

**CORN, GRAIN
SORGHUM & WHEAT
2016
PLANNING BUDGETS**

**Mississippi State University
Department of Agricultural Economics
Budget Report 2015-03**

October 2015

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 2016 planning decisions. This would be a one-year short-run decision. Decisions beyond one year, or long-run decisions, should be based on "**Returns Above Specified Expenses.**"

Acknowledgments

A list of individuals who contributed to the development of the agricultural enterprise budgets follows this acknowledgment. The administrative committee structure and enterprise committees have shown a spirit of cooperation seldom found when so many work together. A team effort has led to many improvements in the budgets over the years.

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

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2016 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 2015. (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 2015 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 month of September. The basis is determined by subtracting the average daily cash price for the month of September 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, B2RR, 12-row 38", 210 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2016

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					
DAP	cwt	28.15	1.8000	50.67	_____
Potash (60% K2O)	cwt	21.27	1.5000	31.91	_____
Fert 10-34-0	cwt	32.50	0.5000	16.25	_____
Zinc Plus	pt	3.00	2.0000	6.00	_____
UAN + Sulfur (28%)	cwt	16.33	3.5710	58.31	_____
UAN (32% N)	cwt	15.95	4.3750	69.78	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	12.89	0.5000	6.45	_____
Select Max	pt	12.35	1.0000	12.35	_____
Atrazine 4L	pt	2.03	4.0000	8.12	_____
Halex GT	pt	7.22	3.6000	25.99	_____
INSECTICIDES					
Bifenthrin	oz	0.89	1.2800	1.14	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.26	33.0000	8.58	_____
SEED/PLANTS					
Corn Seed B2RR	thous	3.27	34.0000	111.18	_____
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	7.00	1.0000	7.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.4239	5.70	_____
Harvesters	hour	13.40	0.1009	1.35	_____
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	13.36	0.4017	5.37	_____
DIESEL FUEL					
Tractors	gal	2.00	4.6431	9.29	_____
Harvesters	gal	2.00	1.6890	3.38	_____
Roll-Out Pipe Irr.	gal	2.00	10.5901	21.20	_____
REPAIR & MAINTENANCE					
Implements	acre	7.56	1.0000	7.56	_____
Tractors	acre	2.81	1.0000	2.81	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Roll-Out Pipe Irr.	acre	6.36	1.0000	6.36	_____
INTEREST ON OP. CAP.	acre	14.80	1.0000	14.80	_____
TOTAL DIRECT EXPENSES				600.73	_____
FIXED EXPENSES					
Implements	acre	11.53	1.0000	11.53	_____
Tractors	acre	17.58	1.0000	17.58	_____
Harvesters	acre	13.78	1.0000	13.78	_____
Roll-Out Pipe Irr.	acre	52.50	1.0000	52.50	_____
TOTAL FIXED EXPENSES				95.39	_____
TOTAL SPECIFIED EXPENSES				696.12	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 1.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, B2RR, 12-row 38", 210 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.88	210.0000	814.80	_____

TOTAL INCOME				814.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	232.92	1.0000	232.92	_____
HERBICIDES	acre	57.39	1.0000	57.39	_____
INSECTICIDES	acre	1.14	1.0000	1.14	_____
IRRIGATION SUPPLIES	acre	8.58	1.0000	8.58	_____
SEED/PLANTS	acre	111.18	1.0000	111.18	_____
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	7.00	1.0000	7.00	_____
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	13.40	0.5249	7.05	_____
UNALLOCATED LABOR	hour	13.36	0.4017	5.37	_____
DIESEL FUEL	gal	2.00	16.9223	33.87	_____
REPAIR & MAINTENANCE	acre	20.22	1.0000	20.22	_____
INTEREST ON OP. CAP.	acre	14.80	1.0000	14.80	_____

TOTAL DIRECT EXPENSES				600.73	_____
RETURNS ABOVE DIRECT EXPENSES				214.07	_____
TOTAL FIXED EXPENSES				95.39	_____

TOTAL SPECIFIED EXPENSES				696.12	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				118.68	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 1.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, B2RR, 12-row 38", 210 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2016

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
DAP	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 B2RR	thous					34.0000				
Fert 10-34-0	cwt					0.5000				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	cwt					3.5710				
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% N)	cwt					4.3750				
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 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 1.D Estimated costs for field operations, per acre
 Corn, stale seedbed, B2RR, 12-row 38", 210 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2016

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						0.15	3.45		3.45
Lime (Spread)	ton	30.36						1.37	31.73		31.73
Spin Spreader	5 ton		0.97	0.59	1.45			0.14	3.15	2.47	5.62
DAP	cwt	50.67						2.28	52.95		52.95
Potash (60% K2O)	cwt	31.91						1.44	33.35		33.35
Bed/Disk w/roller	12R-30/40		1.45	1.18	1.59			0.19	4.41	4.73	9.14
App by Air (5 gal)	appl	6.50						0.19	6.69		6.69
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Clarity	pt	6.45						0.19	6.64		6.64
Select Max	pt	12.35						0.37	12.72		12.72
Plant & Pre-Folding	12R-38		1.24	1.96	1.84			0.13	5.17	5.42	10.59
Corn Seed B2RR	thous	111.18						2.92	114.10		114.10
Fert 10-34-0	cwt	16.25						0.43	16.68		16.68
Zinc Plus	pt	6.00						0.16	6.16		6.16
Custom Apply Fert	acre	7.00						0.16	7.16		7.16
UAN + Sulfur (28%)	cwt	58.31						1.31	59.62		59.62
Spray (Broadcast)	60'		0.65	0.44	0.85			0.04	1.98	1.56	3.54
Atrazine 4L	pt	8.12						0.18	8.30		8.30
Halex GT	pt	25.99						0.58	26.57		26.57
Corn Consultant	acre	7.00						0.13	7.13		7.13
Fert Appl (Liquid)	12R-38		1.20	0.97	1.54			0.07	3.78	3.00	6.78
UAN (32% N)	cwt	69.78						1.31	71.09		71.09
App by Air (3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.14						0.02	1.16		1.16
Header - Corn	8R-38		3.38	4.98	2.57			0.04	10.97	16.03	27.00
Grain Cart Corn	700 bu		0.58	0.43	0.64			0.01	1.66	1.55	3.21
Haul Corn	bu	48.30						0.18	48.48		48.48
Stalk Shredder Flex	20'		1.91	2.77	2.10			0.03	6.81	5.02	11.83
Roll-Out Pipe Irr.	acre	8.58	22.49	6.90	4.59			0.63	43.19	55.61	98.80
TOTALS		514.67	33.87	20.22	17.17	0.00	14.80	600.73	95.39	696.12	

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 1.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, B2RR, 12-row 38", 210 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2016

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	814.80
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	82.58	0.00	0.00	0.00	0.00	22.25	58.31	69.78	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	23.28	0.00	34.11	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	1.14	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	8.58	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	111.18	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	7.00	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	3.55	0.00	0.00	0.00	0.00	1.84	0.85	1.77	3.03	0.23	0.59	5.31
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	3.16	0.00	0.00	0.00	0.00	1.24	0.65	1.20	16.20	5.30	0.25	5.87
REPAIR & MAINTENANCE	2.09	0.00	0.00	0.00	0.00	1.96	0.44	0.97	5.50	0.98	0.10	8.18
INTEREST ON OP. CAP.	5.64	0.00	0.00	0.00	0.88	3.64	2.27	1.55	0.48	0.07	0.01	0.26
TOTAL DIRECT EXPENSES	130.68	0.00	0.00	0.00	30.66	142.11	103.63	84.41	33.79	6.58	0.95	67.92
NET INCOME	-130.68	0.00	0.00	0.00	-30.66	-142.11	-103.63	-84.41	-33.79	-6.58	-0.95	746.88
NET INCOME TO DATE	-130.68	-130.68	-130.68	-130.68	-161.34	-303.45	-407.08	-491.49	-525.28	-531.86	-532.81	214.07

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 1.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, B2RR, 12-row 38", 210 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2016

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
-----PRODUCT PRICE-----													
Corn	2.91	3.10	3.29	3.49	3.68	3.88	4.07	4.26	4.46	4.65	4.85		
PERCENT	YIELD	UNIT	-----dollars-----										
50	105.00	bu	-270 -366	-250 -345	-230 -325	-209 -305	-189 -284	-169 -264	-148 -244	-128 -223	-107 -203	-87 -183	-67 -162
60	126.00	bu	-214 -310	-190 -285	-165 -261	-141 -236	-116 -212	-92 -187	-68 -163	-43 -138	-19 -114	5 -90	29 -65
70	147.00	bu	-158 -253	-129 -225	-101 -196	-72 -168	-44 -139	-15 -111	12 -82	41 -54	69 -25	98 2	126 31
80	168.00	bu	-102 -197	-69 -164	-36 -132	-4 -99	28 -67	60 -34	93 -1	125 30	158 63	191 95	223 128
90	189.00	bu	-45 -141	-9 -104	27 -67	64 -31	100 5	137 42	174 78	210 115	247 152	284 188	320 225
100	210.00	bu	10 -85	51 -44	91 -3	132 37	173 77	214 118	254 159	295 200	336 240	377 281	417 322
110	231.00	bu	66 -28	111 16	156 60	201 105	245 150	290 195	335 240	380 284	425 329	469 374	514 419
120	252.00	bu	122 27	171 76	220 125	269 174	318 223	367 271	416 320	465 369	513 418	562 467	611 516
130	273.00	bu	179 83	232 136	285 189	338 242	391 295	443 348	496 401	549 454	602 507	655 560	708 613
140	294.00	bu	235 140	292 197	349 254	406 311	463 368	520 425	577 482	634 539	691 596	748 653	805 710
150	315.00	bu	291 196	352 257	413 318	475 379	536 440	597 501	658 562	719 624	780 685	841 746	902 807

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 2015 input prices

Table 2.A Estimated costs per acre
 Corn, stale seedbed, B2RR, non-irrigated, 12row 38"
 150 bu yield goal, Delta Area, Mississippi, 2016

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					
DAP	cwt	28.15	1.0870	30.60	_____
Potash (60% K2O)	cwt	21.27	0.8300	17.65	_____
Fert 10-34-0	cwt	32.50	0.5000	16.25	_____
Zinc Plus	pt	3.00	2.0000	6.00	_____
UAN + Sulfur (28%)	cwt	16.33	2.1430	35.00	_____
UAN (32% N)	cwt	15.95	3.2815	52.34	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	12.89	0.5000	6.45	_____
Select Max	pt	12.35	1.0000	12.35	_____
Atrazine 4L	pt	2.03	4.0000	8.12	_____
Halex GT	pt	7.22	3.6000	25.99	_____
INSECTICIDES					
Bifenthrin	oz	0.89	1.2800	1.14	_____
SEED/PLANTS					
Corn Seed B2RR	thous	3.27	28.0000	91.56	_____
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	7.00	1.0000	7.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.3454	4.64	_____
Harvesters	hour	13.40	0.1009	1.35	_____
HAND LABOR					
Implements	hour	9.06	0.1354	1.22	_____
UNALLOCATED LABOR	hour	13.36	0.4017	5.37	_____
DIESEL FUEL					
Tractors	gal	2.00	4.0005	8.00	_____
Harvesters	gal	2.00	1.3770	2.75	_____
REPAIR & MAINTENANCE					
Implements	acre	7.36	1.0000	7.36	_____
Tractors	acre	2.47	1.0000	2.47	_____
Harvesters	acre	3.31	1.0000	3.31	_____
INTEREST ON OP. CAP.	acre	11.20	1.0000	11.20	_____
TOTAL DIRECT EXPENSES				445.26	_____
FIXED EXPENSES					
Implements	acre	10.50	1.0000	10.50	_____
Tractors	acre	15.50	1.0000	15.50	_____
Harvesters	acre	13.07	1.0000	13.07	_____
TOTAL FIXED EXPENSES				39.07	_____
TOTAL SPECIFIED EXPENSES				484.33	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 2.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, B2RR, non-irrigated, 12row 38"
 150 bu yield goal, Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.88	150.0000	582.00	_____

TOTAL INCOME				582.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	157.84	1.0000	157.84	_____
HERBICIDES	acre	57.39	1.0000	57.39	_____
INSECTICIDES	acre	1.14	1.0000	1.14	_____
SEED/PLANTS	acre	91.56	1.0000	91.56	_____
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	7.00	1.0000	7.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1354	1.22	_____
OPERATOR LABOR	hour	13.40	0.4463	5.99	_____
UNALLOCATED LABOR	hour	13.36	0.4017	5.37	_____
DIESEL FUEL	gal	2.00	5.3776	10.75	_____
REPAIR & MAINTENANCE	acre	13.14	1.0000	13.14	_____
INTEREST ON OP. CAP.	acre	11.20	1.0000	11.20	_____

TOTAL DIRECT EXPENSES				445.26	_____
RETURNS ABOVE DIRECT EXPENSES				136.74	_____
TOTAL FIXED EXPENSES				39.07	_____

TOTAL SPECIFIED EXPENSES				484.33	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				97.67	_____

Note: Cost of production estimates are based on 2015 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.
Lime cost prorated for application every 3rd year.

Table 2.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, B2RR, non-irrigated, 12row 38"
 150 bu yield goal, Delta Area, Mississippi, 2016

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
DAP	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 B2RR	thous					28.0000				
Fert 10-34-0	cwt					0.5000				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	cwt					2.1430				
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% N)	cwt					3.2815				
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 2015 input prices..

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 2.D Estimated costs for field operations, per acre
 Corn, stale seedbed, B2RR, non-irrigated, 12row 38"
 150 bu yield goal, Delta Area, Mississippi, 2016

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						0.15	3.45		3.45
Lime (Spread)	ton	30.36						1.37	31.73		31.73
Spin Spreader	5 ton		0.97	0.59	1.45			0.14	3.15	2.47	5.62
DAP	cwt	30.60						1.38	31.98		31.98
Potash (60% K2O)	cwt	17.65						0.79	18.44		18.44
Bed/Disk w/roller	12R-30/40		1.45	1.18	1.59			0.19	4.41	4.73	9.14
App by Air (5 gal)	appl	6.50						0.19	6.69		6.69
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Clarity	pt	6.45						0.19	6.64		6.64
Select Max	pt	12.35						0.37	12.72		12.72
Plant & Pre-Folding	12R-38		1.24	1.96	1.84			0.13	5.17	5.42	10.59
Corn Seed B2RR	thous	91.56						2.40	93.96		93.96
Fert 10-34-0	cwt	16.25						0.43	16.68		16.68
Zinc Plus	pt	6.00						0.16	6.16		6.16
Custom Apply Fert	acre	7.00						0.16	7.16		7.16
UAN + Sulfur (28%)	cwt	35.00						0.79	35.79		35.79
Spray (Broadcast)	60'		0.65	0.44	0.85			0.04	1.98	1.56	3.54
Atrazine 4L	pt	8.12						0.18	8.30		8.30
Halex GT	pt	25.99						0.58	26.57		26.57
Corn Consultant	acre	7.00						0.13	7.13		7.13
Fert Appl (Liquid)	12R-38		1.20	0.97	1.54			0.07	3.78	3.00	6.78
UAN (32% N)	cwt	52.34						0.98	53.32		53.32
App by Air (3 gal)	appl	1.00						0.02	1.02		1.02
Bifenthrin	oz	1.14						0.02	1.16		1.16
Header - Corn	8R-38		2.75	4.80	2.57			0.04	10.16	15.32	25.48
Grain Cart Corn	700 bu		0.58	0.43	0.64			0.01	1.66	1.55	3.21
Haul Corn	bu	34.50						0.13	34.63		34.63
Stalk Shredder Flex	20'		1.91	2.77	2.10			0.03	6.81	5.02	11.83
TOTALS		397.59	10.75	13.14	12.58	0.00	11.20	445.26	39.07	484.33	

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 2.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, B2RR, non-irrigated, 12row 38"
 150 bu yield goal, Delta Area, Mississippi, 2016

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	582.00
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	48.25	0.00	0.00	0.00	0.00	22.25	35.00	52.34	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	23.28	0.00	34.11	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	1.14	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	91.56	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	7.00	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	3.04	0.00	0.00	0.00	0.00	1.84	0.85	1.54	0.00	0.00	0.00	5.31
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	2.42	0.00	0.00	0.00	0.00	1.24	0.65	1.20	0.00	0.00	0.00	5.24
REPAIR & MAINTENANCE	1.77	0.00	0.00	0.00	0.00	1.96	0.44	0.97	0.00	0.00	0.00	8.00
INTEREST ON OP. CAP.	4.02	0.00	0.00	0.00	0.88	3.12	1.75	1.22	0.00	0.00	0.00	0.21
TOTAL DIRECT EXPENSES	93.16	0.00	0.00	0.00	30.66	121.97	79.80	66.41	0.00	0.00	0.00	53.26
NET INCOME	-93.16	0.00	0.00	0.00	-30.66	-121.97	-79.80	-66.41	0.00	0.00	0.00	528.74
NET INCOME TO DATE	-93.16	-93.16	-93.16	-93.16	-123.82	-245.79	-325.59	-392.00	-392.00	-392.00	-392.00	136.74

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 2.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, B2RR, non-irrigated, 12row 38"
 150 bu yield goal, Delta Area, Mississippi, 2016

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Corn			2.91	3.10	3.29	3.49	3.68	3.88	4.07	4.26	4.46	4.65	4.85
			-----dollars-----										
PERCENT	YIELD	UNIT											
50	75.00	bu	-209	-195	-180	-166	-151	-136	-122	-107	-93	-78	-64
			-248	-234	-219	-205	-190	-176	-161	-146	-132	-117	-103
60	90.00	bu	-169	-152	-134	-117	-99	-82	-64	-47	-29	-12	5
			-208	-191	-173	-156	-138	-121	-103	-86	-68	-51	-33
70	105.00	bu	-129	-108	-88	-68	-47	-27	-7	13	33	54	74
			-168	-148	-127	-107	-86	-66	-46	-25	-5	14	35
80	120.00	bu	-89	-65	-42	-19	3	27	50	73	97	120	143
			-128	-104	-81	-58	-35	-11	11	34	58	81	104
90	135.00	bu	-48	-22	3	29	55	82	108	134	160	186	212
			-88	-61	-35	-9	16	42	69	95	121	147	173
100	150.00	bu	-8	20	49	78	107	136	165	194	224	253	282
			-47	-18	10	39	68	97	126	155	184	214	243
110	165.00	bu	31	63	95	127	159	191	223	255	287	319	351
			-7	24	56	88	120	152	184	216	248	280	312
120	180.00	bu	71	106	141	176	211	246	281	316	350	385	420
			32	67	102	137	172	207	242	276	311	346	381
130	195.00	bu	111	149	187	225	263	300	338	376	414	452	490
			72	110	148	186	224	261	299	337	375	413	451
140	210.00	bu	151	192	233	274	314	355	396	437	477	518	559
			112	153	194	235	275	316	357	398	438	479	520
150	225.00	bu	192	235	279	323	366	410	454	497	541	585	628
			153	196	240	284	327	371	415	458	502	545	589

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2015 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, 2016

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					
DAP	cwt	28.15	1.8000	50.67	_____
Potash (60% K2O)	cwt	21.27	1.5000	31.91	_____
UAN + Sulfur (28%)	cwt	16.33	3.5710	58.31	_____
UAN (32% N)	cwt	15.95	4.3750	69.78	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	12.89	0.5000	6.45	_____
Select Max	pt	12.35	1.0000	12.35	_____
Atrazine 4L	pt	2.03	4.0000	8.12	_____
Halex GT	pt	7.22	3.6000	25.99	_____
INSECTICIDES					
Intrepid 2F	oz	2.01	4.0000	8.04	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.26	33.0000	8.58	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.02	34.0000	102.68	_____
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	7.00	1.0000	7.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.6927	9.30	_____
Harvesters	hour	13.40	0.1009	1.35	_____
Self-Propelled	hour	13.40	0.0176	0.24	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3250	2.96	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.1175	1.06	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR	hour	13.37	0.6595	8.82	_____
DIESEL FUEL					
Tractors	gal	2.00	7.7557	15.53	_____
Harvesters	gal	2.00	1.3770	2.75	_____
Self-Propelled	gal	2.00	0.1586	0.32	_____
Roll-Out Pipe Irr.	gal	2.00	10.5901	21.20	_____
REPAIR & MAINTENANCE					
Implements	acre	9.24	1.0000	9.24	_____
Tractors	acre	4.73	1.0000	4.73	_____
Harvesters	acre	3.31	1.0000	3.31	_____
Self-Propelled	acre	0.16	1.0000	0.16	_____
Roll-Out Pipe Irr.	acre	6.36	1.0000	6.36	_____
INTEREST ON OP. CAP.	acre	14.80	1.0000	14.80	_____
TOTAL DIRECT EXPENSES				597.60	_____
FIXED EXPENSES					
Implements	acre	15.95	1.0000	15.95	_____
Tractors	acre	29.63	1.0000	29.63	_____
Harvesters	acre	13.07	1.0000	13.07	_____
Self-Propelled	acre	1.08	1.0000	1.08	_____
Roll-Out Pipe Irr.	acre	52.50	1.0000	52.50	_____
TOTAL FIXED EXPENSES				112.23	_____
TOTAL SPECIFIED EXPENSES				709.83	_____

Note: Cost of production estimates are based on 2015 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.
Lime cost prorated for application every 3rd year.

