	0.24	0.14	1.31	0.29	0.94	2.55
Spray (Direct/Hood)	8R-30	MFWD 170	15,600	200	8	0.084	1.49	1.25	0.61	0.44	3.82	0.74	2.83	7.39
Spray (Direct/Hood)	8R-38	MFWD 170	16,600	200	8	0.066	1.18	0.99	0.52	0.35	3.05	0.62	2.23	5.91
Spray (Direct/Hood)	12R-30	MFWD 170	22,200	200	8	0.056	0.99	0.83	0.58	0.29	2.72	0.70	1.88	5.31
Spray (Direct/Hood)	12R-38	MFWD 170	22,500	200	8	0.044	0.78	0.66	0.46	0.23	2.15	0.56	1.48	4.21
Spray (Direct/Layby)	8R-30	MFWD 170	12,700	200	8	0.084	1.49	1.25	0.50	0.44	3.70	0.60	2.83	7.14
Spray (Direct/Layby)	8R-38	MFWD 170	12,700	200	8	0.066	1.18	0.99	0.39	0.35	2.93	0.47	2.23	5.64
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	17,300	200	8	0.044	0.78	0.66	0.36	0.23	2.04	0.43	1.48	3.97
Spray (Direct/Layby)	12R-30	MFWD 170	17,400	200	8	0.056	0.99	0.83	0.46	0.29	2.59	0.55	1.88	5.03
Spray (Direct/Layby)	12R-38	MFWD 170	17,300	200	8	0.044	0.78	0.66	0.36	0.23	2.04	0.43	1.48	3.97
Spray (Direct/Layby)	16R-20	2WD 50	10,000	200	8	0.062	1.10	0.27	0.29	0.04	1.71	0.35	0.24	2.31
Spray (Levee Leaper)	50'	MFWD 225	12,900	200	8	0.033	0.59	0.66	0.20	0.23	1.69	0.24	1.45	3.39
Spray (Pull Type)	60'	MFWD 225	36,400	200	8	0.028	0.49	0.55	0.48	0.19	1.72	0.57	1.21	3.51
Spray (Pull Type)	80'	MFWD 225	50,300	200	8	0.021	0.37	0.41	0.49	0.14	1.43	0.60	0.90	2.94
Spray (Pull Type)	90'	2WD 50	51,000	200	8	0.018	0.33	0.08	0.44	0.01	0.87	0.54	0.07	1.49
Spray (Pull Type)	120'	MFWD 225	76,600	200	8	0.014	0.24	0.27	0.50	0.09	1.12	0.60	0.60	2.34
Spray (Ropewick)	20'	MFWD 190	3,440	200	8	0.084	1.49	1.40	0.13	0.49	3.53	0.16	3.09	6.79
Spray (Spot)	27'	MFWD 170	5,440	200	8	0.062	1.10	0.93	0.15	0.33	2.53	0.19	2.09	4.82

