SOYBEANS
2016
PLANNING BUDGETS

Mississippi State University
Department of Agricultural Economics
Budget Report 2015-02

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.

Special appreciation is expressed to producers who provided information on crop practices used. Appreciation also is expressed to farm supply dealers, equipment dealers, custom operators, and chemical companies who provided prices for crop production inputs. The Mississippi Agricultural Statistics Service is commended for its excellence in collecting price and production practice data.

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

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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:

$$RPH = \frac{RLC \; x \; RP}{THL}$$

$$RPA = RPH \; x \; PR$$

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

$$CRCPY = [(RLC - SV) \; x \; CRF]$$

$$+ (SV \; x \; IIR)$$

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:

$$CRCPH = \frac{CRCPY}{HAU}$$

$$CRCPA = CRCPH \times PR$$

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, 9, and 10. 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
Soybeans, early-planted, RR, stale seedbed, 12R 30"
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	4.0000	26.00	
HARVEST AIDS					
Paraquat	oz	0.27	16.0000	4.32	
Sodium Chlorate 3L	gal	3.50	1.0000	3.50	
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	25.00	0.8700	21.75	
Potash (60% K2O)	cwt	21.27	1.3300	28.29	
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	
Quadris Top	oz	2.16	8.0000	17.28	
HERBICIDES					
Glyphosate 3lbs a.e	pt	2.26	7.0000	15.82	
2,4-D Amine 4	pt	2.44	2.0000	4.88	
Select Max	pt	12.35	1.0000	12.35	
Valor SX	oz	7.10	2.0000	14.20	
Boundary 6.5 EC	pt	10.18	2.0000	20.36	
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	
Prefix	pt	5.81	2.0000	11.62	
INSECTICIDES					
Acephate 90SP	lb	7.45	0.7500	5.59	
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	
ADJUVANTS					
Surfactant	pt	5.35	1.1000	5.89	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	
HAULING					
Haul Soybeans	bu	0.27	42.0000	11.34	
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	
CROP CONSULTANT					
Soybeans Consultant	acre	7.00	1.0000	7.00	
INOCULANT					
Vault	oz	1.73	2.0000	3.46	
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	
OPERATOR LABOR					
Tractors	hour	13.40	0.3302	4.43	
Harvesters	hour	13.40	0.1021	1.37	
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	
UNALLOCATED LABOR	hour	13.41	0.3892	5.22	
DIESEL FUEL					
Tractors	gal	2.00	3.8252	7.65	
Harvesters	gal	2.00	1.3935	2.79	
REPAIR & MAINTENANCE					
Implements	acre	4.84	1.0000	4.84	
Tractors	acre	2.34	1.0000	2.34	
Harvesters	acre	3.35	1.0000	3.35	
INTEREST ON OP. CAP.	acre	8.97	1.0000	8.97	

TOTAL DIRECT EXPENSES				359.44	
FIXED EXPENSES					
Implements	acre	9.71	1.0000	9.71	
Tractors	acre	14.82	1.0000	14.82	
Harvesters	acre	13.23	1.0000	13.23	

TOTAL FIXED EXPENSES				37.76	

TOTAL SPECIFIED EXPENSES				397.20	

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 1.B Summary of estimated costs and returns per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	42.0000	377.16	_____
TOTAL INCOME				377.16	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	7.82	1.0000	7.82	_____
FERTILIZERS	acre	50.04	1.0000	50.04	_____
FUNGICIDES	acre	24.38	1.0000	24.38	_____
HERBICIDES	acre	94.11	1.0000	94.11	_____
INSECTICIDES	acre	5.59	1.0000	5.59	_____
SEED/PLANTS	acre	56.50	1.0000	56.50	_____
ADJUVANTS	acre	5.89	1.0000	5.89	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	15.18	1.0000	15.18	_____
CROP CONSULTANT	acre	7.00	1.0000	7.00	_____
INOCULANT	acre	3.46	1.0000	3.46	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
OPERATOR LABOR	hour	13.40	0.4324	5.80	_____
UNALLOCATED LABOR	hour	13.41	0.3892	5.22	_____
DIESEL FUEL	gal	2.00	5.2188	10.44	_____
REPAIR & MAINTENANCE	acre	10.53	1.0000	10.53	_____
INTEREST ON OP. CAP.	acre	8.97	1.0000	8.97	_____
TOTAL DIRECT EXPENSES				359.44	_____
RETURNS ABOVE DIRECT EXPENSES				17.72	_____
TOTAL FIXED EXPENSES				37.76	_____
TOTAL SPECIFIED EXPENSES				397.20	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-20.04	_____

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 1.C Estimated resource use for field operations, per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
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				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3300				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus(46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Disk Harrow	24'	MFWD 225	0.081	1.00	Oct		0.08	0.08	0.08	0.07
Field Cultivate Fld	24'	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	pt					3.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Valor SX	oz					2.0000				
Surfactant	pt					0.4000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Apr		0.06	0.06	0.13	0.06
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Vault	oz					2.0000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Quadris Top	oz					8.0000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Paraquat	oz					16.0000				
Sodium Chlorate 3L	gal					1.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09
Haul Soybeans	bu					42.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Sep		0.02	0.02	0.02	0.01
TOTALS							0.43	0.43	0.52	0.38