Table 3.B Summary of estimated costs and returns per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 210 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.88	210.0000	814.80	_____

TOTAL INCOME				814.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	11.50	1.0000	11.50	_____
FERTILIZERS	acre	210.67	1.0000	210.67	_____
HERBICIDES	acre	57.39	1.0000	57.39	_____
INSECTICIDES	acre	8.04	1.0000	8.04	_____
IRRIGATION SUPPLIES	acre	8.58	1.0000	8.58	_____
SEED/PLANTS	acre	102.68	1.0000	102.68	_____
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	7.00	1.0000	7.00	_____
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	13.40	0.8113	10.89	_____
UNALLOCATED LABOR	hour	13.37	0.6595	8.82	_____
DIESEL FUEL	gal	2.00	19.8817	39.80	_____
REPAIR & MAINTENANCE	acre	23.80	1.0000	23.80	_____
INTEREST ON OP. CAP.	acre	14.80	1.0000	14.80	_____

TOTAL DIRECT EXPENSES				597.60	_____
RETURNS ABOVE DIRECT EXPENSES				217.20	_____
TOTAL FIXED EXPENSES				112.23	_____

TOTAL SPECIFIED EXPENSES				709.83	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				104.97	_____

Note: Cost of production estimates are based on 2015 input prices.
Fertilization decisions should be based on soil tests.
Soil test cost is prorated for a test every 3rd year.
Lime cost prorated for application every 3rd year.

Table 3.C Estimated resource use for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 210 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2016

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
DAP	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%)	cwt					3.5710				
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% N)	cwt					4.3750				
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 2015 input prices..

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 3.D Estimated costs for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 210 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Subsoiler	3 shank		2.37	0.85	2.60			0.26	6.08	4.88	10.96
Disk Harrow	24'		1.90	1.59	2.09			0.25	5.83	5.81	11.64
Soil Test	acre	3.30						0.15	3.45		3.45
Lime (Spread)	ton	30.36						1.37	31.73		31.73
Spin Spreader	5 ton		0.97	0.59	1.45			0.14	3.15	2.47	5.62
DAP	cwt	50.67						2.28	52.95		52.95
Potash (60% K2O)	cwt	31.91						1.44	33.35		33.35
Bed/Disk w/roller	12R-30/40		1.45	1.18	1.59			0.19	4.41	4.73	9.14
App by Air (5 gal)	appl	6.50						0.19	6.69		6.69
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Clarity	pt	6.45						0.19	6.64		6.64
Select Max	pt	12.35						0.37	12.72		12.72
Row Cond./Roll-Fold.	30'		1.45	0.96	1.59			0.11	4.11	4.14	8.25
Plant - Folding	12R-38		1.15	1.67	1.71			0.12	4.65	4.76	9.41
Corn Seed RR2	thous	102.68						2.70	105.38		105.38
Custom Apply Fert	acre	7.00						0.16	7.16		7.16
UAN + Sulfur (28%)	cwt	58.31						1.31	59.62		59.62
Sprayer 600-750gal	60' 175hp		0.32	0.16	0.53			0.02	1.03	1.08	2.11
Atrazine 4L	pt	8.12						0.18	8.30		8.30
Halex GT	pt	25.99						0.58	26.57		26.57
Corn Consultant	acre	7.00						0.13	7.13		7.13
Fert Appl (Liquid)	12R-38		1.20	0.97	1.54			0.07	3.78	3.00	6.78
UAN (32% N)	cwt	69.78						1.31	71.09		71.09
Cultivate	12R-38		1.26	0.93	1.38			0.07	3.64	3.86	7.50
App by Air (3 gal)	appl	5.00						0.07	5.07		5.07
Intrepid 2F	oz	8.04						0.12	8.16		8.16
Header - Corn	8R-38		2.75	4.80	2.57			0.04	10.16	15.32	25.48
Grain Cart Corn	700 bu		0.58	0.43	0.64			0.01	1.66	1.55	3.21
Haul Corn	bu	48.30						0.18	48.48		48.48
Stalk Shredder Flex	20'		1.91	2.77	2.10			0.03	6.81	5.02	11.83
Roll-Out Pipe Irr.	acre	8.58	22.49	6.90	4.59			0.63	43.19	55.61	98.80
TOTALS		494.82	39.80	23.80	24.38	0.00	14.80	597.60	112.23	709.83	

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 3.E Estimated monthly income and expense flows per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 210 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2016

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	814.80
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	82.58	0.00	0.00	0.00	0.00	0.00	58.31	69.78	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	23.28	0.00	34.11	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	8.04	0.00	0.00	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.58	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	102.68	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	7.00	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	8.24	0.00	0.00	0.00	0.00	3.30	0.53	3.15	3.03	0.23	0.59	5.31
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	7.43	0.00	0.00	0.00	0.00	2.60	0.32	2.46	16.20	5.30	0.25	5.24
REPAIR & MAINTENANCE	4.53	0.00	0.00	0.00	0.00	2.63	0.16	1.90	5.50	0.98	0.10	8.00
INTEREST ON OP. CAP.	6.15	0.00	0.00	0.00	0.88	2.93	2.25	1.58	0.67	0.07	0.01	0.26
TOTAL DIRECT EXPENSES	142.59	0.00	0.00	0.00	30.66	114.14	102.68	85.87	47.02	6.58	0.95	67.11
NET INCOME	-142.59	0.00	0.00	0.00	-30.66	-114.14	-102.68	-85.87	-47.02	-6.58	-0.95	747.69
NET INCOME TO DATE	-142.59	-142.59	-142.59	-142.59	-173.25	-287.39	-390.07	-475.94	-522.96	-529.54	-530.49	217.20

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 3.F Estimated returns for various price/yield combinations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 210 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2016

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
	PRODUCT PRICE												
Corn	2.91	3.10	3.29	3.49	3.68	3.88	4.07	4.26	4.46	4.65	4.85		
PERCENT	YIELD	UNIT	dollars										
50	105.00	bu	-267 -380	-247 -359	-227 -339	-206 -318	-186 -298	-165 -278	-145 -257	-125 -237	-104 -217	-84 -196	-64 -176
60	126.00	bu	-211 -323	-187 -299	-162 -274	-138 -250	-113 -226	-89 -201	-64 -177	-40 -152	-15 -128	8 -103	32 -79
70	147.00	bu	-155 -267	-126 -238	-98 -210	-69 -181	-41 -153	-12 -124	15 -96	44 -67	72 -39	101 -10	129 17
80	168.00	bu	-99 -211	-66 -178	-33 -146	-1 -113	31 -80	63 -48	96 -15	129 16	161 49	194 82	226 114
90	189.00	bu	-42 -154	-6 -118	30 -81	67 -44	103 -8	140 28	177 65	213 101	250 138	287 175	323 211
100	210.00	bu	13 -98	54 -57	94 -17	135 23	176 64	217 104	257 145	298 186	339 227	380 267	420 308
110	231.00	bu	69 -42	114 2	159 47	204 91	249 136	293 181	338 226	383 271	428 316	473 360	517 405
120	252.00	bu	126 13	174 62	223 111	272 160	321 209	370 258	419 307	468 356	517 404	566 453	614 502
130	273.00	bu	182 70	235 123	288 175	341 228	394 281	447 334	500 387	553 440	605 493	658 546	711 599
140	294.00	bu	238 126	295 183	352 240	409 297	466 354	523 411	580 468	637 525	694 582	751 639	808 696
150	315.00	bu	294 182	355 243	417 304	478 365	539 427	600 488	661 549	722 610	783 671	844 732	905 793

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2015 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, 2016

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					
DAP	cwt	28.15	1.0870	30.60	_____
Potash (60% K2O)	cwt	21.27	0.8300	17.65	_____
UAN + Sulfur (28%)	cwt	16.33	2.1430	35.00	_____
UAN (32% N)	cwt	15.95	3.2815	52.34	_____
HERBICIDES					
Glyphosate 3lbs a.e	pt	2.26	2.0000	4.52	_____
Clarity	pt	12.89	0.5000	6.45	_____
Select Max	pt	12.35	1.0000	12.35	_____
Atrazine 4L	pt	2.03	4.0000	8.12	_____
Halex GT	pt	7.22	3.6000	25.99	_____
INSECTICIDES					
Intrepid 2F	oz	2.01	4.0000	8.04	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.02	28.0000	84.56	_____
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	7.00	1.0000	7.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.5687	7.62	_____
Harvesters	hour	13.40	0.1009	1.35	_____
Self-Propelled	hour	13.40	0.0176	0.24	_____
HAND LABOR					
Implements	hour	9.06	0.1175	1.06	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.38	0.6186	8.28	_____
DIESEL FUEL					
Tractors	gal	2.00	6.5869	13.18	_____
Harvesters	gal	2.00	1.3770	2.75	_____
Self-Propelled	gal	2.00	0.1586	0.32	_____
REPAIR & MAINTENANCE					
Implements	acre	7.82	1.0000	7.82	_____
Tractors	acre	4.06	1.0000	4.06	_____
Harvesters	acre	3.31	1.0000	3.31	_____
Self-Propelled	acre	0.16	1.0000	0.16	_____
INTEREST ON OP. CAP.	acre	11.17	1.0000	11.17	_____
TOTAL DIRECT EXPENSES				440.68	_____
FIXED EXPENSES					
Implements	acre	12.04	1.0000	12.04	_____
Tractors	acre	25.52	1.0000	25.52	_____
Harvesters	acre	13.07	1.0000	13.07	_____
Self-Propelled	acre	1.08	1.0000	1.08	_____
TOTAL FIXED EXPENSES				51.71	_____
TOTAL SPECIFIED EXPENSES				492.39	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 4.B Summary of estimated costs and returns per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.88	150.0000	582.00	_____

TOTAL INCOME				582.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	11.50	1.0000	11.50	_____
FERTILIZERS	acre	135.59	1.0000	135.59	_____
HERBICIDES	acre	57.43	1.0000	57.43	_____
INSECTICIDES	acre	8.04	1.0000	8.04	_____
SEED/PLANTS	acre	84.56	1.0000	84.56	_____
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	7.00	1.0000	7.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1263	1.14	_____
OPERATOR LABOR	hour	13.40	0.6873	9.21	_____
UNALLOCATED LABOR	hour	13.38	0.6186	8.28	_____
DIESEL FUEL	gal	2.00	8.1226	16.25	_____
REPAIR & MAINTENANCE	acre	15.35	1.0000	15.35	_____
INTEREST ON OP. CAP.	acre	11.17	1.0000	11.17	_____

TOTAL DIRECT EXPENSES				440.68	_____
RETURNS ABOVE DIRECT EXPENSES				141.32	_____
TOTAL FIXED EXPENSES				51.71	_____

TOTAL SPECIFIED EXPENSES				492.39	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				89.61	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 4.C Estimated resource use for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2016

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
DAP	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	pt					2.0000				
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%)	cwt					2.1430				
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% N)	cwt					3.2815				
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	0.66	0.81	0.61

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 4.D Estimated costs for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Subsoiler	3 shank		2.37	0.85	2.60			0.26	6.08	4.88	10.96
Disk Harrow	24'		1.90	1.59	2.09			0.25	5.83	5.81	11.64
Soil Test	acre	3.30						0.15	3.45		3.45
Lime (Spread)	ton	30.36						1.37	31.73		31.73
Spin Spreader	5 ton		0.97	0.59	1.45			0.14	3.15	2.47	5.62
DAP	cwt	30.60						1.38	31.98		31.98
Potash (60% K2O)	cwt	17.65						0.79	18.44		18.44
Bed/Disk (Hipper)Rd	8R-38		1.72	0.88	1.88			0.20	4.68	4.25	8.93
App by Air (5 gal)	appl	6.50						0.19	6.69		6.69
Glyphosate 3lbs a.e	pt	4.52						0.14	4.66		4.66
Clarity	pt	6.45						0.19	6.64		6.64
Select Max	pt	12.35						0.37	12.72		12.72
Row Cond Rigid	26'		1.38	0.64	1.52			0.09	3.63	3.57	7.20
Plant - Folding	12R-38		1.15	1.67	1.71			0.12	4.65	4.76	9.41
Corn Seed RR2	thous	84.56						2.22	86.78		86.78
Custom Apply Fert	acre	7.00						0.16	7.16		7.16
UAN + Sulfur (28%)	cwt	35.00						0.79	35.79		35.79
Sprayer 600-750gal	60' 175hp		0.32	0.16	0.53			0.02	1.03	1.08	2.11
Atrazine 4L	pt	8.12						0.18	8.30		8.30
Halex GT	pt	25.99						0.58	26.57		26.57
Corn Consultant	acre	7.00						0.13	7.13		7.13
Fert Appl (Liquid)	12R-38		1.20	0.97	1.54			0.07	3.78	3.00	6.78
UAN (32% N)	cwt	52.34						0.98	53.32		53.32
App by Air (3 gal)	appl	5.00						0.07	5.07		5.07
Intrepid 2F	oz	8.04						0.12	8.16		8.16
Header - Corn	8R-38		2.75	4.80	2.57			0.04	10.16	15.32	25.48
Grain Cart Corn	700 bu		0.58	0.43	0.64			0.01	1.66	1.55	3.21
Haul Corn	bu	34.50						0.13	34.63		34.63
Stalk Shredder Flex	20'		1.91	2.77	2.10			0.03	6.81	5.02	11.83
TOTALS		379.28	16.25	15.35	18.63	0.00	11.17	440.68	51.71	492.39	

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 4.E Estimated monthly income and expense flows per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2016

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	582.00
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	48.25	0.00	0.00	0.00	0.00	0.00	35.00	52.34	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	23.32	0.00	34.11	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	8.04	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	84.56	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	7.00	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	8.02	0.00	0.00	0.00	0.00	3.23	0.53	1.54	0.00	0.00	0.00	5.31
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	6.96	0.00	0.00	0.00	0.00	2.53	0.32	1.20	0.00	0.00	0.00	5.24
REPAIR & MAINTENANCE	3.91	0.00	0.00	0.00	0.00	2.31	0.16	0.97	0.00	0.00	0.00	8.00
INTEREST ON OP. CAP.	4.54	0.00	0.00	0.00	0.89	2.43	1.73	1.18	0.19	0.00	0.00	0.21
TOTAL DIRECT EXPENSES	105.34	0.00	0.00	0.00	30.71	95.06	78.85	64.23	13.23	0.00	0.00	53.26
NET INCOME	-105.34	0.00	0.00	0.00	-30.71	-95.06	-78.85	-64.23	-13.23	0.00	0.00	528.74
NET INCOME TO DATE	-105.34	-105.34	-105.34	-105.34	-136.05	-231.11	-309.96	-374.19	-387.42	-387.42	-387.42	141.32

Note: Cost of production estimates are based on 2015 input prices

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 150 bu yield goal, non-irrigated, Delta Area, Mississippi, 2016

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Corn			2.91	3.10	3.29	3.49	3.68	3.88	4.07	4.26	4.46	4.65	4.85
PERCENT	YIELD	UNIT	-----dollars-----										
50	75.00	bu	-205 -256	-190 -242	-176 -227	-161 -213	-146 -198	-132 -184	-117 -169	-103 -154	-88 -140	-74 -125	-59 -111
60	90.00	bu	-164 -216	-147 -199	-130 -181	-112 -164	-95 -146	-77 -129	-60 -111	-42 -94	-25 -76	-7 -59	9 -42
70	105.00	bu	-124 -176	-104 -156	-84 -135	-63 -115	-43 -94	-22 -74	-2 -54	17 -33	38 -13	58 6	78 27
80	120.00	bu	-84 -136	-61 -112	-37 -89	-14 -66	8 -43	31 -19	55 3	78 26	101 49	124 73	148 96
90	135.00	bu	-44 -96	-18 -69	8 -43	34 -17	60 8	86 34	112 61	138 87	165 113	191 139	217 165
100	150.00	bu	-4 -55	24 -26	54 2	83 31	112 60	141 89	170 118	199 147	228 176	257 206	286 235
110	165.00	bu	36 -15	68 16	100 48	132 80	164 112	196 144	228 176	260 208	292 240	324 272	356 304
120	180.00	bu	76 24	111 59	146 94	180 129	215 164	250 199	285 234	320 268	355 303	390 338	425 373
130	195.00	bu	116 64	154 102	192 140	229 178	267 215	305 253	343 291	381 329	419 367	456 405	494 442
140	210.00	bu	156 104	197 145	238 186	278 227	319 267	360 308	401 349	441 390	482 430	523 471	563 512
150	225.00	bu	196 145	240 188	284 232	327 275	371 319	415 363	458 406	502 450	545 494	589 537	633 581

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 2015 input prices.

Table 5.A Estimated costs per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 135 bu yield goal, All Areas, Mississippi, 2016

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					
DAP	cwt	28.15	1.0870	30.60	_____
Potash (60% K2O)	cwt	21.27	0.8300	17.65	_____
UAN + Sulfur (28%)	cwt	16.33	5.3930	88.07	_____
HERBICIDES					
Glyphosate 3lbs a.e	pt	2.26	2.0000	4.52	_____
Clarity	pt	12.89	0.5000	6.45	_____
Select Max	pt	12.35	1.0000	12.35	_____
Atrazine 4L	pt	2.03	4.0000	8.12	_____
Halex GT	pt	7.22	3.6000	25.99	_____
INSECTICIDES					
Intrepid 2F	oz	2.01	4.0000	8.04	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.02	28.0000	84.56	_____
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	7.00	1.0000	7.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.4889	6.55	_____
Harvesters	hour	13.40	0.1277	1.71	_____
Self-Propelled	hour	13.40	0.0176	0.24	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.39	0.5709	7.65	_____
DIESEL FUEL					
Tractors	gal	2.00	4.2788	8.56	_____
Harvesters	gal	2.00	1.7419	3.48	_____
Self-Propelled	gal	2.00	0.1586	0.32	_____
REPAIR & MAINTENANCE					
Implements	acre	8.52	1.0000	8.52	_____
Tractors	acre	2.55	1.0000	2.55	_____
Harvesters	acre	4.19	1.0000	4.19	_____
Self-Propelled	acre	0.16	1.0000	0.16	_____
INTEREST ON OP. CAP.	acre	10.85	1.0000	10.85	_____
TOTAL DIRECT EXPENSES				432.73	_____
FIXED EXPENSES					
Implements	acre	12.67	1.0000	12.67	_____
Tractors	acre	15.96	1.0000	15.96	_____
Harvesters	acre	16.53	1.0000	16.53	_____
Self-Propelled	acre	1.08	1.0000	1.08	_____
TOTAL FIXED EXPENSES				46.24	_____
TOTAL SPECIFIED EXPENSES				478.97	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 5.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 135 bu yield goal, All Areas, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.88	135.0000	523.80	_____

TOTAL INCOME				523.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	11.50	1.0000	11.50	_____
FERTILIZERS	acre	136.32	1.0000	136.32	_____
HERBICIDES	acre	57.43	1.0000	57.43	_____
INSECTICIDES	acre	8.04	1.0000	8.04	_____
SEED/PLANTS	acre	84.56	1.0000	84.56	_____
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	7.00	1.0000	7.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1530	1.39	_____
OPERATOR LABOR	hour	13.40	0.6343	8.50	_____
UNALLOCATED LABOR	hour	13.39	0.5709	7.65	_____
DIESEL FUEL	gal	2.00	6.1795	12.36	_____
REPAIR & MAINTENANCE	acre	15.42	1.0000	15.42	_____
INTEREST ON OP. CAP.	acre	10.85	1.0000	10.85	_____

TOTAL DIRECT EXPENSES				432.73	_____
RETURNS ABOVE DIRECT EXPENSES				91.07	_____
TOTAL FIXED EXPENSES				46.24	_____

TOTAL SPECIFIED EXPENSES				478.97	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				44.83	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 5.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 135 bu yield goal, All Areas, Mississippi, 2016

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
DAP	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	pt					2.0000				
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%)	cwt					1.6430				
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%)	cwt					3.7500				
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	0.031	1.00	Sep		0.03	0.03	0.03	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							0.63	0.61	0.78	0.57

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 5.D Estimated costs for field operations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 135 bu yield goal, All Areas, Mississippi, 2016