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2017 (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 (Spot)	40'	MFWD 170	7,810	200	8	0.042	0.74	0.62	0.15	0.22	1.75	0.18	1.41	3.35
Spray (Spot)	50'	MFWD 170	6,940	200	8	0.033	0.59	0.50	0.11	0.17	1.39	0.13	1.13	2.65
Spray (Spot)	53'	MFWD 170	9,620	200	8	0.031	0.56	0.47	0.14	0.16	1.35	0.17	1.06	2.59
Spray (Spot)	60'	MFWD 225	18,600	200	8	0.028	0.49	0.55	0.24	0.19	1.49	0.29	1.21	2.99
Stalk Shredder	14'	MFWD 150	12,800	200	10	0.117	1.54	1.54	1.32	0.52	4.94	0.79	3.16	8.90
Stalk Shredder Flex	20'	MFWD 150	29,800	200	10	0.082	1.08	1.08	2.15	0.36	4.68	1.29	2.21	8.20
Stalk Shredder-Flail	12'	MFWD 150	15,500	200	10	0.137	1.80	1.80	1.86	0.61	6.09	1.12	3.69	10.91
Stalk Shredder-Flail	15'	MFWD 150	19,800	200	10	0.110	1.44	1.44	1.90	0.49	5.28	1.15	2.95	9.39
Stalk Shredder-Flail	18'	MFWD 150	26,900	200	10	0.091	1.20	1.20	2.15	0.40	4.97	1.30	2.46	8.74
Stalk Shredder-Flail	20'	MFWD 150	27,000	200	10	0.082	1.08	1.08	1.94	0.36	4.48	1.17	2.21	7.87
Stalk Shredder-Flail	25'	MFWD 150	39,600	200	10	0.066	0.86	0.86	2.28	0.29	4.31	1.38	1.77	7.47
Strip Till	8R-38	MFWD 225	38,100	150	10	0.061	0.80	1.21	1.01	0.41	3.46	1.65	2.64	7.75
Strip Till	12R-30	MFWD 225	61,100	150	10	0.061	0.80	1.21	1.63	0.41	4.07	2.65	2.64	9.36
Strip Till	12R-40	MFWD 225	58,500	150	10	0.046	0.60	0.90	1.17	0.31	3.00	1.90	1.98	6.89
Subsoiler	3 shank	MFWD 190	3,550	100	15	0.204	2.68	3.39	0.24	1.18	7.51	0.59	7.47	15.58
Subsoiler	4 shank	MFWD 225	9,340	100	15	0.153	2.01	3.02	0.47	1.04	6.56	1.18	6.59	14.34
Subsoiler	5 shank	MFWD 225	10,800	100	15	0.122	1.60	2.40	0.44	0.83	5.29	1.08	5.24	11.62
Subsoiler low-till	4 shank	MFWD 225	10,800	100	15	0.153	2.01	3.02	0.55	1.04	6.64	1.36	6.59	14.60
Subsoiler low-till	6 shank	MFWD 225	16,600	100	15	0.102	1.34	2.01	0.56	0.69	4.61	1.39	4.38	10.39
Subsoiler low-till	8 shank	MFWD 225	20,600	100	15	0.076	1.00	1.50	0.52	0.52	3.55	1.29	3.28	8.14