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						0.15	3.45		3.45
Lime (Spread)	ton	30.36						1.37	31.73		31.73
Spin Spreader	5 ton		0.74	0.51	1.45			0.12	2.82	1.95	4.77
DAP	cwt	30.60						1.38	31.98		31.98
Potash (60% K2O)	cwt	17.65						0.79	18.44		18.44
Disk Heavy	20'		1.70	1.57	2.47			0.26	6.00	5.44	11.44
Bed/Disk w/roller	8R-30/40		1.64	1.16	2.39			0.23	5.42	4.83	10.25
App by Air (5 gal)	appl	6.50						0.19	6.69		6.69
Glyphosate 3lbs a.e	pt	4.52						0.14	4.66		4.66
Clarity	pt	6.45						0.19	6.64		6.64
Select Max	pt	12.35						0.37	12.72		12.72
Plant - Rigid	12R-30		1.10	1.65	2.17			0.13	5.05	4.58	9.63
Corn Seed RR2	thous	84.56						2.22	86.78		86.78
Custom Apply Fert	acre	7.00						0.16	7.16		7.16
UAN + Sulfur (28%)	cwt	26.83						0.60	27.43		27.43
Sprayer 600-750gal	60' 175hp		0.32	0.16	0.53			0.02	1.03	1.08	2.11
Atrazine 4L	pt	8.12						0.18	8.30		8.30
Halex GT	pt	25.99						0.58	26.57		26.57
Fert Appl (Liquid)	12R-30		1.38	1.35	2.36			0.10	5.19	3.63	8.82
UAN + Sulfur (28%)	cwt	61.24						1.15	62.39		62.39
Corn Consultant	acre	7.00						0.13	7.13		7.13
App by Air (3 gal)	appl	5.00						0.07	5.07		5.07
Intrepid 2F	oz	8.04						0.12	8.16		8.16
Header - Corn	8R-30		3.48	6.04	3.25			0.05	12.82	19.32	32.14
Grain Cart Corn	500 bu		0.56	0.37	0.82			0.01	1.76	1.40	3.16
Haul Corn	bu	31.05						0.12	31.17		31.17
Stalk Shredder Flex	20'		1.44	2.61	2.10			0.02	6.17	4.01	10.18
TOTALS		376.56	12.36	15.42	17.54	0.00	10.85	432.73	46.24	478.97	

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 5.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 135 bu yield goal, All Areas, Mississippi, 2016

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	523.80
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	48.25	0.00	0.00	0.00	0.00	0.00	26.83	61.24	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	23.32	0.00	34.11	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	8.04	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	84.56	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	7.00	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	6.31	0.00	0.00	0.00	0.00	2.17	0.53	2.36	0.00	0.00	0.00	6.17
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	4.08	0.00	0.00	0.00	0.00	1.10	0.32	1.38	0.00	0.00	0.00	5.48
REPAIR & MAINTENANCE	3.24	0.00	0.00	0.00	0.00	1.65	0.16	1.35	0.00	0.00	0.00	9.02
INTEREST ON OP. CAP.	4.30	0.00	0.00	0.00	0.89	2.35	1.54	1.38	0.19	0.00	0.00	0.20
TOTAL DIRECT EXPENSES	99.84	0.00	0.00	0.00	30.71	91.83	70.49	74.71	13.23	0.00	0.00	51.92
NET INCOME	-99.84	0.00	0.00	0.00	-30.71	-91.83	-70.49	-74.71	-13.23	0.00	0.00	471.88
NET INCOME TO DATE	-99.84	-99.84	-99.84	-99.84	-130.55	-222.38	-292.87	-367.58	-380.81	-380.81	-380.81	91.07

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 5.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 135 bu yield goal, All Areas, Mississippi, 2016

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Corn			2.91	3.10	3.29	3.49	3.68	3.88	4.07	4.26	4.46	4.65	4.85
PERCENT	YIELD	UNIT	-----dollars-----										
50	67.50	bu	-220 -266	-207 -253	-194 -240	-181 -227	-168 -214	-155 -201	-142 -188	-129 -175	-115 -162	-102 -149	-89 -136
60	81.00	bu	-184 -230	-168 -215	-153 -199	-137 -183	-121 -167	-105 -152	-90 -136	-74 -120	-58 -105	-43 -89	-27 -73
70	94.50	bu	-148 -194	-130 -176	-111 -157	-93 -139	-75 -121	-56 -102	-38 -84	-20 -66	-1 -47	16 -29	34 -11
80	108.00	bu	-112 -158	-91 -137	-70 -116	-49 -95	-28 -74	-7 -53	13 -32	34 -11	55 9	76 30	97 51
90	121.50	bu	-76 -122	-52 -98	-28 -75	-5 -51	18 -28	41 -4	65 19	88 42	112 66	136 89	159 113
100	135.00	bu	-39 -86	-13 -59	12 -33	38 -7	64 18	91 44	117 71	143 97	169 123	195 149	222 175
110	148.50	bu	-3 -49	25 -21	53 7	82 36	111 65	140 94	169 122	197 151	226 180	255 209	284 238
120	162.00	bu	32 -13	63 17	95 49	126 80	158 111	189 143	221 174	252 206	283 237	315 269	346 300
130	175.50	bu	68 22	102 56	136 90	170 124	204 158	238 192	272 226	306 260	341 294	375 328	409 362
140	189.00	bu	104 58	141 95	178 131	214 168	251 205	288 241	324 278	361 315	398 351	434 388	471 425
150	202.50	bu	140 94	180 134	219 173	258 212	298 251	337 291	376 330	415 369	455 409	494 448	533 487

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 2015 input prices.

Table 6.A Estimated costs per acre
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal
 Non-Delta Areas, Mississippi, 2016

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					
DAP	cwt	28.15	1.0870	30.60	_____
Potash (60% K2O)	cwt	21.27	0.8300	17.65	_____
Fert 10-34-0	cwt	32.50	0.5000	16.25	_____
UAN (32% N)	cwt	15.95	5.0000	79.75	_____
HERBICIDES					
Glyphosate 3lbs a.e	pt	2.26	2.0000	4.52	_____
Clarity	pt	12.89	0.5000	6.45	_____
Atrazine 4L	pt	2.03	4.0000	8.12	_____
Halex GT	pt	7.22	3.6000	25.99	_____
SEED/PLANTS					
Corn Seed B2RR	thous	3.27	28.0000	91.56	_____
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	7.00	1.0000	7.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.4231	5.68	_____
Harvesters	hour	13.40	0.1277	1.71	_____
HAND LABOR					
Implements	hour	9.06	0.2283	2.06	_____
UNALLOCATED LABOR	hour	13.41	0.4957	6.65	_____
DIESEL FUEL					
Tractors	gal	2.00	3.7029	7.41	_____
Harvesters	gal	2.00	1.7419	3.48	_____
REPAIR & MAINTENANCE					
Implements	acre	7.21	1.0000	7.21	_____
Tractors	acre	2.21	1.0000	2.21	_____
Harvesters	acre	4.19	1.0000	4.19	_____
INTEREST ON OP. CAP.	acre	9.49	1.0000	9.49	_____
TOTAL DIRECT EXPENSES				409.19	_____
FIXED EXPENSES					
Implements	acre	9.45	1.0000	9.45	_____
Tractors	acre	13.82	1.0000	13.82	_____
Harvesters	acre	16.53	1.0000	16.53	_____
TOTAL FIXED EXPENSES				39.80	_____
TOTAL SPECIFIED EXPENSES				448.99	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 6.B Summary of estimated costs and returns per acre
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal
 Non-Delta Areas, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.88	135.0000	523.80	_____

TOTAL INCOME				523.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	144.25	1.0000	144.25	_____
HERBICIDES	acre	45.08	1.0000	45.08	_____
SEED/PLANTS	acre	91.56	1.0000	91.56	_____
HAULING	acre	31.05	1.0000	31.05	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	7.00	1.0000	7.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.2283	2.06	_____
OPERATOR LABOR	hour	13.40	0.5508	7.39	_____
UNALLOCATED LABOR	hour	13.41	0.4957	6.65	_____
DIESEL FUEL	gal	2.00	5.4448	10.89	_____
REPAIR & MAINTENANCE	acre	13.61	1.0000	13.61	_____
INTEREST ON OP. CAP.	acre	9.49	1.0000	9.49	_____

TOTAL DIRECT EXPENSES				409.19	_____
RETURNS ABOVE DIRECT EXPENSES				114.61	_____
TOTAL FIXED EXPENSES				39.80	_____

TOTAL SPECIFIED EXPENSES				448.99	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				74.81	_____

Note: Cost of production estimates are based on 2015 input prices.

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

Table 6.C Estimated resource use for field operations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal
 Non-Delta Areas, Mississippi, 2016

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	pt					2.0000				
Clarity	pt					0.5000				
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Mar		0.04	0.04	0.08	0.03
DAP	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 B2RR	thous					28.0000				
Fert 10-34-0	cwt					0.5000				
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% N)	cwt					5.0000				
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	0.031	1.00	Sep		0.03	0.03	0.03	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							0.55	0.55	0.77	0.49

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 6.D Estimated costs for field operations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal
 Non-Delta Areas, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER		
-----dollars-----									
Soil Test	acre	3.30					0.15	3.45	3.45
Lime (Spread)	ton	30.36					1.37	31.73	31.73
App by Air (5 gal)	appl	6.50					0.19	6.69	6.69
Glyphosate 3lbs a.e	pt	4.52					0.14	4.66	4.66
Clarity	pt	6.45					0.19	6.64	6.64
Spin Spreader	5 ton		0.74	0.51	1.45		0.07	2.77	1.95 4.72
DAP	cwt	30.60					0.80	31.40	31.40
Potash (60% K2O)	cwt	17.65					0.46	18.11	18.11
NT Plant&Pre-Rigid	8R-30		1.85	2.28	3.66		0.20	7.99	6.77 14.76
Corn Seed B2RR	thous	91.56					2.40	93.96	93.96
Fert 10-34-0	cwt	16.25					0.43	16.68	16.68
Spray (Broadcast)	27'		1.10	0.49	1.88		0.08	3.55	2.24 5.79
Atrazine 4L	pt	8.12					0.18	8.30	8.30
Halex GT	pt	25.99					0.58	26.57	26.57
Fert Appl (Liquid)	8R-30		1.72	1.31	2.94		0.13	6.10	4.11 10.21
UAN (32% N)	cwt	79.75					1.79	81.54	81.54
Corn Consultant	acre	7.00					0.13	7.13	7.13
Header - Corn	8R-30		3.48	6.04	3.25		0.05	12.82	19.32 32.14
Grain Cart Corn	500 bu		0.56	0.37	0.82		0.01	1.76	1.40 3.16
Haul Corn	bu	31.05					0.12	31.17	31.17
Stalk Shredder Flex	20'		1.44	2.61	2.10		0.02	6.17	4.01 10.18
TOTALS		359.10	10.89	13.61	16.10	0.00	9.49	409.19	39.80 448.99

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 6.E Estimated monthly income and expense flows per acre
 Corn, no-tillage, BtRR, 12-row 30", 135 bu yield goal
 Non-Delta Areas, Mississippi, 2016

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	523.80
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	64.50	79.75	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	10.97	0.00	34.11	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	91.56	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	7.00	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	5.11	4.82	0.00	0.00	0.00	0.00	6.17
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	2.59	2.82	0.00	0.00	0.00	0.00	5.48
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	2.79	1.80	0.00	0.00	0.00	0.00	9.02
INTEREST ON OP. CAP.	1.52	0.00	0.00	0.00	0.52	4.36	2.76	0.13	0.00	0.00	0.00	0.20
TOTAL DIRECT EXPENSES	35.18	0.00	0.00	0.00	17.99	170.91	126.06	7.13	0.00	0.00	0.00	51.92
NET INCOME	-35.18	0.00	0.00	0.00	-17.99	-170.91	-126.06	-7.13	0.00	0.00	0.00	471.88
NET INCOME TO DATE	-35.18	-35.18	-35.18	-35.18	-53.17	-224.08	-350.14	-357.27	-357.27	-357.27	-357.27	114.61

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 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, 2016

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Corn	2.91	3.10	3.29	3.49	3.68	3.88	4.07	4.26	4.46	4.65	4.85		
PERCENT	YIELD	UNIT	dollars										
50	67.50	bu	-197 -236	-184 -223	-170 -210	-157 -197	-144 -184	-131 -171	-118 -158	-105 -145	-92 -132	-79 -119	-66 -106
60	81.00	bu	-161 -200	-145 -185	-129 -169	-113 -153	-98 -137	-82 -122	-66 -106	-51 -90	-35 -75	-19 -59	-3 -43
70	94.50	bu	-124 -164	-106 -146	-88 -127	-69 -109	-51 -91	-33 -72	-14 -54	3 -36	21 -17	40 0	58 18
80	108.00	bu	-88 -128	-67 -107	-46 -86	-25 -65	-4 -44	16 -23	37 -2	57 18	78 39	99 60	120 81
90	121.50	bu	-52 -92	-28 -68	-5 -45	18 -21	41 1	65 25	88 49	112 72	136 96	159 119	183 143
100	135.00	bu	-16 -56	9 -29	36 -3	62 22	88 48	114 74	140 101	166 127	193 153	219 179	245 205
110	148.50	bu	19 -19	48 8	77 37	106 66	135 95	163 124	192 152	221 181	250 210	279 239	307 268
120	162.00	bu	55 16	87 47	118 79	150 110	181 141	213 173	244 204	275 236	307 267	338 299	370 330
130	175.50	bu	92 52	126 86	160 120	194 154	228 188	262 222	296 256	330 290	364 324	398 358	432 392
140	189.00	bu	128 88	164 125	201 161	238 198	274 235	311 271	348 308	384 345	421 381	458 418	494 455
150	202.50	bu	164 124	203 163	243 203	282 242	321 281	360 321	400 360	439 399	478 438	518 478	557 517

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 2015 input prices.

Table 7.A Estimated costs per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2016

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					
DAP	cwt	28.15	1.3000	36.60	_____
Potash (60% K2O)	cwt	21.27	1.0000	21.27	_____
UAN + Sulfur (28%)	cwt	16.33	4.2500	69.40	_____
HERBICIDES					
Glyphosate 3lbs a.e	pt	2.26	2.0000	4.52	_____
2,4-D Amine 4	pt	2.44	2.0000	4.88	_____
Lexar	pt	7.56	6.0000	45.36	_____
INSECTICIDES					
Sivanto	oz	2.40	4.0000	9.60	_____
Karate Z	oz	2.80	1.5000	4.20	_____
Prevathon	oz	1.25	14.0000	17.50	_____
Transform WG	oz	7.74	1.0000	7.74	_____
SEED/PLANTS					
Sorghum Concept+ Po	lb	3.60	6.0000	21.60	_____
ADJUVANTS					
Surfactant	pt	5.35	0.3000	1.60	_____
HAULING					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6600	30.36	_____
CROP CONSULTANT					
Soybeans Consultant	acre	7.00	1.0000	7.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.3120	4.18	_____
Harvesters	hour	13.40	0.1021	1.37	_____
Self-Propelled	hour	13.40	0.0661	0.90	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0330	0.30	_____
UNALLOCATED LABOR					
	hour	13.41	0.4322	5.80	_____
DIESEL FUEL					
Tractors	gal	2.00	2.7303	5.47	_____
Harvesters	gal	2.00	1.3935	2.79	_____
Self-Propelled	gal	2.00	0.8505	1.70	_____
REPAIR & MAINTENANCE					
Implements	acre	4.90	1.0000	4.90	_____
Tractors	acre	1.62	1.0000	1.62	_____
Harvesters	acre	3.35	1.0000	3.35	_____
Self-Propelled	acre	0.75	1.0000	0.75	_____
INTEREST ON OP. CAP.	acre	7.49	1.0000	7.49	_____
TOTAL DIRECT EXPENSES				358.36	_____
FIXED EXPENSES					
Implements	acre	9.62	1.0000	9.62	_____
Tractors	acre	10.18	1.0000	10.18	_____
Harvesters	acre	13.23	1.0000	13.23	_____
Self-Propelled	acre	4.95	1.0000	4.95	_____
TOTAL FIXED EXPENSES				37.98	_____
TOTAL SPECIFIED EXPENSES				396.34	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 7.B Summary of estimated costs and returns per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Grain Sorghum	bu	3.69	100.0000	369.00	_____

TOTAL INCOME				369.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	127.27	1.0000	127.27	_____
HERBICIDES	acre	54.76	1.0000	54.76	_____
INSECTICIDES	acre	39.04	1.0000	39.04	_____
SEED/PLANTS	acre	21.60	1.0000	21.60	_____
ADJUVANTS	acre	1.60	1.0000	1.60	_____
HAULING	acre	25.00	1.0000	25.00	_____
CUSTOM LIME	acre	30.36	1.0000	30.36	_____
CROP CONSULTANT	acre	7.00	1.0000	7.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1772	1.61	_____
OPERATOR LABOR	hour	13.40	0.4803	6.45	_____
UNALLOCATED LABOR	hour	13.41	0.4322	5.80	_____
DIESEL FUEL	gal	2.00	4.9745	9.96	_____
REPAIR & MAINTENANCE	acre	10.62	1.0000	10.62	_____
INTEREST ON OP. CAP.	acre	7.49	1.0000	7.49	_____

TOTAL DIRECT EXPENSES				358.36	_____
RETURNS ABOVE DIRECT EXPENSES				10.64	_____
TOTAL FIXED EXPENSES				37.98	_____

TOTAL SPECIFIED EXPENSES				396.34	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-27.34	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 7.C Estimated resource use for field operations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2016

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	pt					2.0000				
2,4-D Amine 4	pt					2.0000				
Surfactant	pt					0.3000				
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Apr		0.04	0.04	0.08	0.03
DAP	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					6.0000				
Sprayer 800gal	80' 250hp		0.013	1.00	Apr			0.01	0.01	0.01
Lexar	pt					6.0000				
Soybeans 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%)	cwt					4.2500				
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 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 7.D Estimated costs for field operations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2016

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						0.15	3.45		3.45
Lime (Spread)	ton	30.36						1.37	31.73		31.73
Disk Harrow	24'		1.43	1.43	2.09			0.20	5.15	4.81	9.96
App by Air (5 gal)	appl	6.50						0.19	6.69		6.69
Glyphosate 3lbs a.e	pt	4.52						0.14	4.66		4.66
2,4-D Amine 4	pt	4.88						0.15	5.03		5.03
Surfactant	pt	1.60						0.05	1.65		1.65
Spin Spreader	5 ton		0.74	0.51	1.45			0.06	2.76	1.95	4.71
DAP	cwt	36.60						0.82	37.42		37.42
Potash (60% K2O)	cwt	21.27						0.48	21.75		21.75
Field Cultivate Fld	32'		0.82	0.70	1.19			0.06	2.77	3.45	6.22
Plant - Folding	12R-30		1.10	1.81	2.17			0.11	5.19	4.88	10.07
Sorghum Concept+ Po	lb	21.60						0.49	22.09		22.09
Sprayer 800gal	80' 250hp		0.34	0.15	0.40			0.02	0.91	0.99	1.90
Lexar	pt	45.36						1.02	46.38		46.38
Soybeans Consultant	acre	7.00						0.13	7.13		7.13
Fert Appl (Liquid)	12R-30		1.38	1.35	2.36			0.10	5.19	3.63	8.82
UAN + Sulfur (28%)	cwt	69.40						1.30	70.70		70.70
Sprayer 800gal	80' 250hp		0.34	0.15	0.40			0.01	0.90	0.99	1.89
Sivanto	oz	9.60						0.14	9.74		9.74
Sprayer 800gal	80' 250hp		0.34	0.15	0.40			0.01	0.90	0.99	1.89
Karate Z	oz	4.20						0.05	4.25		4.25
Sprayer 800gal	80' 250hp		0.34	0.15	0.40			0.01	0.90	0.99	1.89
Prevathon	oz	17.50						0.20	17.70		17.70
Sprayer 800gal	80' 250hp		0.34	0.15	0.40			0.01	0.90	0.99	1.89
Transform WG	oz	7.74						0.09	7.83		7.83
Header Wheat/Sorghum	25' Rigid		2.79	4.07	2.60			0.04	9.50	14.31	23.81
Haul Sorghum	bu	25.00						0.09	25.09		25.09
TOTALS		316.43	9.96	10.62	13.86	0.00	7.49	358.36	37.98	396.34	

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 7.E Estimated monthly income and expense flows per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2016

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	369.00
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	57.87	69.40	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	9.40	0.00	45.36	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	9.60	29.44	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	21.60	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.60	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	7.00	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	2.09	0.00	0.00	0.00	0.00	5.21	2.36	0.40	1.20	0.00	2.60
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	1.43	0.00	0.00	0.00	0.00	3.00	1.38	0.34	1.02	0.00	2.79
REPAIR & MAINTENANCE	0.00	1.43	0.00	0.00	0.00	0.00	3.17	1.35	0.15	0.45	0.00	4.07
INTEREST ON OP. CAP.	1.52	0.20	0.00	0.00	0.53	0.00	3.06	1.53	0.15	0.37	0.00	0.13
TOTAL DIRECT EXPENSES	35.18	5.15	0.00	0.00	18.03	0.00	139.27	83.02	10.64	32.48	0.00	34.59
NET INCOME	-35.18	-5.15	0.00	0.00	-18.03	0.00	-139.27	-83.02	-10.64	-32.48	0.00	334.41
NET INCOME TO DATE	-35.18	-40.33	-40.33	-40.33	-58.36	-58.36	-197.63	-280.65	-291.29	-323.77	-323.77	10.64

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 7.F Estimated returns for various price/yield combinations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Grain Sorghum			2.76	2.95	3.13	3.32	3.50	3.69	3.87	4.05	4.24	4.42	4.61
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu	-207 -245	-198 -236	-188 -226	-179 -217	-170 -208	-161 -199	-152 -190	-142 -180	-133 -171	-124 -162	-115 -153
60	60.00	bu	-182 -220	-171 -209	-160 -198	-149 -187	-137 -175	-126 -164	-115 -153	-104 -142	-93 -131	-82 -120	-71 -109
70	70.00	bu	-157 -195	-144 -182	-131 -169	-118 -156	-105 -143	-92 -130	-79 -117	-66 -104	-53 -91	-40 -78	-27 -65
80	80.00	bu	-131 -169	-117 -155	-102 -140	-87 -125	-72 -110	-58 -96	-43 -81	-28 -66	-13 -51	0 -37	15 -22
90	90.00	bu	-106 -144	-90 -128	-73 -111	-56 -94	-40 -78	-23 -61	-7 -45	9 -28	26 -11	42 4	59 21
100	100.00	bu	-81 -119	-63 -101	-44 -82	-26 -64	-7 -45	10 -27	29 -8	47 9	65 28	84 46	102 64
110	110.00	bu	-56 -94	-36 -74	-15 -53	4 -33	24 -13	45 7	65 27	85 47	105 67	126 88	146 108
120	120.00	bu	-31 -69	-9 -47	13 -24	35 -2	57 19	79 41	101 63	123 85	145 107	167 130	190 152
130	130.00	bu	-6 -44	17 -20	41 3	65 27	89 51	113 75	137 99	161 123	185 147	209 171	233 195
140	140.00	bu	19 -18	44 6	70 32	96 58	122 84	148 110	174 136	199 161	225 187	251 213	277 239
150	150.00	bu	44 6	71 33	99 61	127 89	154 116	182 144	210 172	237 199	265 227	293 255	320 282

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 2015 input prices.