## 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, 2017

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Apron Maxx RTA	oz	0.93
Activator 90	pt	3.75	Apron Maxx RTA+Moly	pt	17.16
Agri-Dex	pt	2.25	Apron XL LS	oz	5.27
Crop Oil Conc. (Pet.)	pt	2.47	Artisan	oz	1.13
Crop Oil Conc. (Veg.)	pt	3.75	Bravo Ultrex	lb	9.00
Dyne-A-Pak	pt	4.63	Bravo Weather Stick	pt	6.62
Herbimax	pt	1.88	Captan 50 WP	lb	5.41
Induce	pt	3.63	Cotton Seed Trt.	acre	20.00
MSO	pt	3.75	CruiserMaxx	oz	4.60
Penetrator Plus	pt	3.50	Dithane F-45	qt	9.08
Prime Oil	pt	2.25	Dithane Rainshield	pt	4.15
SuperMax AMS	pt	2.67	Enable 2F	oz	2.17
Surfactant	pt	3.69	Headline EC	oz	2.86
CLEANING			Headline SC	oz	3.76
Cleaning Peanuts	ton	18.00	Manzate 75 DF	lb	5.54
CROP CONSULTANT			Moncut 70 DF	lb	38.35
Corn Consultant	acre	6.00	Propimax EC	pt	13.03
Cotton Consultant	acre	8.00	Prosaro	oz	2.70
Peanut Consultant	acre	9.25	Provost	oz	2.73
Rice Consultant	acre	8.00	Quadris	oz	2.08
Sorghum Consultant	acre	6.00	Quadris Top	oz	2.51
Soybeans Consultant	acre	6.50	Quilt	pt	18.82
Wheat Consultant	acre	5.50	Quilt XCEL	pt	23.07
CUSTOM FERTILIZE			Ridomil Gold	oz	7.23
App Fert by Air	cwt	7.00	Ridomil Gold PC GR	lb	5.96
App Fert by Air (Mi)	appl	7.00	Rovral 4F	pt	16.97
Custom Apply Fert	acre	7.00	Stratego	pt	22.58
CUSTOM LIME			Stratego YLD	oz	3.20
Lime (Spread)	ton	46.00	Tilt 3.6 EC	oz	0.85
CUSTOM PLANT			Tilt/ Bravo SE	oz	0.45
Custom Plant	acre	13.00	Uniform	oz	5.21
Custom Plant Air	cwt	7.00	GINNING		
CUSTOM SPRAY			Gin & Haul	lb	0.11
App by Air ( 3 gal)	appl	5.00	GROWTH REGULATORS		
App by Air ( 5 gal)	appl	6.50	Mepex	oz	0.13
App by Air (10 gal)	appl	8.50	Mepex Gin Out	oz	0.19
Custom Spray Ground	acre	7.50	Mepichlor 4.2%	oz	0.13
Custom Spray Self Pr	acre	6.25	Mepiquat	oz	0.13
Custom Spray Tractor	acre	7.75	Mepiquat Extra	oz	0.60
DRYING			Pentia	pt	7.21
Dry Corn	bu	0.19	Pix Plus	oz	0.40
Dry Grain Sorghum	cwt	0.25	Stance	oz	1.38
Dry Peanuts	ton	24.00	HARVEST AIDS		
Dry Rice	bu	0.40	Adios	oz	1.50
ERADICATION FEE			Aim 2EC	oz	5.60
Eradication	acre	1.00	CottonQuik	pt	6.06
FERTILIZERS			Def 6	pt	6.88
Agrotain Plus	lb	4.56	Def/Folex	pt	8.10
Agrotain Ultra	pt	10.23	Defol 5	gal	5.50
Amm Sulfate (21% N)	cwt	17.23	Ethephon 6E	pt	3.38
Boron Plus	pt	4.24	Finish 6	pt	10.25
DAP	cwt	24.82	First Pick	pt	3.72
Fert 10-34-0	cwt	28.58	Folex 6EC	pt	9.32
Fert 10-34-0	gal	3.33	Freefall SC	oz	1.69
Fert 11-37-0	cwt	32.70	Ginstar EC	pt	30.23
Fert 33-0-0-12S	cwt	17.50	Gramoxone SL	oz	0.27
Fert 41-0-0-4	cwt	16.85	Sharpen	oz	6.25
Lime	ton	36.00	Sodium Chlorate 5L	gal	5.50
NBPT	pt	10.23	SuperBoll	oz	0.25
Phosphorus (46% P2O5)	cwt	21.88	TDZ SC	oz	1.19
Potash (60% K2O)	cwt	16.97	Thidiazuron 4lb	oz	1.44
Sulfur Plus	pt	2.62	Tribufos 6lb	pt	9.32
UAN (32% N)	cwt	14.31	HAULING		
UAN (32%)	gal	1.58	Haul Corn	bu	0.23
UAN + Sulfur (28%)	cwt	14.48	Haul Peanuts	ton	14.50
UAN + Sulfur (28%)	gal	1.61	Haul Rice	bu	0.35
Urea, Solid (46% N)	cwt	16.78	Haul Sorghum	bu	0.25
Zinc Plus	pt	2.99	Haul Soybeans	bu	0.27
FUNGICIDES			Haul Wheat	bu	0.26
Aframe	oz	1.13	HERBICIDES		
Alfa Guard	lb	1.56	2,4-D Amine 4	pt	2.79
Allegiance Flowable	pt	51.61	AAtrex 4L	pt	2.58