Table 8.A Estimated costs per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2016

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					
DAP	cwt	28.15	1.0000	28.15	_____
Potash (60% K2O)	cwt	21.27	0.7500	15.95	_____
Fert 41-0-0-4	cwt	20.50	2.8000	57.40	_____
FUNGICIDES					
CruiserMaxx	oz	4.44	4.5000	19.98	_____
Prosaro	oz	2.77	8.0000	22.16	_____
HERBICIDES					
Axiom 68DF	oz	0.23	10.0000	2.30	_____
Harmony Extra SG TS	oz	29.95	0.7500	22.46	_____
Axial XL	oz	1.10	16.4000	18.04	_____
INSECTICIDES					
Karate Z	oz	2.80	1.5000	4.20	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.38	90.0000	34.20	_____
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	5.00	1.0000	5.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.2648	3.55	_____
Harvesters	hour	13.40	0.1021	1.37	_____
HAND LABOR					
Implements	hour	9.06	0.1363	1.23	_____
UNALLOCATED LABOR					
	hour	13.41	0.2936	3.94	_____
DIESEL FUEL					
Tractors	gal	2.00	2.3178	4.64	_____
Harvesters	gal	2.00	1.3935	2.79	_____
REPAIR & MAINTENANCE					
Implements	acre	3.84	1.0000	3.84	_____
Tractors	acre	1.37	1.0000	1.37	_____
Harvesters	acre	3.35	1.0000	3.35	_____
INTEREST ON OP. CAP.	acre	8.89	1.0000	8.89	_____
TOTAL DIRECT EXPENSES				360.77	_____
FIXED EXPENSES					
Implements	acre	8.34	1.0000	8.34	_____
Tractors	acre	8.64	1.0000	8.64	_____
Harvesters	acre	13.23	1.0000	13.23	_____
TOTAL FIXED EXPENSES				30.21	_____
TOTAL SPECIFIED EXPENSES				390.98	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 8.B Summary of estimated costs and returns per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Wheat	bu	5.11	70.0000	357.70	_____

TOTAL INCOME				357.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	24.50	1.0000	24.50	_____
FERTILIZERS	acre	101.50	1.0000	101.50	_____
FUNGICIDES	acre	42.14	1.0000	42.14	_____
HERBICIDES	acre	42.80	1.0000	42.80	_____
INSECTICIDES	acre	4.20	1.0000	4.20	_____
SEED/PLANTS	acre	34.20	1.0000	34.20	_____
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	5.00	1.0000	5.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1363	1.23	_____
OPERATOR LABOR	hour	13.40	0.3670	4.92	_____
UNALLOCATED LABOR	hour	13.41	0.2936	3.94	_____
DIESEL FUEL	gal	2.00	3.7114	7.43	_____
REPAIR & MAINTENANCE	acre	8.56	1.0000	8.56	_____
INTEREST ON OP. CAP.	acre	8.89	1.0000	8.89	_____

TOTAL DIRECT EXPENSES				360.77	_____
RETURNS ABOVE DIRECT EXPENSES				-3.07	_____
TOTAL FIXED EXPENSES				30.21	_____

TOTAL SPECIFIED EXPENSES				390.98	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-33.28	_____

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 8.C Estimated resource use for field operations, per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER UNIT	ALLOC LABOR	UNALL LABOR	
						-----hours-----				
Soil Test	acre			0.33	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	0.06	
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Sep		0.04	0.04	0.03	
DAP	cwt					1.0000				
Potash (60% K2O)	cwt					0.7500				
Field Cultivate Fld	32'	MFWD 170	0.046	1.00	Sep		0.04	0.04	0.03	
Grain Drill	20'	MFWD 170	0.094	1.00	Oct		0.09	0.09	0.18	
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 68DF	oz					10.0000				
Harmony Extra SG TS	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	0.08	
Haul Wheat	bu					70.0000				
TOTALS							0.36	0.36	0.50	0.29

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 8.D Estimated costs for field operations, per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, Mississippi, 2016

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						0.12	3.42	3.42
Lime (Spread)	ton	30.36						1.14	31.50	31.50
Disk Harrow	24'		1.43	1.43	1.98			0.18	5.02	4.81 9.83
Spin Spreader	5 ton		0.74	0.51	1.39			0.10	2.74	1.95 4.69
DAP	cwt	28.15						1.06	29.21	29.21
Potash (60% K2O)	cwt	15.95						0.60	16.55	16.55
Field Cultivate Fld	32'		0.82	0.70	1.13			0.10	2.75	3.45 6.20
Grain Drill	20'		1.65	1.85	3.12			0.22	6.84	5.69 12.53
Wheat Seed Private	lb	34.20						1.15	35.35	35.35
CruiserMaxx	oz	19.98						0.67	20.65	20.65
Wheat Consultant	acre	5.00						0.17	5.17	5.17
App by Air (5 gal)	appl	6.50						0.19	6.69	6.69
Axiom 68DF	oz	2.30						0.07	2.37	2.37
Harmony Extra SG TS	oz	22.46						0.67	23.13	23.13
App by Air (5 gal)	appl	6.50						0.15	6.65	6.65
Axial XL	oz	18.04						0.41	18.45	18.45
App by Air (3 gal)	appl	5.00						0.09	5.09	5.09
Karate Z	oz	4.20						0.08	4.28	4.28
App Fert by Air	cwt	9.80						0.18	9.98	9.98
Fert 41-0-0-4	cwt	28.70						0.54	29.24	29.24
App Fert by Air	cwt	9.80						0.15	9.95	9.95
Fert 41-0-0-4	cwt	28.70						0.43	29.13	29.13
App by Air (5 gal)	appl	6.50						0.07	6.57	6.57
Prosaro	oz	22.16						0.25	22.41	22.41
Header Wheat/Sorghum	25' Rigid		2.79	4.07	2.47			0.03	9.36	14.31 23.67
Haul Wheat	bu	18.20						0.07	18.27	18.27
TOTALS		325.80	7.43	8.56	10.09	0.00	8.89	360.77	30.21	390.98

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

Table 8.E Estimated monthly income and expense flows per acre
 Wheat followed by soybeans, 70 bu yield goal
 All Areas, Mississippi, 2016

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	357.70
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	44.10	0.00	0.00	0.00	0.00	28.70	28.70	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	19.98	0.00	0.00	0.00	0.00	0.00	22.16	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	24.76	0.00	18.04	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	4.20	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	34.20	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	5.00	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	4.50	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.47
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	2.99	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79
REPAIR & MAINTENANCE	0.00	0.00	2.64	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.07
INTEREST ON OP. CAP.	0.00	0.00	3.30	2.21	0.93	0.00	0.56	0.89	0.58	0.32	0.00	0.10
TOTAL DIRECT EXPENSES	0.00	0.00	91.19	68.01	32.19	0.00	25.10	48.59	39.08	28.98	0.00	27.63
NET INCOME	0.00	0.00	-91.19	-68.01	-32.19	0.00	-25.10	-48.59	-39.08	-28.98	0.00	330.07
NET INCOME TO DATE	0.00	0.00	-91.19	-159.20	-191.39	-191.39	-216.49	-265.08	-304.16	-333.14	-333.14	-3.07

Note: Cost of production estimates are based on 2015 input prices.

Fertilization decisions should be based on soil tests.

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

Lime cost prorated for application every 3rd year.

* Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Wheat			3.83	4.08	4.34	4.59	4.85	5.11	5.36	5.62	5.87	6.13	6.38
			dollars										
PERCENT	YIELD	UNIT											
50	35.00	bu	-217	-208	-199	-190	-181	-172	-163	-154	-145	-137	-128
			-247	-238	-229	-220	-211	-202	-194	-185	-176	-167	-158
60	42.00	bu	-192	-181	-171	-160	-149	-138	-128	-117	-106	-95	-85
			-222	-211	-201	-190	-179	-169	-158	-147	-136	-126	-115
70	49.00	bu	-167	-154	-142	-129	-117	-104	-92	-79	-67	-54	-42
			-197	-185	-172	-160	-147	-135	-122	-110	-97	-85	-72
80	56.00	bu	-142	-128	-113	-99	-85	-70	-56	-42	-28	-13	0
			-172	-158	-144	-129	-115	-101	-86	-72	-58	-43	-29
90	63.00	bu	-117	-101	-85	-69	-53	-37	-20	-4	11	27	43
			-147	-131	-115	-99	-83	-67	-51	-35	-18	-2	13
100	70.00	bu	-92	-74	-56	-38	-20	-3	14	32	50	68	86
			-122	-104	-86	-69	-51	-33	-15	2	20	38	56
110	77.00	bu	-67	-47	-28	-8	11	30	50	70	89	109	129
			-97	-78	-58	-38	-19	0	20	40	59	79	99
120	84.00	bu	-42	-21	0	21	43	64	86	107	129	150	172
			-72	-51	-29	-8	13	34	56	77	98	120	141
130	91.00	bu	-17	5	29	52	75	98	122	145	168	191	215
			-47	-24	-1	22	45	68	91	115	138	161	184
140	98.00	bu	7	32	57	82	107	132	157	182	207	232	257
			-22	2	27	52	77	102	127	152	177	202	227
150	105.00	bu	32	59	86	112	139	166	193	220	247	273	300
			2	29	55	82	109	136	163	190	216	243	270

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 2015 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, 2016

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	315,000	300	8	13.64	13.40	27.28	32.81	73.49	129.47	202.96
Combine (300-349 hp)	325 hp	332,000	300	8	16.73	13.40	33.46	34.58	81.44	136.45	217.90
Combine (350-399 hp)	355 hp	332,000	300	8	18.27	13.40	36.54	34.58	84.52	136.45	220.98
Combine (400-449 hp)	425 hp	407,000	300	8	21.87	13.40	43.75	42.39	99.54	167.28	266.83
Combine (450-499hp)	475 hp	414,000	300	8	24.44	13.40	48.89	43.12	105.42	170.16	275.58
Tractor (20-39hp)CB	MFWD 30	31,000	600	8	1.54	13.40	3.08	0.96	17.45	5.82	23.28
Tractor (20-39hp)RB	MFWD 30	19,900	600	8	1.54	13.40	3.08	0.62	17.10	3.74	20.85
Tractor (40-59hp)CB	2WD 50	31,100	600	8	2.57	13.40	5.14	0.97	19.51	5.84	25.36
Tractor (40-59hp)CB	MFWD 50	38,100	600	8	2.57	13.40	5.14	1.19	19.73	7.16	26.90
Tractor (40-59hp)RB	2WD 50	18,500	600	8	2.57	13.40	5.14	0.57	19.12	3.47	22.60
Tractor (40-59hp)RB	MFWD 50	23,600	600	8	2.57	13.40	5.14	0.73	19.28	4.43	23.72
Tractor (60-89hp)CB	2WD 75	47,700	600	8	3.86	13.40	7.72	1.49	22.61	8.97	31.58
Tractor (60-89hp)CB	MFWD 75	49,300	600	8	3.86	13.40	7.72	1.54	22.66	9.27	31.93
Tractor (60-89hp)RB	2WD 75	37,000	600	8	3.86	13.40	7.72	1.15	22.27	6.95	29.23
Tractor (60-89hp)RB	MFWD 75	37,800	600	8	3.86	13.40	7.72	1.18	22.30	7.10	29.41
Tractor (90-119hp)CB	2WD 105	65,300	600	8	5.40	13.40	10.80	2.04	26.24	12.28	38.52
Tractor (90-119hp)CB	MFWD 105	78,300	600	8	5.40	13.40	10.80	2.44	26.65	14.72	41.38
Tractor (90-119hp)RB	2WD 105	59,900	600	8	5.40	13.40	10.80	1.87	26.08	11.26	37.34
Tractor (90-119hp)RB	MFWD 105	60,300	600	8	5.40	13.40	10.80	1.88	26.09	11.33	37.43
Tractor (120-139hp)CB	2WD 130	96,300	600	8	6.69	13.40	13.38	3.00	29.79	18.10	47.90
Tractor (120-139hp)CB	MFWD 130	116,000	600	8	6.69	13.40	13.38	3.62	30.40	21.81	52.22
Tractor (140-159hp)CB	2WD 150	108,000	600	8	7.72	13.40	15.44	3.37	32.21	20.30	52.52
Tractor (140-159hp)CB	MFWD 150	149,000	600	8	7.72	13.40	15.44	4.65	33.49	28.02	61.51
Tractor (160-179hp)CB	MFWD 170	166,000	600	8	8.75	13.40	17.50	5.18	36.08	32.66	68.75
Tractor (180-199hp)CB	MFWD 190	180,000	600	8	9.77	13.40	19.55	5.62	38.58	35.42	74.00
Tractor (200-249hp)CB	MFWD 225	228,000	600	8	11.58	13.40	23.16	7.12	43.68	44.86	88.55
Tractor (200-249hp)CB	Track 225	277,000	600	8	11.58	13.40	23.16	8.65	45.21	54.50	99.72
Tractor (250-349hp)CB	4WD 300	282,000	600	8	15.44	13.40	30.88	8.81	53.09	55.49	108.58
Tractor (250-349hp)CB	MFWD 300	287,000	600	8	15.44	13.40	30.88	8.96	53.25	56.47	109.72
Tractor (250-349hp)CB	Track 300	289,000	600	8	15.44	13.40	30.88	9.03	53.31	56.86	110.18
Tractor (350-449hp)CB	4WD 400	341,000	600	8	20.58	13.40	41.17	10.65	65.23	67.10	132.33
Tractor (350-449hp)CB	Track 400	364,000	600	8	20.58	13.40	41.17	11.37	65.95	71.62	137.58
Tractor (450-550hp)CB	4WD 500	383,000	600	8	25.73	13.40	51.47	11.96	76.84	75.36	152.20
Tractor (450-550hp)CB	Track 500	423,000	600	8	25.73	13.40	51.47	13.21	78.09	83.23	161.32
Utility Vehicle	900 CC	12,200	200	8	1.00	13.40	2.25	1.90	17.55	7.52	25.07
Utility Vehicle	800 CC	9,900	200	8	0.70	13.40	1.57	1.54	16.52	6.10	22.62
Utility Vehicle-mule	600 CC	7,000	200	8	0.50	13.40	1.12	1.09	15.61	4.31	19.93

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, 2016

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	5.78	6.63	10.79	23.21	42.59	65.81
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	5.78	9.28	14.13	29.21	55.78	84.99
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	3.87	6.20	9.61	19.69	37.92	57.61
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	4.90	7.97	15.85	28.73	62.56	91.30
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	3.87	6.29	12.51	22.68	49.39	72.08
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	5.78	10.61	21.58	37.99	85.18	123.17
Cotton Picker/Modu	6R-30 (500)	727,000	200	8	25.73	0.218	4.90	11.23	24.79	40.92	97.82	138.75
Cotton Picker/Modu	6R-38 (365)	536,000	200	8	20.58	0.172	3.87	7.09	14.43	25.39	56.94	82.33
Cotton Picker/Module	6R-38 (500)	727,000	200	8	25.73	0.172	3.87	8.86	19.57	32.31	77.23	109.54
Dry Applicator SP	70'300cuft	293,000	350	8	16.98	0.015	0.27	0.51	0.23	1.02	1.55	2.58
Sprayer 600-750gal	60' 175hp	174,000	350	8	9.00	0.017	0.31	0.31	0.16	0.79	1.08	1.87
Sprayer 600-825gal	80' 175hp	180,000	350	8	11.81	0.013	0.23	0.31	0.12	0.67	0.83	1.51
Sprayer 600-825gal	90' 250hp	255,000	350	8	12.73	0.011	0.21	0.29	0.16	0.67	1.05	1.72
Sprayer 800gal	100' 250hp	257,000	350	8	14.15	0.010	0.18	0.29	0.14	0.63	0.95	1.59
Sprayer 800gal	80' 250hp	212,000	350	8	12.86	0.013	0.23	0.34	0.15	0.72	0.98	1.71
Sprayer 1000-1400gal	90' 275hp	297,000	350	8	14.15	0.010	0.18	0.29	0.16	0.65	1.10	1.76
Sprayer 1000gal	100' 300hp	301,000	350	8	15.44	0.010	0.18	0.32	0.17	0.68	1.12	1.80
Sprayer 1200+gal	120' 300hp	336,000	350	8	15.44	0.008	0.15	0.27	0.15	0.58	1.04	1.63

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, 2016

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost	
									Imp.	P.U.		Imp.	P.U.		
				dollars	hours	years	hr/ac	-----\$/acre-----							
Bed-Paratill	Fold	8R-38	MFWD 225	54,400	150	12	0.080	1.08	1.87	1.58	0.57	5.11	2.75	3.62	11.49
Bed-Paratill	Fold	8R-38 2x1	MFWD 225	69,100	150	12	0.053	0.72	1.24	1.34	0.38	3.69	2.32	2.41	8.43
Bed-Paratill	Fold	12R-38	MFWD 225	69,100	150	12	0.053	0.72	1.24	1.34	0.38	3.69	2.32	2.41	8.43
Bed-Paratill	Rigid	4R-30	MFWD 225	16,600	150	12	0.204	2.73	4.73	1.22	1.45	10.15	2.12	9.16	21.44
Bed-Paratill	Rigid	4R-38	MFWD 225	13,500	150	12	0.160	2.15	3.72	0.78	1.14	7.81	1.36	7.21	16.39
Bed-Paratill	Rigid	6R-30	MFWD 225	19,900	150	12	0.136	1.82	3.15	0.97	0.97	6.93	1.69	6.11	14.74
Bed-Paratill	Rigid	6R-38	MFWD 225	18,800	150	12	0.107	1.44	2.49	0.73	0.76	5.42	1.26	4.82	11.51
Bed-Paratill	Rigid	8R-30	MFWD 225	24,900	150	12	0.102	1.36	2.36	0.91	0.72	5.38	1.59	4.58	11.56
Bed-Paratill	Rigid	8R-38	MFWD 225	24,900	150	12	0.080	1.08	1.87	0.72	0.57	4.25	1.25	3.62	9.13
Bed-Paratill	w/rol	4R-30	MFWD 225	17,900	150	12	0.204	2.73	4.73	1.32	1.45	10.24	2.29	9.16	21.70
Bed-Paratill	w/rol	4R-38	MFWD 225	17,900	150	12	0.160	2.15	3.72	1.03	1.14	8.06	1.80	7.21	17.09
Bed-Paratill	w/rol	6R-38	MFWD 225	24,700	150	12	0.107	1.44	2.49	0.95	0.76	5.65	1.66	4.82	12.14
Bed-Rip/Disk	Fold.	8R-38	MFWD 190	36,900	300	20	0.073	0.97	1.42	0.13	0.41	2.95	0.63	2.58	6.18
Bed-Rip/Disk	Fold.	12R-30	MFWD 225	54,400	300	20	0.061	0.82	1.42	0.16	0.43	2.85	0.79	2.76	6.41
Bed-Rip/Disk	Fold.	12R-38	MFWD 225	54,400	300	20	0.046	0.61	1.07	0.12	0.32	2.14	0.59	2.07	4.81
Bed-Rip/Disk	Rigid	4R-30	MFWD 190	17,300	300	20	0.184	2.47	3.61	0.15	1.03	7.29	0.75	6.54	14.60
Bed-Rip/Disk	Rigid	4R-38	MFWD 190	17,300	300	20	0.146	1.96	2.86	0.12	0.82	5.78	0.60	5.19	11.58
Bed-Rip/Disk	Rigid	6R-38	MFWD 190	23,900	300	20	0.097	1.30	1.90	0.11	0.54	3.87	0.55	3.44	7.86
Bed-Rip/Disk	Rigid	8R-30	MFWD 190	31,300	300	20	0.139	1.86	2.71	0.21	0.78	5.58	1.03	4.92	11.53
Bed-Rip/Disk	Rigid	8R-38	MFWD 190	31,300	300	20	0.073	0.97	1.42	0.11	0.41	2.93	0.54	2.58	6.06
Bed-Rip/Disk	Rigid	6R-30	MFWD 190	23,900	300	20	0.123	1.65	2.41	0.14	0.69	4.90	0.69	4.36	9.96
Bed-Rip/Disk/Cond.		6-Row	MFWD 225	20,100	150	12	0.107	1.44	2.49	0.78	0.76	5.47	1.35	4.82	11.65
Bed-Rip/Disk/Cond.		8-Row	MFWD 225	28,700	150	12	0.080	1.08	1.87	0.83	0.57	4.36	1.45	3.62	9.44
Bed/Disk (Hipper)		4R-38	MFWD 150	8,380	160	10	0.147	1.97	2.27	0.30	0.68	5.25	0.81	4.13	10.20
Bed/Disk (Hipper)		6R-30	MFWD 170	15,100	160	10	0.125	1.67	2.18	0.47	0.64	4.98	1.24	4.08	10.31
Bed/Disk (Hipper)		6R-38	MFWD 170	15,100	160	10	0.098	1.32	1.72	0.37	0.51	3.93	0.98	3.22	8.14
Bed/Disk (Hipper)		8R-30	MFWD 190	18,100	160	10	0.093	1.25	1.83	0.42	0.52	4.04	1.12	3.32	8.48
Bed/Disk (Hipper)		8R-38 2x1	MFWD 190	31,200	160	10	0.049	0.66	0.96	0.38	0.27	2.28	1.01	1.74	5.05
Bed/Disk (Hipper)		12R-30	MFWD 225	31,300	160	10	0.062	0.83	1.44	0.48	0.44	3.21	1.29	2.80	7.31
Bed/Disk (Hipper)		12R-38	MFWD 225	34,200	160	10	0.049	0.66	1.14	0.42	0.35	2.57	1.11	2.21	5.90
Bed/Disk (Hipper)		16R40	MFWD 300	42,700	160	10	0.035	0.47	1.09	0.37	0.31	2.26	0.99	1.99	5.25
Bed/Disk (Hipper)Fl		8R-38	MFWD 190	20,000	160	10	0.074	0.99	1.44	0.37	0.41	3.23	0.97	2.62	6.83
Bed/Disk (Hipper)Rd		8R-38	MFWD 190	18,700	160	10	0.074	0.99	1.44	0.34	0.41	3.20	0.91	2.62	6.74
Bed/Disk w/roller		8R-30/40	MFWD 190	28,600	160	10	0.093	1.25	1.83	0.67	0.52	4.28	1.77	3.32	9.37
Bed/Disk w/roller		12R-30/40	MFWD 225	46,700	160	10	0.062	0.83	1.44	0.72	0.44	3.46	1.92	2.80	8.19
Bed/Disk w/roller		8R-38	MFWD 190	28,600	160	10	0.074	0.99	1.44	0.52	0.41	3.38	1.39	2.62	7.41
Bed/Lister		4R-38	MFWD 150	18,200	160	8	0.228	3.06	3.52	0.97	1.06	8.62	3.06	6.39	18.09
Bed/Lister		6R-38	MFWD 150	19,600	160	8	0.120	1.61	1.85	0.55	0.55	4.57	1.73	3.36	9.68
Bed/Lister		8R-30	MFWD 190	22,100	160	8	0.114	1.53	2.23	0.59	0.64	4.99	1.86	4.04	10.90
Bed/Lister		8R-38	MFWD 190	27,000	160	8	0.090	1.20	1.76	0.57	0.50	4.05	1.79	3.19	9.05
Bed/Lister		8R-38 2x1	MFWD 190	42,300	160	8	0.060	0.80	1.17	0.59	0.33	2.91	1.87	2.12	6.91
Bed/Lister		12R-38	MFWD 225	42,300	160	8	0.060	0.80	1.39	0.59	0.42	3.22	1.87	2.69	7.79
Bed/Lister		16R-30	MFWD 225	53,900	160	8	0.035	0.47	0.81	0.44	0.25	1.97	1.39	1.57	4.95
Bed/Lister		16R40	MFWD 300	53,600	160	8	0.043	0.57	1.33	0.54	0.38	2.83	1.70	2.43	6.97
Bed/Lister-Roll-Fold		8R-38	MFWD 190	24,400	160	10	0.074	0.99	1.44	0.45	0.41	3.31	1.19	2.62	7.13
Bed/Lister-Roll-Fold		12R-30	MFWD 225	29,600	160	10	0.062	0.83	1.44	0.46	0.44	3.19	1.22	2.80	7.21
Bed/Lister-Roll-Fold		12R-38	MFWD 225	33,800	160	10	0.049	0.66	1.14	0.41	0.35	2.57	1.10	2.21	5.88
Bed/Lister-Roll-Fold		16R-30	MFWD 225	34,300	160	10	0.046	0.62	1.08	0.40	0.33	2.45	1.06	2.10	5.61
Bed/Lister-Roll-Rig.		8R-38	MFWD 190	21,300	160	10	0.074	0.99	1.44	0.39	0.41	3.25	1.04	2.62	6.92
Blade-Box		6'-7'	MFWD 105	1,100	200	20	0.020	0.26	0.21	0.01	0.03	0.53	0.00	0.22	0.76
Blade-Box		8'-10'	MFWD 105	4,200	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Box		12'-16'	MFWD 105	7,060	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper		6'-7'	MFWD 105	1,150	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper		8'-10'	MFWD 105	3,340	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper		12'-16'	MFWD 105	6,700	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boll Buggy		4R-38(250)	MFWD 190	30,500	200	10	0.257	3.45	5.04	1.96	1.45	11.91	3.99	9.13	25.03
Boll Buggy		4R-38(350)	MFWD 190	30,500	200	10	0.257	3.45	5.04	1.96	1.45	11.91	3.99	9.13	25.03
Boll Buggy		4R2x1(350)	MFWD 190	30,500	200	10	0.172	2.30	3.37	1.31	0.96	7.96	2.67	6.10	16.73
Boll Buggy		6R-30(355)	MFWD 190	30,500	200	10	0.218	2.92	4.26	1.66	1.22	10.08	3.38	7.73	21.19
Boll Buggy		6R-38(355)	MFWD 190	30,500	200	10	0.172	2.30	3.37	1.31	0.96	7.96	2.67	6.10	16.73
Chisel Plow-Folding		24'	MFWD 190	38,100	150	12	0.076	1.02	1.49	1.05	0.43	4.00	1.82	2.70	8.53
Chisel Plow-Folding		32'	MFWD 225	49,100	150	12	0.057	0.77	1.33	1.02	0.41	3.54	1.77	2.59	7.91
Chisel Plow-Folding		42'	MFWD 225	55,700	150	12	0.044	0.58	1.01	0.88	0.31	2.80	1.53	1.97	6.31
Chisel Plow-Folding		50'	MFWD 225	78,400	150	10	0.036	0.49	0.85	1.25	0.26	2.87	2.04	1.65	6.57
Chisel Plow-Folding		61'	MFWD 225	86,600	150	12	0.030	0.40	0.70	0.94	0.21	2.27	1.64	1.35	5.27
Chisel Plow-Rigid		10'	MFWD 170	6,420	150	12	0.184	2.47	3.23	0.42	0.95	7.10	0.74	6.03	13.88
Chisel Plow-Rigid		15'	2WD 130	11,400	150	12	0.123	1.65	1.64	0.50	0.37	4.17	0.88	2.23	7.29
Chisel Plow-Rigid		20'	MFWD 225	13,400	150	12	0.102	1.37	2.37	0.49	0.73	4.98	0.86	4.60	10.45
Chisel Plow-Rigid		24'	MFWD 190	13,200	150	12	0.077	1.03	1.50	0.36	0.43	3.33	0.63	2.72	6.70
Cultivate		4R-30	2WD 105	11,700	150	10	0.206	2.76	2.22	0.64	0.42	6.05	1.69	2.53	10.28
Cultivate		4R-38	2WD 105	11,800	150	10	0.162	2.17	1.75	0.51	0.30	4.74	1.34	1.82	7.92
Cultivate		6R-30	MFWD 150	16,200	150	10	0.137	1.84	2.12	0.59	0.64	5.19	1.56	3.85	10.62
Cultivate		6R-38	MFWD 150	16,500	150	10	0.108	1.45	1.67	0.47	0.50	4.11	1.26	3.04	8.41
Cultivate		8R-30	MFWD 190	20,500	150	10	0.103	1.38	2.01	0.56	0.58	4.54	1.48	3.65	9.68
Cultivate		8R-38	MFWD 190	21,200	150	10	0.073	0.98	1.44	0.41	0.41	3.25	1.09	2.60	6.96
Cultivate		8R-38 2x1	MFWD 190	37,100	150	10	0.054	0.72	1.06	0.53	0.30	2.63	1.41	1.92	5.97
Cultivate		12R-30	MFWD 225	35,300	150	10	0.068	0.92	1.59	0.64	0.48	3.65	1.70	3.08	8.44
Cultivate		12R-38	MFWD 225	37,100	150	10	0.054	0.72	1.25	0.53	0.38	2.90	1.41	2.43	6.76

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2016 (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	46,600	150	10	0.051	0.69	1.19	0.64	0.36	2.89	1.69	2.31	6.89
Cultivate & Post	4R-30	2WD 105	17,100	150	10	0.220	3.94	2.37	1.00	0.41	7.73	2.64	2.47	12.86
Cultivate & Post	4R-38	2WD 105	17,200	150	10	0.173	3.10	1.87	0.79	0.32	6.09	2.09	1.95	10.14
Cultivate & Post	6R-30	MFWD 150	21,600	150	10	0.146	2.62	2.26	0.84	0.68	6.42	2.23	4.10	12.76
Cultivate & Post	6R-38	MFWD 150	21,900	150	10	0.115	2.07	1.78	0.67	0.53	5.07	1.78	3.24	10.11
Cultivate & Post	8R-30	MFWD 190	25,900	150	10	0.110	1.97	2.15	0.75	0.61	5.50	2.00	3.89	11.40
Cultivate & Post	8R-38	MFWD 190	26,600	150	10	0.086	1.55	1.70	0.61	0.48	4.36	1.62	3.08	9.07
Cultivate & Post	8R-38 2x1	MFWD 190	37,900	150	10	0.057	1.03	1.13	0.58	0.32	3.08	1.54	2.05	6.67
Cultivate & Post	10R-30	MFWD 225	31,400	150	10	0.088	1.57	2.03	0.73	0.62	4.98	1.94	3.94	10.87
Cultivate & Post	12R-30	MFWD 225	40,700	150	10	0.073	1.31	1.69	0.79	0.52	4.33	2.10	3.29	9.72
Cultivate & Post	12R-38	MFWD 225	44,800	150	10	0.057	1.03	1.34	0.69	0.41	3.48	1.82	2.59	7.90
Cultivate & Post	16R-30	MFWD 225	54,300	150	10	0.055	0.98	1.27	0.79	0.39	3.44	2.10	2.46	8.01
Disk & Incorporate	14'	2WD 130	29,500	200	10	0.149	2.68	2.00	1.32	0.45	6.46	2.33	2.71	11.50
Disk & Incorporate	20'	MFWD 190	45,000	180	10	0.092	1.23	1.80	1.38	0.51	4.95	2.44	3.27	10.66
Disk & Incorporate	24'	MFWD 190	44,500	200	10	0.087	1.56	1.70	1.16	0.49	4.92	2.05	3.09	10.07
Disk & Incorporate	28'	MFWD 225	55,200	200	10	0.074	1.34	1.73	1.23	0.53	4.84	2.18	3.35	10.38
Disk & Incorporate	32'	MFWD 225	58,900	200	10	0.065	1.17	1.51	1.15	0.46	4.31	2.03	2.93	9.28
Disk Harrow	14'	2WD 130	24,100	180	10	0.140	1.88	1.87	0.93	0.42	5.11	1.98	2.54	9.64
Disk Harrow	20'	MFWD 190	39,600	180	10	0.098	1.31	1.92	1.08	0.55	4.86	2.28	3.47	10.63
Disk Harrow	24'	MFWD 190	44,500	180	10	0.081	1.09	1.60	1.01	0.46	4.16	2.13	2.89	9.20
Disk Harrow	28'	MFWD 225	49,800	180	10	0.070	0.94	1.62	0.97	0.49	4.03	2.05	3.14	9.23
Disk Harrow	32'	MFWD 225	53,500	180	10	0.061	0.82	1.42	0.91	0.43	3.59	1.92	2.75	8.27
Disk Harrow	42'	MFWD 225	98,500	180	10	0.046	0.62	1.08	1.27	0.33	3.32	2.70	2.09	8.12
Disk Harrow 40-100hp	14'	2WD 75	14,600	180	10	0.140	1.88	1.08	0.56	0.16	3.69	1.20	0.97	5.87
Disk Heavy	14'	MFWD 150	24,100	180	10	0.145	1.95	2.25	0.97	0.67	5.86	2.06	4.08	12.02
Disk Heavy	20'	MFWD 170	39,600	180	10	0.097	1.30	1.70	1.07	0.50	4.58	2.26	3.17	10.02
Disk Heavy	28'	MFWD 190	49,800	180	10	0.075	1.01	1.48	1.04	0.42	3.96	2.21	2.68	8.85
Disk Ripper	15'	MFWD 225	41,000	180	10	0.136	1.82	3.15	1.55	0.97	7.50	3.27	6.11	16.89
Ditcher		2WD 130	4,900	200	10	0.020	0.26	0.26	0.03	0.06	0.63	0.05	0.36	1.04
Ditcher (1m/160a)		2WD 130	4,900	200	10	0.009	0.12	0.12	0.01	0.02	0.29	0.02	0.16	0.49
Fert Appl (Liquid)	4R-38	MFWD 150	13,500	150	8	0.154	2.77	2.38	1.39	0.72	7.27	1.57	4.33	13.17
Fert Appl (Liquid)	6R-30	MFWD 170	11,200	150	8	0.130	2.34	2.29	0.97	0.67	6.29	1.10	4.27	11.67
Fert Appl (Liquid)	6R-38	MFWD 170	12,200	150	8	0.103	1.85	1.80	0.84	0.53	5.03	0.94	3.37	9.36
Fert Appl (Liquid)	8R-30	MFWD 190	12,200	150	8	0.098	1.76	1.92	0.79	0.55	5.03	0.90	3.47	9.41
Fert Appl (Liquid)	8R-38	MFWD 190	14,900	150	8	0.077	1.39	1.51	0.77	0.43	4.11	0.87	2.75	7.73
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	17,500	150	8	0.051	0.92	1.01	0.60	0.29	2.83	0.68	1.83	5.34
Fert Appl (Liquid)	12R-30	MFWD 225	17,900	150	8	0.078	1.40	1.81	0.93	0.55	4.72	1.05	3.52	9.30
Fert Appl (Liquid)	12R-38	MFWD 225	17,500	150	8	0.051	0.92	1.19	0.60	0.36	3.09	0.68	2.31	6.09
Field Cult & Inc	42'	MFWD 225	63,000	100	10	0.037	0.67	0.87	0.59	0.26	2.41	2.51	1.69	6.62
Field Cult & Inc	50'	MFWD 225	73,600	100	10	0.031	0.56	0.73	0.58	0.22	2.11	2.46	1.42	6.00
Field Cult & Inc Fld	24'	MFWD 170	32,100	100	10	0.066	1.18	1.15	0.53	0.34	3.21	2.24	2.15	7.61
Field Cult & Inc Fld	32'	MFWD 190	44,500	100	10	0.049	0.88	0.96	0.55	0.27	2.68	2.33	1.75	6.77
Field Cult & Inc Rdg	12'	2WD 150	17,500	100	10	0.132	2.37	2.04	0.57	0.44	5.43	2.44	2.68	10.56
Field Cultivate Fld	24'	MFWD 170	26,700	100	10	0.062	0.83	1.08	0.41	0.32	2.66	1.75	2.03	6.44
Field Cultivate Fld	32'	MFWD 190	39,100	100	10	0.046	0.62	0.91	0.45	0.26	2.25	1.92	1.65	5.83
Field Cultivate Fld	42'	MFWD 225	55,300	100	10	0.035	0.47	0.82	0.49	0.25	2.04	2.07	1.59	5.71
Field Cultivate Fld	50'	MFWD 225	64,300	100	10	0.029	0.40	0.69	0.48	0.21	1.78	2.02	1.33	5.15
Field Cultivate Rdg	12'	2WD 150	12,100	100	10	0.124	1.66	1.92	0.37	0.41	4.38	1.59	2.52	8.50
Grain Cart Corn	500 bu	MFWD 190	23,700	200	12	0.031	0.42	0.62	0.20	0.17	1.43	0.35	1.13	2.92
Grain Cart Corn	700 bu	MFWD 190	36,600	200	12	0.025	0.33	0.48	0.24	0.14	1.21	0.42	0.88	2.52
Grain Cart Corn	1000 bu	MFWD 225	48,600	200	12	0.025	0.33	0.57	0.32	0.17	1.42	0.57	1.12	3.11
Grain Cart Rice	500 bu	MFWD 190	23,700	200	12	0.062	0.83	1.22	0.40	0.35	2.81	0.69	2.21	5.72
Grain Cart Rice	700 bu	MFWD 190	36,600	200	12	0.055	0.73	1.07	0.54	0.30	2.66	0.94	1.94	5.56
Grain Cart Rice	1000 bu	MFWD 190	48,600	200	12	0.045	0.61	0.89	0.60	0.25	2.37	1.04	1.62	5.04
Grain Cart Soybean	500 bu	MFWD 190	23,700	200	12	0.025	0.34	0.49	0.16	0.14	1.14	0.28	0.90	2.33
Grain Cart Soybean	700 bu	MFWD 190	36,600	200	12	0.021	0.28	0.41	0.21	0.11	1.03	0.36	0.75	2.14
Grain Cart Soybean	1000 bu	MFWD 190	48,600	200	12	0.021	0.28	0.41	0.27	0.11	1.09	0.48	0.75	2.33
Grain Cart Wht/Sor	500 bu	MFWD 190	23,700	200	12	0.025	0.34	0.49	0.16	0.14	1.14	0.28	0.90	2.33
Grain Cart Wht/Sor	700 bu	MFWD 190	36,600	200	12	0.021	0.28	0.41	0.21	0.11	1.03	0.36	0.75	2.14
Grain Cart Wht/Sor	1000 bu	MFWD 190	48,600	200	12	0.021	0.28	0.41	0.27	0.11	1.09	0.48	0.75	2.33
Grain Drill	10'	2WD 130	26,500	150	8	0.188	4.23	2.52	1.87	0.56	9.20	3.58	3.41	16.19
Grain Drill	12'	2WD 130	23,500	150	8	0.157	3.52	2.10	1.38	0.47	7.49	2.64	2.84	12.98
Grain Drill	15'	MFWD 150	32,000	150	8	0.125	2.82	1.94	1.50	0.58	6.85	2.88	3.52	13.26
Grain Drill	20'	MFWD 170	38,600	150	8	0.094	2.11	1.65	1.36	0.48	5.62	2.61	3.08	11.31
Grain Drill	24'	MFWD 190	62,200	150	8	0.078	1.76	1.53	1.83	0.44	5.57	3.50	2.78	11.86
Grain Drill	30'	MFWD 225	70,300	150	8	0.062	1.41	1.45	1.65	0.44	4.97	3.16	2.82	10.96
Grain Drill	35'	MFWD 225	86,900	150	8	0.053	1.21	1.24	1.75	0.38	4.59	3.35	2.41	10.37
Grain Drill & Pre	10'	2WD 130	31,900	150	8	0.203	4.56	2.71	2.42	0.61	10.31	4.64	3.67	18.64
Grain Drill & Pre	12'	2WD 130	28,900	150	8	0.169	3.80	2.26	1.83	0.50	8.40	3.50	3.06	14.98
Grain Drill & Pre	15'	MFWD 150	37,400	150	8	0.135	3.04	2.09	1.89	0.63	7.66	3.63	3.79	15.08
Grain Drill & Pre	20'	MFWD 170	44,000	150	8	0.101	2.28	1.77	1.67	0.52	6.25	3.20	3.31	12.78
Grain Drill & Pre	24'	MFWD 190	67,600	150	8	0.084	1.90	1.65	2.14	0.47	6.17	4.10	2.99	13.27
Grain Drill & Pre	30'	MFWD 225	78,000	150	8	0.067	1.52	1.56	1.97	0.48	5.55	3.78	3.03	12.37
Grain Drill & Pre	35'	MFWD 225	94,600	150	8	0.058	1.30	1.34	2.05	0.41	5.11	3.93	2.60	11.65
Grain Drill & Pre T	8R-38	MFWD 225	45,000	150	8	0.062	1.41	1.45	1.06	0.44	4.37	2.02	2.82	9.22
Harrow - Rigid	21'	2WD 150	6,390	200	10	0.073	0.99	1.14	0.16	0.24	2.54	0.24	1.50	4.29
Harrow - Folding	24'	MFWD 190	12,400	200	10	0.064	0.86	1.26	0.28	0.36	2.77	0.42	2.29	5.49
Harrow - Folding	30'	MFWD 190	14,900	200	10	0.051	0.69	1.01	0.26	0.29	2.26	0.40	1.83	4.50
Harrow - Folding	40'	MFWD 190	17,000	200	10	0.038	0.52	0.75	0.23	0.21	1.72	0.34	1.37	3.45