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2017(continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
AAtrex NINE-0	lb	4.52	Newpath 2SL	oz	3.63
Accent Q	oz	24.75	Osprey	oz	3.74
Aim 2EC	oz	5.60	Outlook	pt	19.31
Assure II	oz	0.84	Paraquat	oz	0.32
Atrazine 4L	pt	1.95	Parazone 3SL	oz	0.32
Axial XL	oz	1.16	Peak Accu Pak	oz	18.18
Axiom 68DF	oz	2.13	Permit 75 DF	oz	20.59
Banvel	pt	15.02	Poast 1.53	pt	13.41
Basagran	pt	15.81	Poast Plus	pt	9.69
Beyond	oz	4.97	PowerFlex HL	lb	122.38
Bicep II Magnum	qt	11.69	Prefix	pt	6.34
Bicep Lite Magnum	pt	8.13	Prowl 3.3 EC	pt	6.86
Bolero 8EC	pt	7.65	Pursuit 2S	oz	3.97
Boundary 6.5 EC	pt	10.18	Python WDG	oz	15.58
Butyrac 175 (2,4-D)	pt	3.55	Quinstar	lb	56.17
Butyrac 200 (2,4-DB)	pt	4.77	Raptor	oz	4.96
Cadre	oz	4.21	RealmQ	oz	5.21
Callisto 4SC	oz	6.84	RebelEx	oz	2.36
Canopy 75%	oz	3.08	Reflex 2LC	pt	6.56
Canopy EX	oz	9.05	Regiment 80WP	oz	44.39
Caparol 4L	pt	4.44	Remedy Ultra	pt	10.76
Capreno	oz	6.97	Resolve SG	oz	8.26
Clarity	pt	11.18	Ricebeaux	pt	4.48
Classic	oz	16.95	Riceshot	pt	4.78
Clearpath	lb	59.53	Ricestar HT	pt	24.54
Clincher SF	oz	2.38	Roundup Power Max	oz	0.21
Cobra 2EC	oz	1.95	Roundup PowerMax	pt	3.28
Command 3ME	pt	19.34	Roundup WeatherMax	oz	0.27
Corvus	oz	6.72	Roundup WeatherMax	pt	4.29
Cotoran 4L	pt	6.31	Scepter 70 DG	oz	5.06
Cotton Pro	pt	3.98	Select Max	pt	14.99
Credit Extra	pt	2.50	Sequence	pt	5.42
Direx 4L	pt	3.29	Sharpen	oz	5.35
Diuron 4L	pt	3.36	Simazine 4L	pt	2.89
Diuron 80 DF	lb	5.81	Stalwart	pt	5.11
Diuron 80%	lb	6.20	Stam 80 EDF	lb	10.85
Dual II Magnum	pt	15.51	Stam M4	qt	8.10
Dual Magnum	pt	14.97	Staple LX	oz	8.46
Duet	pt	4.75	Steadfast	oz	12.40
Envoke	oz	103.36	Storm	pt	12.75
Expert	pt	4.95	Strada WG	oz	7.33
Facet L	pt	14.84	Strongarm	oz	62.62
Fierce	oz	6.98	Superwham	qt	9.78
Finesse	oz	15.88	Surpass EC	qt	29.04
First Rate	oz	41.21	Synchrony XP	oz	14.31
Flexstar	pt	8.81	Touchdown Total	qt	8.38
Fultime	pt	6.29	Treflan 4EC	pt	4.01
Fusilade DX	oz	1.13	Tricor DF	lb	17.81
Fusion	pt	29.86	Trifluralin 4EC	pt	4.01
Glyphosate 3lbs a.e	pt	2.29	Ultra Blazer	pt	11.65
Glyphosate 3lbs a.e	oz	0.14	Valor SX	oz	6.60
Glystar Plus	pt	2.64	Valor XLT	oz	5.77
Goal 2XL	pt	10.80	Verdict	oz	1.77
Gramoxone SL 2.0	oz	0.27	INOCULANT		
Grandstand R	qt	17.15	Optimize	oz	2.14
Grasp Xtra	oz	1.58	Optimize LIFT	oz	0.59
Halex GT	pt	7.60	Vault	oz	1.73
Halomax	oz	21.07	INSECTICIDES		
Harmony Extra SG TS	oz	14.02	Abamectin .15EC	oz	1.08
Harness XTRA	pt	9.45	Acephate 90%	lb	9.80
Impact	oz	23.68	Acephate 90SP	lb	8.69
Layby Pro	qt	14.04	Acramite-4SC	oz	1.99
Leadoff	oz	6.04	Admire Pro	oz	1.72
Lexar	pt	7.90	Asana .66 XL	oz	0.67
Liberty 280	oz	0.57	Aztec 2.1% G	lb	3.88
Linex 4L	pt	11.23	Baythroid XL	oz	2.48
Londax 60DF	oz	20.27	Belt	oz	8.77
Lorox 50DF	lb	26.36	Bidrin 8WM	oz	1.12
Metribuzin 75	lb	14.41	Bifenthrin	oz	1.03
MSMA 6.6	pt	3.66	Bifenture 2EC	pt	20.48
MSMA6 Plus	pt	3.63			(continued)