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2016 (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 - Folding	48'	MFWD 225	22,600	200	10	0.032	0.43	0.74	0.25	0.23	1.66	0.38	1.45	3.50
Harrow - Rigid	13'	2WD 130	4,680	200	10	0.119	1.60	1.59	0.19	0.35	3.75	0.29	2.16	6.21
Header - Corn	6R-30	265 hp	45,500	300	8	0.170	2.28	4.64	1.93	5.58	14.45	2.91	22.04	39.41
Header - Corn	6R-38	265 hp	46,300	300	8	0.134	1.80	3.66	1.55	4.41	11.43	2.34	17.40	31.18
Header - Corn	8R-30	265 hp	58,100	300	8	0.127	1.71	3.48	1.85	4.19	11.24	2.79	16.53	30.56
Header - Corn	8R-38	325 hp	59,200	300	8	0.100	1.35	3.37	1.49	3.49	9.71	2.24	13.77	25.74
Header - Corn	12R-20	325 hp	77,300	300	8	0.127	1.71	4.27	2.46	4.41	12.86	3.71	17.42	34.00
Header - Corn	12R-30	325 hp	90,900	300	8	0.085	1.14	2.84	1.93	2.94	8.86	2.91	11.61	23.39
Header - Draper (CL)	25' Rigid	265 hp	57,700	300	8	0.203	2.72	5.54	2.68	6.66	17.61	4.20	26.29	48.10
Header - Draper (CL)	30' Rigid	325 hp	66,300	300	8	0.169	2.26	5.66	2.57	5.85	16.35	4.02	23.09	43.47
Header - Draper (CL)	36' Rigid	355 hp	70,400	300	8	0.141	1.88	5.15	2.27	4.87	14.19	3.56	19.24	37.00
Header - Draper (SL)	25' Rigid	325 hp	57,700	300	8	0.176	2.35	5.88	2.32	6.08	16.66	3.64	24.01	44.32
Header - Draper (SL)	30' Rigid	325 hp	66,300	300	8	0.146	1.96	4.90	2.22	5.07	14.17	3.48	20.01	37.67
Header - Draper (SL)	36' Rigid	355 hp	70,400	300	8	0.122	1.63	4.46	1.97	4.22	12.30	3.08	16.67	32.06
Header - Rice (CL)	25' Rigid	325 hp	64,400	300	8	0.253	3.40	8.49	4.08	8.77	24.76	6.14	34.63	65.54
Header - Rice (CL)	30' Rigid	325 hp	74,100	300	8	0.211	2.83	7.07	3.91	7.31	21.14	5.89	28.86	55.90
Header - Rice (SL)	25' Rigid	325 hp	64,400	300	8	0.220	2.94	7.36	3.54	7.60	21.45	5.32	30.02	56.80
Header - Rice (SL)	30' Rigid	325 hp	74,100	300	8	0.183	2.45	6.13	3.39	6.34	18.32	5.10	25.01	48.45
Header -RiceStrp (CL)	20'	265 hp	48,600	300	8	0.253	3.40	6.92	3.08	8.32	21.74	4.64	32.86	59.24
Header -RiceStrp (CL)	24'	325 hp	53,300	300	8	0.211	2.83	7.07	2.81	7.31	20.04	4.24	28.86	53.15
Header -RiceStrp (CL)	32'	325 hp	58,900	300	8	0.158	2.12	5.30	2.33	5.48	15.25	3.51	21.64	40.42
Header -RiceStrp (SL)	20'	265 hp	48,600	300	8	0.220	2.94	6.00	2.67	7.21	18.84	4.02	28.48	51.34
Header -RiceStrp (SL)	24'	325 hp	53,300	300	8	0.183	2.45	6.13	2.44	6.34	17.37	3.67	25.01	46.06
Header -RiceStrp (SL)	32'	325 hp	58,700	300	8	0.137	1.84	4.60	2.01	4.75	13.21	3.03	18.76	35.01
Header -Soybean	22' Flex	265 hp	31,300	300	8	0.116	1.55	3.16	0.90	3.80	9.44	1.36	15.03	25.83
Header -Soybean	25' Flex	325 hp	34,400	300	8	0.102	1.36	3.41	0.87	3.53	9.19	1.32	13.94	24.46
Header -Soybean	30' Flex	325 hp	30,200	300	8	0.085	1.14	2.84	0.64	2.94	7.57	0.96	11.61	20.16
Header -Soybean	35' Flex	355 hp	46,400	300	8	0.072	0.97	2.66	0.84	2.52	7.01	1.27	9.95	18.24
Header Wheat/Sorghum	22' Rigid	265 hp	18,200	300	8	0.116	1.55	3.16	0.52	3.80	9.06	0.79	15.03	24.88
Header Wheat/Sorghum	25' Rigid	325 hp	28,100	300	8	0.102	1.36	3.41	0.71	3.53	9.03	1.07	13.94	24.06
Header Wheat/Sorghum	30' Rigid	325 hp	31,000	300	8	0.085	1.14	2.84	0.65	2.94	7.59	0.99	11.61	20.20
Land Plane	50'x16'	MFWD 190	14,600	200	10	0.151	2.03	2.96	0.44	0.85	6.29	1.16	5.37	12.83
Levee Pull & Seed	8 Blade	MFWD 170	10,400	100	10	0.003	0.04	0.06	0.00	0.01	0.13	0.03	0.11	0.29
Levee Pull (1m/80a)	8 blade	MFWD 170	7,180	100	10	0.003	0.04	0.06	0.00	0.01	0.13	0.02	0.11	0.27
Levee Splitter (1/80)	32"	MFWD 150	7,180	100	10	0.004	0.05	0.06	0.00	0.01	0.14	0.03	0.11	0.29
Module Builder	4R-38(250)	MFWD 190	34,700	200	10	0.257	5.78	5.04	2.23	1.45	14.51	4.54	9.13	28.19
Module Builder	4R-38(350)	MFWD 190	34,700	200	10	0.257	5.78	5.04	2.23	1.45	14.51	4.54	9.13	28.19
Module Builder	4R2x1(350)	MFWD 190	34,700	200	10	0.172	3.87	3.37	1.49	0.96	9.70	3.03	6.10	18.84
Module Builder	6R-30(355)	MFWD 190	34,700	200	10	0.218	4.90	4.26	1.89	1.22	12.29	3.85	7.73	23.87
Module Builder	6R-38(355)	MFWD 190	34,700	200	10	0.172	3.87	3.37	1.49	0.96	9.70	3.03	6.10	18.84
NT Grain Drill	10'	2WD 130	34,200	150	8	0.235	5.29	3.15	3.02	0.70	12.18	5.78	4.26	22.23
NT Grain Drill	12'	2WD 130	41,600	150	8	0.163	3.67	2.19	2.55	0.49	8.91	4.88	2.96	16.76
NT Grain Drill	15'	MFWD 150	49,000	150	8	0.130	2.94	2.02	2.40	0.60	7.97	4.60	3.66	16.25
NT Grain Drill	20'	MFWD 170	65,200	150	8	0.098	2.20	1.71	2.40	0.50	6.83	4.59	3.20	14.63
NT Grain Drill	24'	MFWD 190	82,400	150	8	0.081	1.83	1.60	2.52	0.46	6.42	4.83	2.89	14.16
NT Grain Drill	30'	MFWD 225	94,200	150	8	0.065	1.47	1.51	2.31	0.46	5.76	4.42	2.93	13.12
NT Grain Drill & Pre	10'	2WD 130	39,600	150	8	0.211	4.75	2.83	3.14	0.63	11.36	6.00	3.83	21.20
NT Grain Drill & Pre	12'	2WD 130	47,000	150	8	0.176	3.95	2.35	3.10	0.53	9.95	5.94	3.19	19.09
NT Grain Drill & Pre	15'	MFWD 150	54,400	150	8	0.141	3.16	2.17	2.87	0.65	8.87	5.50	3.95	18.33
NT Grain Drill & Pre	20'	MFWD 170	70,600	150	8	0.105	2.37	1.85	2.80	0.54	7.57	5.35	3.45	16.38
NT Grain Drill & Pre	24'	MFWD 190	87,800	150	8	0.088	1.97	1.72	2.90	0.49	7.10	5.55	3.12	15.77
NT Grain Drill & Pre	30'	MFWD 225	102,000	150	8	0.070	1.58	1.63	2.69	0.50	6.41	5.15	3.16	14.73
NT Plant&Pre-Folding	8R-38	MFWD 170	51,600	150	8	0.083	1.87	1.46	1.61	0.43	5.39	3.09	2.73	11.21
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	84,200	150	8	0.055	1.25	0.97	1.75	0.28	4.27	3.36	1.81	9.45
NT Plant&Pre-Folding	12R-20	MFWD 190	73,000	150	8	0.105	2.37	2.06	2.89	0.59	7.93	5.53	3.74	17.21
NT Plant&Pre-Folding	12R-30	MFWD 190	75,900	150	8	0.070	1.58	1.37	2.00	0.39	5.36	3.83	2.49	11.70
NT Plant&Pre-Folding	12R-38	MFWD 190	84,200	150	8	0.055	1.25	1.08	1.75	0.31	4.41	3.36	1.97	9.74
NT Plant&Pre-Folding	16R-30	MFWD 190	102,000	150	8	0.052	1.18	1.03	2.02	0.29	4.54	3.86	1.87	10.28
NT Plant&Pre-Folding	23R-15	MFWD 190	136,000	150	8	0.073	1.64	1.43	3.74	0.41	7.24	7.16	2.60	17.01
NT Plant&Pre-Folding	24R-15	MFWD 225	143,000	150	8	0.070	1.58	1.63	3.78	0.50	7.50	7.23	3.16	17.89
NT Plant&Pre-Folding	24R-20	MFWD 190	158,000	150	8	0.052	1.18	1.03	3.13	0.29	5.65	5.99	1.87	13.51
NT Plant&Pre-Folding	24R-30	MFWD 190	185,000	150	8	0.035	0.79	0.68	2.44	0.19	4.12	4.67	1.24	10.05
NT Plant&Pre-Folding	31R-15	MFWD 225	156,000	150	8	0.054	1.22	1.26	3.19	0.38	6.08	6.11	2.45	14.64
NT Plant&Pre-Folding	32R-15	MFWD 225	175,000	150	8	0.052	1.18	1.22	3.47	0.37	6.25	6.63	2.37	15.27
NT Plant&Pre-Rigid	4R-30	2WD 130	27,100	150	8	0.211	4.75	2.83	2.14	0.63	10.36	4.11	3.83	18.31
NT Plant&Pre-Rigid	4R-38	2WD 130	29,700	150	8	0.166	3.74	2.22	1.85	0.50	8.32	3.54	3.01	14.89
NT Plant&Pre-Rigid	6R-30	MFWD 150	38,200	150	8	0.141	3.16	2.17	2.02	0.65	8.02	3.86	3.95	15.83
NT Plant&Pre-Rigid	6R-38	MFWD 150	34,200	150	8	0.111	2.50	1.71	1.42	0.51	6.16	2.73	3.11	12.01
NT Plant&Pre-Rigid	8R-30	MFWD 170	43,600	150	8	0.105	2.37	1.85	1.72	0.54	6.50	3.30	3.45	13.26
NT Plant&Pre-Rigid	8R-38	MFWD 170	41,300	150	8	0.083	1.87	1.46	1.29	0.43	5.06	2.47	2.73	10.27
NT Plant&Pre-Rigid	10R-30	MFWD 190	49,000	150	8	0.084	1.90	1.65	1.55	0.47	5.58	2.97	2.99	11.55
NT Plant&Pre-Rigid	11R-15	MFWD 170	53,000	150	8	0.143	3.23	2.51	2.86	0.74	9.35	5.47	4.70	19.52
NT Plant&Pre-Rigid	11R-20	MFWD 170	48,400	150	8	0.115	2.59	2.02	2.09	0.59	7.31	4.01	3.77	15.10
NT Plant&Pre-Rigid	12R-20	MFWD 190	53,000	150	8	0.105	2.37	2.06	2.10	0.59	7.14	4.02	3.74	14.90
NT Plant&Pre-Rigid	12R-30	MFWD 190	69,300	150	8	0.070	1.58	1.37	1.83	0.39	5.19	3.50	2.49	11.19
NT Plant&Pre-Rigid	13R-18/20	MFWD 225	59,300	150	8	0.097	2.18	2.25	2.16	0.69	7.30	4.14	4.37	15.82
NT Plant&Pre-Rigid	15R-15	MFWD 190	65,600	150	8	0.113	2.54	2.21	2.78	0.63	8.17	5.32	4.00	17.50
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	143,000	150	8	0.055	1.25	1.28	2.98	0.39	5.92	5.71	2.49	14.12

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2016 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	123,000	150	8	0.083	1.87	1.93	3.85	0.59	8.26	7.37	3.75	19.39
NT Plant-Folding	8R-38	MFWD 170	42,600	150	8	0.077	1.74	1.35	1.24	0.40	4.74	2.37	2.53	9.65
NT Plant-Folding	8R-38 2x1	MFWD 170	71,100	150	8	0.051	1.16	0.90	1.37	0.26	3.71	2.63	1.68	8.03
NT Plant-Folding	12R-20	MFWD 190	62,200	150	8	0.098	2.20	1.92	2.29	0.55	6.96	4.38	3.47	14.83
NT Plant-Folding	12R-30	MFWD 190	62,800	150	8	0.065	1.47	1.28	1.54	0.36	4.66	2.94	2.31	9.93
NT Plant-Folding	12R-38	MFWD 190	71,100	150	8	0.051	1.16	1.01	1.37	0.29	3.84	2.63	1.83	8.30
NT Plant-Folding	16R-30	MFWD 190	87,400	150	8	0.049	1.10	0.96	1.60	0.27	3.94	3.07	1.73	8.76
NT Plant-Folding	23R-15	MFWD 190	118,000	150	8	0.068	1.53	1.33	3.01	0.38	6.26	5.77	2.41	14.45
NT Plant-Folding	24R-15	MFWD 225	124,000	150	8	0.065	1.47	1.51	3.04	0.46	6.49	5.82	2.93	15.26
NT Plant-Folding	24R-20	MFWD 190	140,000	150	8	0.049	1.10	0.96	2.57	0.27	4.91	4.93	1.73	11.58
NT Plant-Folding	24R-30	MFWD 190	165,000	150	8	0.032	0.73	0.64	2.02	0.18	3.58	3.87	1.15	8.62
NT Plant-Folding	31R-15	MFWD 225	135,000	150	8	0.050	1.14	1.17	2.56	0.36	5.24	4.91	2.27	12.44
NT Plant-Folding	32R-15	MFWD 225	152,000	150	8	0.049	1.10	1.13	2.79	0.34	5.38	5.35	2.20	12.94
NT Plant-Rigid	4R-30	2WD 130	21,700	150	8	0.196	4.41	2.62	1.59	0.59	9.23	3.05	3.55	15.84
NT Plant-Rigid	4R-38	2WD 130	22,500	150	8	0.154	3.47	2.06	1.30	0.46	7.31	2.49	2.80	12.61
NT Plant-Rigid	6R-30	MFWD 150	30,100	150	8	0.130	2.94	2.02	1.47	0.60	7.05	2.82	3.66	13.54
NT Plant-Rigid	6R-38	MFWD 150	26,200	150	8	0.103	2.32	1.59	1.01	0.48	5.41	1.94	2.89	10.25
NT Plant-Rigid	8R-30	MFWD 170	34,600	150	8	0.098	2.20	1.71	1.27	0.50	5.70	2.43	3.20	11.35
NT Plant-Rigid	8R-38	MFWD 170	32,300	150	8	0.077	1.74	1.35	0.94	0.40	4.44	1.79	2.53	8.78
NT Plant-Rigid	10R-30	MFWD 190	39,100	150	8	0.078	1.76	1.53	1.15	0.44	4.89	2.20	2.78	9.88
NT Plant-Rigid	11R-15	MFWD 170	42,600	150	8	0.133	3.00	2.33	2.13	0.69	8.16	4.08	4.36	16.61
NT Plant-Rigid	11R-20	MFWD 170	38,100	150	8	0.107	2.41	1.87	1.53	0.55	6.37	2.93	3.50	12.81
NT Plant-Rigid	12R-20	MFWD 190	42,200	150	8	0.098	2.20	1.92	1.55	0.55	6.23	2.97	3.47	12.68
NT Plant-Rigid	12R-30	MFWD 190	56,200	150	8	0.065	1.47	1.28	1.37	0.36	4.49	2.63	2.31	9.45
NT Plant-Rigid	13R-18/20	MFWD 225	48,100	150	8	0.090	2.04	2.10	1.64	0.64	6.43	3.13	4.08	13.65
NT Plant-Rigid	15R-15	MFWD 190	53,500	150	8	0.105	2.35	2.05	2.10	0.59	7.11	4.03	3.72	14.86
NT Plant-TwinRow	12R-30/40	MFWD 225	124,000	150	8	0.051	1.16	1.19	2.40	0.36	5.13	4.59	2.31	12.04
NT Plant-TwinRow	8R-30/40	MFWD 225	110,000	150	8	0.077	1.74	1.79	3.20	0.55	7.29	6.12	3.48	16.90
Peanut Cond.& Lifter	6-Row	MFWD 190	12,900	300	20	0.100	1.34	1.95	0.21	0.56	4.07	0.31	3.54	7.93
Peanut Conditioner	6-Row	MFWD 190	14,900	300	20	0.100	1.34	1.95	0.29	0.56	4.15	0.32	3.54	8.02
Peanut Dig/Invertor	4R-30	MFWD 190	28,900	300	15	0.235	3.16	4.61	1.69	1.32	10.79	2.03	8.35	21.18
Peanut Dig/Invertor	4R-38	MFWD 190	28,900	300	15	0.186	2.49	3.64	1.33	1.04	8.52	1.60	6.59	16.72
Peanut Dig/Invertor	6R-38	MFWD 190	42,100	300	15	0.124	1.66	2.42	0.91	0.69	5.70	1.55	4.39	11.65
Peanut Dump Cart	6-Row	MFWD 190	46,900	300	20	0.310	4.15	6.06	0.84	1.74	12.80	3.44	10.98	27.23
Peanut Harvester	4R-30	MFWD 225	130,000	300	20	0.849	11.38	19.68	6.26	6.05	43.39	23.98	38.13	105.51
Peanut Harvester	4R-38	MFWD 225	130,000	300	20	0.934	12.52	21.64	6.88	6.65	47.71	27.59	41.93	117.24
Peanut Harvester	6R-38	MFWD 225	143,000	300	20	0.625	8.37	14.47	4.31	4.45	31.62	20.30	28.04	79.96
Peanut Lifter	6-Row	MFWD 225	6,300	300	20	0.100	1.34	2.31	0.13	0.71	4.49	0.13	4.48	9.12
Peanut Plt&Pre Fold.	12R-38	MFWD 190	78,800	150	8	0.080	1.80	1.57	2.37	0.45	6.20	4.54	2.84	13.60
Peanut Plt&Pre Rigid	8R-30	MFWD 190	40,000	150	8	0.152	3.43	2.98	2.29	0.85	9.57	4.38	5.41	19.36
Peanut Plt&Pre Rigid	8R-38	MFWD 190	37,700	150	8	0.120	2.71	2.36	1.70	0.67	7.46	3.26	4.27	15.00
Pipe Spool 160ac	1/4m roll	2WD 130	3,640	15	12	0.003	0.09	0.04	0.00	0.00	0.15	0.07	0.05	0.28
Pipe Trailer 1m/160a	30'	2WD 130	1,380	100	15	0.003	0.18	0.05	0.00	0.01	0.24	0.00	0.06	0.32
Plant & Pre-Folding	8R-38	MFWD 170	48,000	150	8	0.080	1.80	1.40	1.44	0.41	5.06	2.76	2.62	10.45
Plant & Pre-Folding	8R-38 2x1	MFWD 170	78,800	150	8	0.053	1.20	0.93	1.57	0.27	3.99	3.02	1.74	8.75
Plant & Pre-Folding	12R-20	MFWD 190	67,600	150	8	0.101	2.28	1.98	2.57	0.57	7.41	4.92	3.59	15.93
Plant & Pre-Folding	12R-30	MFWD 190	70,500	150	8	0.067	1.52	1.32	1.78	0.38	5.01	3.42	2.39	10.83
Plant & Pre-Folding	12R-38	MFWD 190	78,800	150	8	0.053	1.20	1.04	1.57	0.30	4.12	3.02	1.89	9.03
Plant & Pre-Folding	16R-30	MFWD 190	95,100	150	8	0.050	1.14	0.99	1.81	0.28	4.22	3.46	1.79	9.49
Plant & Pre-Folding	23R-15	MFWD 190	126,000	150	8	0.070	1.58	1.37	3.33	0.39	6.69	6.37	2.49	15.56
Plant & Pre-Folding	24R-15	MFWD 225	132,000	150	8	0.067	1.52	1.56	3.35	0.48	6.92	6.40	3.03	16.36
Plant & Pre-Folding	24R-20	MFWD 190	147,000	150	8	0.050	1.14	0.99	2.79	0.28	5.21	5.35	1.79	12.36
Plant & Pre-Folding	24R-30	MFWD 190	175,000	150	8	0.033	0.76	0.66	2.22	0.19	3.83	4.24	1.19	9.28
Plant & Pre-Folding	31R-15	MFWD 225	142,000	150	8	0.052	1.17	1.21	2.79	0.37	5.56	5.34	2.35	13.26
Plant & Pre-Folding	32R-15	MFWD 225	160,000	150	8	0.050	1.14	1.17	3.04	0.36	5.72	5.82	2.27	13.82
Plant & Pre-Rigid	4R-30	2WD 130	25,300	150	8	0.203	4.56	2.71	1.92	0.61	9.81	3.68	3.67	17.18
Plant & Pre-Rigid	4R-38	2WD 130	27,900	150	8	0.159	3.59	2.13	1.67	0.48	7.88	3.20	2.89	13.98
Plant & Pre-Rigid	6R-30	MFWD 150	35,500	150	8	0.135	3.04	2.09	1.80	0.63	7.56	3.44	3.79	14.80
Plant & Pre-Rigid	6R-38	MFWD 150	31,500	150	8	0.106	2.40	1.65	1.26	0.49	5.81	2.41	2.99	11.22
Plant & Pre-Rigid	8R-30	MFWD 170	40,000	150	8	0.101	2.28	1.77	1.52	0.52	6.10	2.91	3.31	12.33
Plant & Pre-Rigid	8R-38	MFWD 170	37,700	150	8	0.080	1.80	1.40	1.13	0.41	4.75	2.17	2.62	9.55
Plant & Pre-Rigid	10R-30	MFWD 190	44,500	150	8	0.081	1.82	1.58	1.35	0.45	5.22	2.59	2.87	10.69
Plant & Pre-Rigid	11R-15	MFWD 170	48,000	150	8	0.148	3.32	2.59	2.66	0.76	9.36	5.10	4.84	19.30
Plant & Pre-Rigid	11R-20	MFWD 170	43,500	150	8	0.110	2.49	1.94	1.81	0.57	6.82	3.46	3.62	13.90
Plant & Pre-Rigid	12R-20	MFWD 190	47,600	150	8	0.101	2.28	1.98	1.81	0.57	6.65	3.46	3.59	13.71
Plant & Pre-Rigid	12R-30	MFWD 190	63,900	150	8	0.067	1.52	1.32	1.62	0.38	4.84	3.10	2.39	10.34
Plant & Pre-Rigid	13R-18/20	MFWD 225	53,500	150	8	0.093	2.10	2.16	1.87	0.66	6.81	3.59	4.19	14.60
Plant & Pre-Rigid	15R-15	MFWD 190	58,900	150	8	0.108	2.43	2.12	2.39	0.61	7.57	4.58	3.84	16.00
Plant & Pre-TwinRow	12R-30/40	MFWD 225	132,000	150	8	0.053	1.20	1.23	2.64	0.38	5.46	5.05	2.39	12.92
Plant & Pre-TwinRow	8R-30/40	MFWD 225	116,000	150	8	0.080	1.80	1.85	3.49	0.57	7.72	6.67	3.60	18.00
Plant - Folding	8R-38	MFWD 170	42,600	150	8	0.074	1.67	1.30	1.19	0.38	4.55	2.27	2.43	9.26
Plant - Folding	8R-38 2x1	MFWD 170	71,100	150	8	0.049	1.11	0.86	1.32	0.25	3.56	2.53	1.62	7.71
Plant - Folding	12R-20	MFWD 190	62,200	150	8	0.094	2.11	1.84	2.19	0.53	6.69	4.20	3.33	14.23
Plant - Folding	12R-30	MFWD 190	62,800	150	8	0.062	1.41	1.22	1.48	0.35	4.47	2.83	2.22	9.53
Plant - Folding	12R-38	MFWD 190	71,100	150	8	0.049	1.11	0.97	1.32	0.27	3.68	2.53	1.75	7.97
Plant - Folding	16R-30	MFWD 190	87,400	150	8	0.047	1.05	0.92	1.54	0.26	3.79	2.95	1.66	8.41
Plant - Folding	23R-15	MFWD 190	118,000	150	8	0.065	1.47	1.28	2.89	0.36	6.01	5.54	2.31	13.87
Plant - Folding	24R-15	MFWD 225	124,000	150	8	0.062	1.41	1.45	2.92	0.44	6.23	5.59	2.82	14.65

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2016 (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	24R-20	MFWD 190	140,000	150	8	0.047	1.05	0.92	2.47	0.26	4.72	4.73	1.66	11.12
Plant - Folding	24R-30	MFWD 190	165,000	150	8	0.031	0.70	0.61	1.94	0.17	3.44	3.71	1.11	8.27
Plant - Folding	31R-15	MFWD 225	135,000	150	8	0.048	1.09	1.12	2.46	0.34	5.03	4.71	2.18	11.94
Plant - Folding	32R-15	MFWD 225	152,000	150	8	0.047	1.05	1.09	2.68	0.33	5.17	5.13	2.11	12.42
Plant - Rigid	4R-30	2WD 130	19,900	150	8	0.188	4.23	2.52	1.40	0.56	8.73	2.69	3.41	14.84
Plant - Rigid	4R-38	2WD 130	22,500	150	8	0.148	3.33	1.98	1.25	0.44	7.02	2.39	2.68	12.10
Plant - Rigid	6R-30	MFWD 150	30,100	150	8	0.125	2.82	1.94	1.41	0.58	6.76	2.71	3.52	13.00
Plant - Rigid	6R-38	MFWD 150	26,200	150	8	0.099	2.22	1.53	0.97	0.46	5.19	1.86	2.78	9.84
Plant - Rigid	8R-30	MFWD 170	34,600	150	8	0.094	2.11	1.65	1.22	0.48	5.48	2.34	3.08	10.90
Plant - Rigid	8R-38	MFWD 170	32,300	150	8	0.074	1.67	1.30	0.90	0.38	4.26	1.72	2.43	8.42
Plant - Rigid	10R-30	MFWD 190	39,100	150	8	0.075	1.69	1.47	1.10	0.42	4.69	2.11	2.67	9.48
Plant - Rigid	11R-15	MFWD 170	42,600	150	8	0.137	3.09	2.40	2.19	0.71	8.41	4.20	4.49	17.11
Plant - Rigid	11R-20	MFWD 170	38,100	150	8	0.103	2.31	1.80	1.47	0.53	6.12	2.81	3.36	12.30
Plant - Rigid	12R-20	MFWD 190	42,200	150	8	0.094	2.11	1.84	1.49	0.53	5.98	2.85	3.33	12.17
Plant - Rigid	12R-30	MFWD 190	56,200	150	8	0.062	1.41	1.22	1.32	0.35	4.31	2.53	2.22	9.08
Plant - Rigid	13R-18/20	MFWD 225	48,100	150	8	0.086	1.95	2.01	1.56	0.61	6.15	2.99	3.89	13.04
Plant - Rigid	15R-15	2WD 150	53,500	150	8	0.094	2.11	1.45	1.89	0.31	5.78	3.61	1.91	11.31
Plant - TwinRow	12R-30/40	MFWD 225	124,000	150	8	0.049	1.11	1.14	2.30	0.35	4.92	4.41	2.22	11.56
Plant - TwinRow	8R-30/40	MFWD 225	110,000	150	8	0.074	1.67	1.72	3.07	0.53	7.00	5.88	3.34	16.23
Roller/Cultipacker	12'	2WD 130	6,520	300	12	0.124	1.66	1.66	0.19	0.37	3.89	0.26	2.25	6.41
Roller/Cultipacker	20'	MFWD 150	17,000	300	12	0.074	1.00	1.15	0.29	0.34	2.80	0.41	2.09	5.30
Roller/Cultipacker	30'	MFWD 170	18,600	300	12	0.049	0.66	0.87	0.21	0.25	2.01	0.29	1.62	3.94
Roller/Cultipacker	38'	MFWD 225	19,700	300	12	0.039	0.52	0.91	0.18	0.28	1.89	0.25	1.76	3.91
Roller/Stubble	20'	2WD 50	13,500	300	12	0.074	1.00	0.38	0.23	0.04	1.66	0.32	0.25	2.25
Roller/Stubble	32'	MFWD 225	22,800	300	12	0.046	0.62	1.08	0.25	0.33	2.28	0.34	2.09	4.72
Rotary Cutter	7'	MFWD 130	4,100	185	10	0.168	2.25	2.25	0.55	0.61	5.67	0.39	3.67	9.74
Rotary Cutter	12'	2WD 150	12,000	185	10	0.098	1.31	1.51	0.95	0.33	4.11	0.67	1.99	6.78
Rotary Cutter-Flex	15'	MFWD 150	14,900	185	10	0.078	1.05	1.21	0.94	0.36	3.58	0.66	2.20	6.45
Rotary Cutter-Flex	20'	MFWD 150	19,300	185	10	0.058	0.78	0.90	0.92	0.27	2.89	0.64	1.65	5.19
Row Cond & Inc-Fold.	26'	MFWD 190	24,700	100	10	0.063	1.13	1.24	0.39	0.35	3.12	1.65	2.24	7.03
Row Cond & Inc-Fold.	38'	MFWD 225	32,200	100	10	0.043	0.77	1.00	0.34	0.30	2.44	1.47	1.94	5.86
Row Cond & Inc-Rigid	13'	2WD 130	13,100	100	10	0.126	2.27	1.69	0.41	0.38	4.77	1.75	2.29	8.82
Row Cond & Inc-Rigid	21'	2WD 170	16,500	100	10	0.078	1.40	1.37	0.32	0.29	3.40	1.36	1.83	6.60
Row Cond & Inc-Rigid	26'	MFWD 190	19,400	100	10	0.026	0.47	0.52	0.12	0.14	1.27	0.54	0.94	2.76
Row Cond Folding	26'	MFWD 225	19,300	100	10	0.059	0.80	1.38	0.28	0.42	2.89	1.21	2.67	6.79
Row Cond Folding	38'	MFWD 225	24,500	100	10	0.040	0.54	0.94	0.25	0.29	2.03	1.05	1.83	4.92
Row Cond Rigid	13'	2WD 130	7,700	100	10	0.119	1.60	1.59	0.22	0.35	3.78	0.97	2.16	6.92
Row Cond Rigid	21'	2WD 170	11,100	100	10	0.073	0.99	1.29	0.20	0.27	2.76	0.86	1.73	5.36
Row Cond Rigid	26'	MFWD 190	14,100	100	10	0.059	0.80	1.16	0.21	0.33	2.51	0.88	2.11	5.52
Row Cond./Roll-Fold.	26'	MFWD 190	28,200	160	10	0.072	0.96	1.41	0.50	0.40	3.29	1.34	2.55	7.18
Row Cond./Roll-Fold.	30'	MFWD 190	32,500	160	10	0.062	0.83	1.22	0.50	0.35	2.91	1.34	2.21	6.47
Row Cond./Roll-Fold.	40'	MFWD 225	33,800	160	10	0.046	0.62	1.08	0.39	0.33	2.44	1.04	2.10	5.59
Row Cond./Roll-Rigid	21'	MFWD 190	24,300	160	10	0.089	1.19	1.74	0.54	0.50	3.98	1.43	3.16	8.58
Row Cond./Roll-Rigid	26'	MFWD 190	25,100	160	10	0.072	0.96	1.41	0.45	0.40	3.23	1.19	2.55	6.98
Spin Spreader	5 ton	MFWD 190	12,200	100	8	0.042	0.94	0.82	0.28	0.23	2.29	0.57	1.49	4.36
Spray (ATV)	75"	800 CC	660	200	8	0.260	4.66	0.41	0.08	0.40	5.56	0.09	1.58	7.24
Spray (ATV)	12'/17'	800 CC	2,210	200	8	0.112	2.02	0.17	0.11	0.17	2.49	0.14	0.68	3.32
Spray (ATV)	20'	800 CC	1,920	200	8	0.084	1.51	0.13	0.07	0.13	1.85	0.09	0.51	2.46
Spray (Band)	27' Fold	MFWD 170	5,390	200	8	0.062	1.12	1.09	0.15	0.32	2.70	0.19	2.04	4.94
Spray (Band)	40' Fold	MFWD 170	7,700	200	8	0.042	0.75	0.74	0.15	0.21	1.87	0.18	1.38	3.43
Spray (Band)	50' Fold	MFWD 170	6,800	200	8	0.033	0.60	0.59	0.10	0.17	1.48	0.12	1.10	2.71
Spray (Band)	53' Fold	MFWD 170	9,300	200	8	0.031	0.57	0.55	0.13	0.16	1.43	0.16	1.04	2.64
Spray (Band)	60' Fold	MFWD 170	18,400	200	8	0.028	0.50	0.49	0.24	0.14	1.38	0.29	0.92	2.60
Spray (Bcast/HB)	13' Rigid	MFWD 150	5,380	200	8	0.130	2.33	2.01	0.32	0.60	5.27	0.39	3.64	9.32
Spray (Bcast/HB)	20' Rigid	MFWD 150	6,340	200	8	0.084	1.51	1.30	0.25	0.39	3.46	0.30	2.37	6.14
Spray (Bcast/HB)	27' Fold	MFWD 170	13,200	200	8	0.062	1.12	1.09	0.38	0.32	2.93	0.46	2.04	5.44
Spray (Bcast/HB)	27' Rigid	MFWD 170	7,680	200	8	0.062	1.12	1.09	0.22	0.32	2.77	0.27	2.04	5.09
Spray (Bcast/HB)	30' Fold	MFWD 170	20,300	200	8	0.056	1.01	0.98	0.53	0.29	2.82	0.64	1.84	5.31
Spray (Bcast/HB)	40' Fold	MFWD 170	21,000	200	8	0.042	0.75	0.74	0.41	0.21	2.13	0.50	1.38	4.01
Spray (Broadcast)	27'	MFWD 170	5,390	200	8	0.062	1.12	1.09	0.15	0.32	2.70	0.19	2.04	4.94
Spray (Broadcast)	40'	MFWD 170	7,700	200	8	0.042	0.75	0.74	0.15	0.21	1.87	0.18	1.38	3.43
Spray (Broadcast)	50'	MFWD 170	6,800	200	8	0.033	0.60	0.59	0.10	0.17	1.48	0.12	1.10	2.71
Spray (Broadcast)	53'	MFWD 170	9,300	200	8	0.031	0.57	0.55	0.13	0.16	1.43	0.16	1.04	2.64
Spray (Broadcast)	60'	MFWD 170	18,400	200	8	0.028	0.50	0.49	0.24	0.14	1.38	0.29	0.92	2.60
Spray (Direct/Hood)	8R-30	MFWD 170	18,000	200	8	0.084	1.51	1.48	0.71	0.43	4.15	0.85	2.76	7.77
Spray (Direct/Hood)	8R-38	MFWD 170	24,900	200	8	0.066	1.19	1.17	0.78	0.34	3.49	0.93	2.18	6.62
Spray (Direct/Hood)	12R-30	MFWD 170	26,100	200	8	0.056	1.01	0.98	0.69	0.29	2.98	0.83	1.84	5.65
Spray (Direct/Hood)	12R-38	MFWD 170	26,600	200	8	0.044	0.79	0.77	0.55	0.23	2.36	0.66	1.45	4.48
Spray (Direct/Layby)	8R-30	MFWD 170	9,000	200	8	0.084	1.51	1.48	0.35	0.43	3.79	0.42	2.76	6.98
Spray (Direct/Layby)	8R-38	MFWD 170	9,000	200	8	0.066	1.19	1.17	0.28	0.34	2.99	0.33	2.18	5.52
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	12,400	200	8	0.044	0.79	0.77	0.25	0.23	2.06	0.31	1.45	3.83
Spray (Direct/Layby)	12R-30	MFWD 170	12,500	200	8	0.056	1.01	0.98	0.33	0.29	2.62	0.39	1.84	4.86
Spray (Direct/Layby)	12R-38	MFWD 170	12,400	200	8	0.044	0.79	0.77	0.25	0.23	2.06	0.31	1.45	3.83
Spray (Direct/Layby)	16R-20	2WD 50	10,000	200	8	0.062	1.12	0.32	0.29	0.03	1.77	0.35	0.21	2.34
Spray (Levee Leaper)	50'	MFWD 225	13,500	200	8	0.033	0.60	0.78	0.21	0.24	1.84	0.25	1.51	3.62
Spray (Pull Type)	60'	MFWD 225	36,400	200	8	0.028	0.50	0.65	0.48	0.20	1.84	0.57	1.26	3.68
Spray (Pull Type)	80'	MFWD 225	50,100	200	8	0.021	0.37	0.48	0.49	0.15	1.51	0.59	0.94	3.06
Spray (Pull Type)	90'	2WD 50	50,800	200	8	0.018	0.33	0.09	0.44	0.01	0.89	0.53	0.06	1.49

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2016 (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 (Pull Type)	120'	MFWD 225	75,800	200	8	0.014	0.25	0.32	0.50	0.10	1.18	0.60	0.63	2.41
Spray (Ropewick)	20'	MFWD 190	3,440	200	8	0.084	1.51	1.65	0.13	0.47	3.78	0.16	2.99	6.94
Spray (Spot)	27'	MFWD 170	5,390	200	8	0.062	1.12	1.09	0.15	0.32	2.70	0.19	2.04	4.94
Spray (Spot)	40'	MFWD 170	7,700	200	8	0.042	0.75	0.74	0.15	0.21	1.87	0.18	1.38	3.43
Spray (Spot)	50'	MFWD 170	6,800	200	8	0.033	0.60	0.59	0.10	0.17	1.48	0.12	1.10	2.71
Spray (Spot)	53'	MFWD 170	9,300	200	8	0.031	0.57	0.55	0.13	0.16	1.43	0.16	1.04	2.64
Spray (Spot)	60'	MFWD 225	18,400	200	8	0.028	0.50	0.65	0.24	0.20	1.60	0.29	1.26	3.16
Stalk Shredder	14'	MFWD 150	13,100	200	10	0.117	1.57	1.81	1.35	0.54	5.29	0.81	3.30	9.41
Stalk Shredder Flex	20'	MFWD 150	30,200	200	10	0.082	1.10	1.27	2.18	0.38	4.94	1.31	2.31	8.57
Stalk Shredder-Flail	12'	MFWD 150	15,100	200	10	0.137	1.84	2.12	1.81	0.64	6.42	1.09	3.85	11.37
Stalk Shredder-Flail	15'	MFWD 150	20,200	200	10	0.110	1.47	1.69	1.94	0.51	5.62	1.17	3.08	9.88
Stalk Shredder-Flail	18'	MFWD 150	25,800	200	10	0.091	1.22	1.41	2.06	0.42	5.14	1.24	2.56	8.95
Stalk Shredder-Flail	20'	MFWD 150	27,300	200	10	0.082	1.10	1.27	1.97	0.38	4.73	1.18	2.31	8.23
Stalk Shredder-Flail	25'	MFWD 150	38,700	200	10	0.066	0.88	1.01	2.23	0.30	4.44	1.34	1.84	7.64
Strip Till	8R-38	MFWD 225	27,200	150	10	0.061	0.82	1.42	0.72	0.43	3.41	1.18	2.76	7.36
Strip Till	12R-30	MFWD 225	47,500	150	10	0.061	0.82	1.42	1.26	0.43	3.96	2.06	2.76	8.78
Strip Till	12R-40	MFWD 225	58,500	150	10	0.046	0.61	1.07	1.17	0.32	3.19	1.90	2.07	7.16
Subsoiler	3 shank	MFWD 190	3,550	100	15	0.204	2.73	3.99	0.24	1.14	8.12	0.59	7.23	15.96
Subsoiler	4 shank	MFWD 225	8,330	100	15	0.153	2.05	3.55	0.42	1.09	7.13	1.05	6.89	15.08
Subsoiler	5 shank	MFWD 225	13,800	100	15	0.122	1.63	2.83	0.56	0.87	5.90	1.39	5.48	12.79
Subsoiler low-till	4 shank	MFWD 225	12,000	100	15	0.153	2.05	3.55	0.61	1.09	7.32	1.51	6.89	15.73
Subsoiler low-till	6 shank	MFWD 225	16,600	100	15	0.102	1.36	2.36	0.56	0.72	5.02	1.39	4.58	11.01
Subsoiler low-till	8 shank	MFWD 225	22,200	100	15	0.076	1.02	1.77	0.56	0.54	3.90	1.40	3.43	8.74