66 Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2017 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Brigade EC	pt	19.36	Steward	pt	39.51
Brigade WSB	lb	26.04	Transform WG	oz	7.90
Capture LFR	oz	2.97	Zeal Miticid I	oz	21.74
Carbaryl 4L	pt	6.32	IRRIGATION SUPPLIES		
Carbine 50WG	oz	6.66	Roll-Out Pipe	ft	0.25
Centric 40WG	oz	5.21	SEED/PLANTS		
Comite 1l	pt	9.46	Corn Seed BtRR	thous	3.89
Confirm 2F	oz	2.27	Corn Seed RR2	thous	3.17
Diamond .83EC	pt	21.84	Cotton Seed B2XF	thous	0.89
Diamond .83EC	oz	1.37	Cotton Seed GLB2	thous	2.81
Dimethoate 4E	pt	5.88	Cotton Seed LLB2	thous	1.43
Dimilin 2L	oz	2.12	Cotton Seed W3RF	thous	1.05
Dipel DF	lb	14.47	Cotton Seed WRF	thous	0.79
Dipel ES	pt	5.50	Cruiser Maxx Rice	lbseed	0.23
Endigo ZC	pt	31.11	Peanut Seed	lb	0.78
Force 3G	lb	7.41	Rice Clearfield	lb	1.05
Gaucho 600	oz	2.48	Rice Clrflld Hyb Trt	lb	5.30
Hero	pt	29.57	Rice Conv Hyb Trt	lb	5.57
Imidan 70 WSB	oz	0.70	Rice Seed CF(Levees)	lb	1.05
Incidental Pest Trt	acre	12.00	Rice Seed CFH(Levee)	lb	1.77
Incidental Pest Trt	acre	8.00	Rice Seed Conv.	lb	0.38
Intrepid 2F	oz	2.05	Rice Seed Cv(Levees)	lb	0.38
Intruder 70WSP	oz	10.99	Rice Seed CvH(Levee)	lb	1.65
Karate Z	oz	2.58	Sorghum Concept	lb	2.55
Lambda	oz	101.00	Sorghum Concept+ Po	lb	3.39
Lannate LV	pt	12.23	Soybean Seed LL	lb	1.16
Lannate SP	oz	2.42	Soybean Seed RR2	lb	1.26
Leverage 2.7	oz	1.95	Wheat Seed Private	lb	0.25
Lorsban 15G	lb	2.40	SOIL TEST		
Lorsban 4E	pt	6.66	Soil Test	acre	10.00
Macho	oz	0.71	SURVEY & MARK LEVEES		
Malathion 5E	pt	4.40	Survey & Mark Levees	acre	4.50
Malathion 8E	pt	9.30	TECHNOLOGY FEE		
Mustang Max	oz	1.44	B2 Cot Tech Fee	thous	0.76
Nuprid 4F	oz	1.20	B2 Cot Tech Fee	cap/ac	31.91
Oberon 4 SC	pt	59.84	B2XF Cot Tech Fee	thous	1.49
Orthene 97S	lb	10.90	B2XF Cot Tech Fee	cap/ac	62.69
Pounce 25WP	lb	16.80	LLB2 Cot Tech Fee	thous	0.76
Prevathon	oz	1.31	RF Cot Tech Fee	thous	1.04
Radiant	oz	6.61	RF Cot Tech Fee	cap/ac	43.66
Sevin 4F	pt	7.02	WRF Cot Tech Fee	thous	1.45
Sevin XLR Plus	qt	15.07	W3RF Cot Tech Fee	thous	1.45
Sivanto	oz	2.53			



Appendix Table 5. Estimated fuel prices  
and interest rates, Mississippi, 2017

ITEM NAME	UNIT	PRICE
		dollars
FUEL TYPES		
Diesel Fuel	gal	1.70
Gasoline	gal	1.90
LP Gas	gal	1.50
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, 2017

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	13.14
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, 2017

Crop	unit	Futures Contract Month	Futures Contract Price <sup>a</sup>	Basis	Forward Contract Price <sup>c</sup>	Loan	Budget Price <sup>e</sup>
Corn	bu	Dec '17	3.83	-0.21	3.62	2.10	3.62
Cotton Lint	lb	Dec '17	0.6899	-	0.6695	0.4946	0.67
Cottonseed	lb						0.099 <sup>f</sup>
Grain	bu				3.44	2.02	3.44
Peanuts	ton				400.00	355.00	400.00
Soybeans	bu	Nov '17	9.65	+0.09	9.74	5.19	9.74
Rice	bu	Nov '17	4.95	-0.58	4.37	2.97	4.37
Wheat	bu	Jul '17	4.43	-0.19	4.24	2.58	4.24

<sup>a</sup> Average of the daily closing futures contract prices during the first 5 trading days in October 2016 for the stated contract months.

<sup>b</sup> Basis is the cash price minus the futures contract price for the stated contract month. The reported basis is a daily average from 2009 to 2016 for corn, soybeans and wheat at Greenville, MS. Rice basis is a weekly average price for river point delivery. June harvest delivery for wheat. September harvest delivery for corn, rice and soybeans. October harvest delivery for cotton.

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

<sup>d</sup> Average Mississippi County CCC Loan Rate for 2016 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2016 Farm-stored Loan Rate for long grain rough rice. National 2017 Upland Cotton Marketing Assistance Loan Base Rate for cotton lint.

<sup>e</sup> Price used in MSU Extension Service Planning Budgets.

<sup>f</sup> Cottonseed price is the average marketing year price over the years 2006-2015.

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, 2017

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			11.23			0.22	11.45	45.07	
Well & Pump, 1/4 CP	each			2.89			0.06	2.95	8.54	
Engine, 1/4 CP, 65	each								9.93	
June Irr. 3app@.75"	ac-in		5.71	1.39			0.14	7.24	7.24	
July Irr. 4app@.75"	ac-in		7.62	1.86			0.15	9.63	9.63	
Aug Irr. 3app@.75"	ac-in		5.71	1.39			0.08	7.18	7.18	
TOTALS		0.00	19.04	18.76	1.84	0.00	0.69	40.33	63.54	103.87

Note: Cost of production estimates are based on 2016 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, 2017

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'		0.63	0.33	0.50			0.07	1.53	1.68	3.21
Set Up Engine											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Ditcher (1m/160a)			0.14	0.07	0.12			0.01	0.34	0.34	0.68
Roll-Out Pipe	ft	8.25						0.13	8.38		8.38
Lay Roll-out Pipe											
Pipe Spool 160ac	1/4m roll		0.19	0.10	0.39			0.01	0.69	0.70	1.39
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		0.28	0.14	0.59			0.01	1.02	1.05	2.07
Land Forming (\$450)	each									31.93	31.93
Well & Pump, Furrow	each			2.44				0.04	2.48	7.21	9.69
Main Line Pipe	each									4.01	4.01
Engine, RPF, Corn	each									8.38	8.38
1st June Irrigation	ac-in		4.50	0.98				0.09	5.57		5.57
2nd June Irrigation	ac-in		4.50	0.98				0.09	5.57		5.57
3rd June Irrigation	ac-in		4.50	0.98				0.09	5.57		5.57
1st July Irrigation	ac-in		4.50	0.98				0.07	5.55		5.55
TOTALS		8.25	19.24	7.00	4.56	0.00		0.64	39.69	55.30	94.99

Note: Cost of production estimates are based on 2016 input prices.

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