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, 2016 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS					
Crop Oil Conc. (Pet.)	pt	3.86	Dithane F-45	qt	8.52
Crop Oil Conc. (Veg.)	pt	4.44	Dithane Rainshield	pt	3.96
Drift/Defoamer	pt	2.13	Enable 2F	oz	2.02
Dyne-A-Pak	pt	5.51	Headline EC	oz	3.79
MSO	pt	3.00	Headline SC	oz	3.69
Spreader Sticker	pt	3.54	Manzate 75 DF	lb	4.81
Surfactant	pt	5.35	Moncut 70 DF	lb	33.30
CLEANING					
Cleaning Peanuts	ton	18.00	Prevail	lb	28.50
CROP CONSULTANT					
Corn Consultant	acre	7.00	Propimax EC	pt	11.94
Cotton Consultant	acre	8.00	Prosaro	oz	2.77
Rice Consultant	acre	8.00	Provost	oz	2.34
Soybeans Consultant	acre	7.00	Quadris	oz	3.05
Wheat Consultant	acre	5.00	Quadris Top	oz	2.16
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	Quilt	pt	23.79
App Fert by Air (Mi)	appl	7.00	Quilt XCEL	pt	31.47
Custom Apply Fert	acre	7.00	Ridomil Gold	oz	6.41
CUSTOM LIME					
Lime (Spread)	ton	46.00	Ridomil Gold PC GR	lb	5.30
CUSTOM PLANT					
Custom Plant	acre	13.00	Rovral 4F	pt	11.14
Custom Plant Air	cwt	7.00	Stiletto	oz	0.58
CUSTOM SPRAY					
App by Air (2 gal)	appl	4.00	Stratego 250EC	pt	25.58
App by Air (3 gal)	appl	5.00	Stratego YLD	oz	5.04
App by Air (5 gal)	appl	6.50	Tilt 3.6 EC	oz	0.86
App by Air (10 gal)	appl	8.75	Tilt/ Bravo SE	oz	0.38
Custom Spray Ground	acre	7.50	Uniform	oz	4.89
Custom Spray Self Pr	acre	6.25	Vitavax RTU-Thiram	oz	0.40
Custom Spray Tractor	acre	7.75	GINNING		
DRYING					
Dry Corn	bu	0.19	Gin & Haul	lb	0.11
Dry Grain Sorghum	cwt	0.25	GROWTH REGULATORS		
Dry Peanuts	ton	24.00	Early Harvest PGR	oz	1.55
Dry Rice	bu	0.40	Mepex	oz	0.10
ERADICATION FEE					
Eradication	acre	1.00	Mepex Gin Out	oz	0.12
FERTILIZERS					
Amm Sulfate (21% N)	cwt	17.25	Mepichlor 4.2%	oz	0.11
Boron Plus	pt	4.24	Mepiquat	oz	0.11
Fert 10-34-0	cwt	32.50	Mepiquat Extra	oz	0.11
Fert 41-0-0-4	cwt	20.50	Pentia	pt	5.94
Lime	ton	36.00	Pix Plus	oz	0.19
NBPT	pt	9.88	Stance	oz	1.18
Phosphorus (46% P2O5)	cwt	25.00	HARVEST AIDS		
Potash (60% K2O)	cwt	21.27	Adios	oz	1.27
Sulfur 90%	lb	0.34	Aim 2EC	oz	5.46
Sulfur Plus	pt	2.62	Ammonium Sulfate	lb	0.24
SuperMax AMS	pt	2.67	CottonQuik	pt	5.01
UAN (32% N)	cwt	15.95	Def 6	pt	8.25
UAN + Sulfur (28%)	cwt	16.33	Def/Folex	pt	9.99
UAN 1%	pt	0.00	Defol 3	gal	3.45
Urea, Solid (46% N)	cwt	20.83	Defol 5	gal	6.55
Zinc Plus	pt	3.00	Dropp SC	oz	1.60
FUNGICIDES					
Abound	pt	32.53	ET	pt	23.98
Alfa Guard	lb	1.62	Ethephon 6E	pt	4.69
Allegiance Flowable	pt	55.70	Finish 6	pt	8.93
Apron Maxx RTA	oz	0.86	First Pick	pt	3.99
Apron Maxx RTA+Moly	pt	16.84	Flash	pt	4.68
Apron XL LS	oz	6.98	Folex 6EC	pt	9.92
Artisan	oz	1.02	Freefall SC	oz	1.30
Bravo Ultrex	lb	6.93	Ginstar EC	pt	30.60
Bravo Weather Stick	pt	5.27	Gramoxone SL	oz	0.31
Captan 50 WP	lb	4.03	Paraquat	oz	0.27
Cotton Seed Trt.	acre	20.00	Prep	pt	3.32
CruiserMaxx	oz	4.44	Sharpen	oz	6.23
			Sodium Chlorate 3L	gal	3.50
			Sodium Chlorate 5L	gal	5.57
			TDZ SC	oz	0.79
			Thidiazuron 4lb	oz	0.79
			Tribufos 6lb	pt	9.90
			Vacate	oz	1.17
			HAULING		
			Haul Corn	bu	0.23

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2016(continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Haul Peanuts	ton	14.50	Guardsman Max	pt	7.22
Haul Rice	bu	0.35	Halex GT	pt	7.22
Haul Sorghum	bu	0.25	Halomax	oz	19.26
Haul Soybeans	bu	0.27	Harmony Extra SG TS	oz	29.95
Haul Wheat	bu	0.26	Harmony Extra TotSol	oz	13.51
HERBICIDES			Harness XTRA	pt	6.59
2,4-D Amine 4	pt	2.44	Ignite 280	pt	8.93
2,4-D Weedar 64	pt	2.44	Impact	oz	23.92
AAtrex 4L	pt	2.46	Karmex XP	lb	6.05
AAtrex NINE-O	lb	3.60	Lariat	qt	7.58
Accent Q	oz	32.40	Laudis	oz	5.74
Aim 2EC	oz	5.46	Layby Pro	qt	14.18
Assure II	oz	0.75	Leadoff	oz	5.73
Atrazine 4L	pt	2.03	Lexar	pt	7.56
Atrazine 90DF	lb	3.60	Liberty 280	oz	0.68
Axial XL	oz	1.10	Linex 4L	pt	10.56
Axiom 68DF	oz	0.23	Londax 60DF	oz	17.13
Banvel	pt	11.98	Lorox 50DF	lb	23.52
Basagran	pt	12.90	Metribuzin 75	lb	13.38
Basis	oz	12.93	MSMA 6.6	pt	3.38
Beyond	oz	4.43	MSMA6 Plus	pt	3.23
Bicep II Magnum	qt	10.37	Newpath 2SL	oz	3.68
Bicep Lite Magnum	pt	6.88	Osprey	oz	3.47
Blazer Ultra	pt	9.79	Outlook	pt	16.80
Bolero 8EC	pt	7.67	Paraquat	oz	0.31
Boundary 6.5 EC	pt	10.18	Parazone 3SL	oz	0.28
Bullet	pt	3.79	Parrot 4L	pt	2.74
Butyrac 175 (2,4-D)	pt	3.11	Peak Accu Pak	oz	15.75
Butyrac 200 (2,4-DB)	pt	4.05	Permit 75 DF	oz	20.73
Cadre	oz	4.21	Poast 1.53	pt	12.41
Callisto 4SC	oz	6.02	Poast Plus	pt	8.60
Canopy 75%	oz	2.70	PowerFlex HL	lb	115.78
Canopy EX	oz	7.97	Prefix	pt	5.81
Caparol 4L	pt	4.02	Prowl 3.3 EC	pt	5.62
Capreno	oz	6.73	Prowl H20	pt	5.95
Clarity	pt	12.89	Pursuit 2S	oz	3.40
Classic	oz	16.85	Python WDG	oz	13.56
Clearpath	lb	55.90	Quinstar	lb	49.16
Clincher SF	oz	2.34	Raptor	oz	4.37
Cobra 2EC	oz	1.68	RealmQ	oz	5.00
Command 3ME	pt	19.38	Reflex 2LC	pt	6.30
Corvus	oz	6.82	Regiment 80WP	oz	43.75
Cotoran 4L	pt	5.99	Remedy Ultra	pt	9.10
Cotton Pro	pt	3.53	Resolve SG	oz	8.58
Credit Extra	pt	2.07	Resource .86EC	pt	29.40
Dicamba	pt	10.83	Ricebeaux	pt	5.53
Direx 4L	pt	4.41	RicePro	pt	4.87
Diuron 4L	pt	4.15	Riceshot	pt	4.14
Diuron 80 DF	lb	6.20	Ricestar HT	pt	23.54
Diuron 80%	lb	6.20	Roundup Power Max	oz	0.19
Dual II Magnum	pt	13.99	Roundup PowerMax	pt	2.99
Dual Magnum	pt	13.49	Roundup WeatherMax	oz	0.27
Duet	pt	5.09	Roundup WeatherMax	pt	4.33
Envoke	oz	96.59	Salvo	pt	5.13
Evik DF 80W	lb	11.22	Scepter 70 DG	oz	4.52
Expert	pt	4.19	Select Max	pt	12.35
Facet L	pt	14.60	Sequence	pt	5.87
Finesse	oz	15.66	Sharpen	oz	6.07
First Rate	oz	41.50	Simazine 4L	pt	3.17
Flexstar	pt	8.30	Stalwart	pt	6.39
Fultime	pt	5.25	Stam 80 EDF	lb	9.50
Fusilade DX	oz	1.08	Stam M4	qt	7.78
Fusion	pt	26.89	Staple LX	oz	8.83
Glyphos	pt	1.80	Steadfast	oz	12.32
Glyphos Xtra	pt	2.25	Storm	pt	11.88
Glyphosate 3lbs a.e	pt	2.26	Strada WG	oz	6.91
Glyphosate 3lbs a.e	oz	0.14	Strongarm	oz	51.19
Glystar Plus	pt	2.45	Superwham	qt	9.18
Goal 2XL	pt	9.83	Suprend	lb	13.49
Gramoxone SL 2.0	oz	0.31	Surpass EC	qt	28.06
Grandstand R	qt	29.47			(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2016 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Synchrony XP	oz	12.49	Montana	oz	1.00
Touchdown Total	qt	7.13	Mustang Max	oz	1.45
Treflan 4D	pt	3.40	Nuprid 4F	oz	0.51
Tricor DF	lb	15.55	Oberon 4 SC	pt	59.84
Trifluralin 4EC	pt	3.60	Orthene 97S	lb	9.10
Valor SX	oz	7.10	PennCap-M	pt	6.71
Valor XLT	oz	5.11	Pounce 25WP	lb	15.16
Verdict	oz	1.77	Prevathon	oz	1.25
Zorial Rapid 80DF	lb	14.10	Prolex	oz	2.62
INOCULANT			Provoke	oz	1.75
Optimize LIFT	oz	0.54	Radiant	oz	6.73
Vault	oz	1.73	Respect .8EC	pt	34.00
INSECTICIDES			Sevin 4F	pt	5.89
Abamectin .15EC	oz	0.72	Sevin 80S	lb	7.40
Acephate 90%	lb	7.45	Sevin XLR Plus	qt	12.50
Acephate 90SP	lb	7.45	Sivanto	oz	2.40
Acramite-4SC	oz	1.88	Steward	pt	36.33
Admire Pro	oz	2.95	Thimet 20-G Lock N L	lb	3.65
Asana .66 XL	oz	0.57	Thionex 3 EC	pt	4.17
Aztec 2.1% G	lb	3.77	Thionex 50W	lb	10.45
Baythroid XL	oz	2.55	Tracer 4SC	oz	9.73
Bidrin 8WM	oz	1.09	Transform WG	oz	7.74
Bidrin XP	oz	1.05	Vydate C-LV	oz	0.93
Bifenthrin	oz	0.89	Zeal Miticid I	oz	15.89
Bifenture 2EC	pt	16.10	Zephyr	oz	0.85
Brigade EC	pt	16.12	IRRIGATION SUPPLIES		
Brigade WSB	lb	22.47	Roll-Out Pipe	ft	0.26
Capture LFR	oz	2.53	SEED/PLANTS		
Carbaryl 4L	pt	5.28	Corn Seed B2RR	thous	3.27
Carbine 50WG	oz	5.93	Corn Seed Conv.	thous	2.61
Centric 40WG	oz	4.95	Corn Seed LLRRBT	thous	3.64
Comite 1l	pt	8.98	Corn Seed RR2	thous	3.02
Confirm 2F	oz	2.11	Corn Seed VT3	thous	3.52
Counter 15G	lb	4.51	Corn Seed VT3Pro	thous	3.52
Cruiser Maxx Rice	lbseed	0.13	Cotton Seed B2RF	thous	0.72
Curacron 8E	pt	10.75	Cotton Seed LLB2	thous	1.25
Cypermethrin	oz	0.55	Cotton Seed W	thous	0.74
Denim 0.16 EC	pt	32.63	Cotton Seed WRF	thous	0.86
Diamond .83EC	pt	21.28	Peanut Seed	lb	0.70
Diamond .83EC	oz	1.33	Rice Clearfield	lb	1.05
Dimethoate 4E	pt	6.51	Rice Clearfield Hyb	lb	5.82
Dimilin 2L	oz	2.22	Rice Conv. Hybrid	lb	5.91
Dipel DF	lb	15.09	Rice Seed (Levees)	lb	0.43
Dipel ES	pt	5.42	Rice Seed CF (Levees)	lb	1.05
Discipline 2 EC	oz	0.98	Rice Seed CFH (Levee)	lb	5.82
Endigo ZC	pt	27.76	Rice Seed Conv.	lb	0.43
Epi-Mek	pt	15.41	Sorghum Concept	lb	2.29
Fanfare 2EC	oz	0.93	Sorghum Concept+ Po	lb	3.60
Force 3G	lb	6.90	Soybean Seed LL	lb	1.15
Gaucho 600	oz	5.26	Soybean Seed RR2	lb	1.13
Hero	pt	25.34	Wheat Seed Private	lb	0.38
Imidan 70 WSB	oz	0.75	SOIL TEST		
Incidental Pest Trt	acre	12.00	Soil Test	acre	10.00
Incidental Pest Trt	acre	8.00	SURVEY & MARK LEVEES		
Intrepid 2F	oz	2.01	Survey & Mark Levees	acre	4.50
Intruder 70WSP	oz	9.83	TECHNOLOGY FEE		
Karate Z	oz	2.80	B2 Cot Tech Fee	thous	0.76
Kelthane MF 4EC	pt	5.00	B2 Cot Tech Fee	cap/ac	31.91
Lambda	oz	1.13	B2EF Cot Tech Fee	thous	1.63
Lannate LV	pt	11.08	B2EF Cot Tech Fee	cap/ac	68.62
Lannate SP	oz	2.13	B2RF Cot Tech Fee	thous	1.49
Larvin 3.2	oz	0.63	B2RF Cot Tech Fee	cap/ac	62.69
Leverage 2.7	oz	2.12	LLB2 Cot Tech Fee	thous	0.76
Lorsban 15G	lb	2.35	RF Cot Tech Fee	thous	1.04
Lorsban 4E	pt	6.02	RF Cot Tech Fee	cap/ac	43.66
Macho	oz	1.03	WRF Cot Tech Fee	thous	1.45
Malathion 5E	pt	4.54	WS Cot Tech Fee	thous	0.41
Malathion 8E	pt	5.33	WS Cotton Tech Fee	cap/ac	24.00
Monitor 4	pt	16.50			

Appendix Table 5. Estimated fuel prices
and interest rates, Mississippi, 2016

ITEM NAME	UNIT	PRICE
		dollars
Diesel Fuel (DI) Price	(\$/gal):	2.00
Gasoline (GA) Price.	(\$/gal):	2.25
LP Gas (LP) Price.	(\$/gal):	1.70
Short-term Interest Rate	(%):	4.50
Intermediate-term Interest Rate.	(%):	5.00

Appendix Table 6. Labor types, wage rates and unallocated labor
multipliers for crop enterprises, Mississippi, 2016

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	13.40
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, 2016

Crop	uni	Futures Contract Month	Futures Contract Price ^a	Basis ^b	Forward Contract Price	Loan Rate ^d	Budget Price ^e
Corn	bu	Dec '16	4.15	-0.27	3.88	2.10	3.88
Cotton Lint	lb	Dec '16	0.6198	-0.0233	0.596 ^f	0.52	0.60
Cottonseed	lb						0.114 ^f
Grain Sorghum	bu				3.69	2.02	3.69
Peanuts	ton				375.00	355.00	375.00
Soybeans	bu	Nov '16	8.91	+0.07	8.98	5.21	8.98
Rice	bu	Nov '16	5.94	-0.54	5.40	2.98	5.40
Wheat	bu	Jul '16	5.31	-0.20	5.11	2.72	5.11

^a Average of the daily closing futures contract prices during first six trading days in October 2015 for the stated contract months.

^b Basis is the Greenville, MS cash price minus the futures contract price for the stated contract. The reported basis is a daily average from 2009 to 2015. All basis values are composed of the typical harvest timeframe for each crop according to USDA, progress reports.

Sources: Arkansas Farm Bureau Commodity Report and Daily Grain Report, Mississippi Department of Ag-USDA Market News.

^c The forward contract price for cotton, soybeans, corn, wheat, and rice is the futures contract price. The forward contract price for grain sorghum is 95% of the forward contract price for corn. The price for peanuts is estimated from a poll of industry peanut buyers.

^d Average Mississippi loan rate for the 2015 crop year for soybeans, corn, grain sorghum, and wheat. Loan rate for cotton. 2015 Mississippi farm stored loan rate for long grain rice. 2015 national average loan rate for peanuts.

^e Price used in the 2016 MAFES Planning Budgets.

^f Cottonseed price is the marketing year average price averaged over the years 2011-2015.

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, 2016

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			0.02	1.09	1.09
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				0.21	11.44	45.07
Well & Pump, 1/4 CP	each			2.89				0.05	2.94	8.54
Engine, 1/4 CP, 65	each									9.93
June Irr. 3app@.75"	ac-in		6.72	1.39				0.15	8.26	8.26
July Irr. 4app@.75"	ac-in		8.96	1.86				0.16	10.98	10.98
Aug Irr. 3app@.75"	ac-in		6.72	1.39				0.09	8.20	8.20
TOTALS		0.00	22.40	18.76	1.84	0.00	0.69		43.69	63.54
										107.23

Note: Cost of production estimates are based on 2015 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, 2016

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'		0.74	0.32	0.51			0.07	1.64	1.63	3.27
Set Up Engine											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Ditcher (1m/160a)			0.13	0.05	0.13				0.31	0.19	0.50
Roll-Out Pipe	ft	8.58						0.13	8.71		8.71
Lay Roll-out Pipe											
Pipe Spool 160ac	1/4m roll		0.17	0.07	0.40			0.01	0.65	0.52	1.17
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		0.25	0.10	0.59			0.01	0.95	0.77	1.72
Land Forming (\$390)	each									31.93	31.93
Well & Pump, Furrow	each			2.44				0.04	2.48	7.21	9.69
Main Line Pipe	each									4.98	4.98
Engine, RPF, Corn	each									8.38	8.38
1st June Irrigation	ac-in		5.30	0.98				0.09	6.37		6.37
2nd June Irrigation	ac-in		5.30	0.98				0.09	6.37		6.37
3rd June Irrigation	ac-in		5.30	0.98				0.09	6.37		6.37
July Irrigation	ac-in		5.30	0.98				0.07	6.35		6.35
TOTALS		8.58	22.49	6.90	4.59	0.00	0.63	43.19	55.61	98.80	

Note: Cost of production estimates are based on 2015 input prices.

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