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 1.D Estimated costs for field operations, per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	DIRECT COST: OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
		dollars								
Soil Test	acre	3.30					0.15	3.45		3.45
Subsoiler	3 shank		0.95	0.34	1.04		0.10	2.43	1.95	4.38
Lime (Spread)	ton	15.18					0.68	15.86		15.86
Custom Apply Fert	acre	7.00					0.32	7.32		7.32
Phosphorus(46% P2O5)	cwt	21.75					0.98	22.73		22.73
Potash (60% K2O)	cwt	28.29					1.27	29.56		29.56
Disk Harrow	24'		1.90	1.59	2.09		0.25	5.83	5.81	11.64
Field Cultivate Fld	24'		1.44	0.86	1.58		0.17	4.05	4.55	8.60
App by Air (5 gal)	appl	6.50					0.19	6.69		6.69
Glyphosate 3lbs a.e	pt	6.78					0.20	6.98		6.98
2,4-D Amine 4	pt	4.88					0.15	5.03		5.03
Select Max	pt	12.35					0.37	12.72		12.72
Valor SX	oz	14.20					0.43	14.63		14.63
Surfactant	pt	2.14					0.06	2.20		2.20
Plant & Pre-Folding	12R-30		1.57	2.27	2.34		0.14	6.32	6.46	12.78
Soybean Seed RR2	lb	56.50					1.27	57.77		57.77
CruiserMaxx	oz	7.10					0.16	7.26		7.26
Vault	oz	3.46					0.08	3.54		3.54
Boundary 6.5 EC	pt	20.36					0.46	20.82		20.82
Gramoxone SL 2.0	oz	14.88					0.33	15.21		15.21
Surfactant	pt	2.14					0.05	2.19		2.19
Soybeans Consultant	acre	7.00					0.13	7.13		7.13
Spray (Broadcast)	60'		0.65	0.44	0.85		0.04	1.98	1.56	3.54
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
Prefix	pt	11.62					0.22	11.84		11.84
Spray (Broadcast)	60'		0.65	0.44	0.85		0.04	1.98	1.56	3.54
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Quadris Top	oz	17.28					0.19	17.47		17.47
Surfactant	pt	0.54					0.01	0.55		0.55
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Acephate 90SP	lb	5.59					0.04	5.63		5.63
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Paraquat	oz	4.32					0.03	4.35		4.35
Sodium Chlorate 3L	gal	3.50					0.03	3.53		3.53
Surfactant	pt	1.07					0.01	1.08		1.08
Header -Soybean	25' Flex		2.79	4.23	2.60		0.04	9.66	14.55	24.21
Haul Soybeans	bu	11.34					0.04	11.38		11.38
Grain Cart Soybean	700 bu		0.49	0.36	0.54		0.01	1.40	1.32	2.72
TOTALS		317.61	10.44	10.53	11.89	0.00	8.97	359.44	37.76	397.20

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 1.E Estimated monthly income and expense flows per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
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	377.16
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	6.50	13.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.82	0.00
FERTILIZERS	50.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	0.00	17.28	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	38.21	0.00	35.24	20.66	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	0.00	0.00	5.59	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	56.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.14	0.00	2.14	0.00	0.00	0.54	1.07	0.00
CUSTOM FERTILIZE	7.00	0.00	0.00	0.00	0.00	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	11.34
CUSTOM LIME	15.18	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
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.46	0.00	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	4.71	0.00	0.00	0.00	0.00	0.00	2.34	1.70	0.00	0.00	0.00	3.14
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	4.29	0.00	0.00	0.00	0.00	0.00	1.57	1.30	0.00	0.00	0.00	3.28
REPAIR & MAINTENANCE	2.79	0.00	0.00	0.00	0.00	0.00	2.27	0.88	0.00	0.00	0.00	4.59
INTEREST ON OP. CAP.	3.92	0.00	0.00	0.00	1.40	0.00	2.49	0.59	0.00	0.27	0.21	0.09
TOTAL DIRECT EXPENSES	91.23	0.00	0.00	0.00	48.25	0.00	113.11	32.13	0.00	24.59	27.69	22.44
NET INCOME	-91.23	0.00	0.00	0.00	-48.25	0.00	-113.11	-32.13	0.00	-24.59	-27.69	354.72
NET INCOME TO DATE	-91.23	-91.23	-91.23	-91.23	-139.48	-139.48	-252.59	-284.72	-284.72	-309.31	-337.00	17.72

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre

* Lease costs are based on hourly usage costs.

Table 1.F Estimated returns for various price/yield combinations, per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-212	-202	-193	-184	-174	-165	-155	-146	-136	-127	-118
			-250	-240	-231	-221	-212	-202	-193	-184	-174	-165	-155
60	25.20	bu	-185	-173	-162	-151	-139	-128	-117	-105	-94	-83	-72
			-222	-211	-200	-188	-177	-166	-155	-143	-132	-121	-109
70	29.40	bu	-158	-144	-131	-118	-105	-92	-78	-65	-52	-39	-26
			-195	-182	-169	-156	-142	-129	-116	-103	-90	-76	-63
80	33.60	bu	-130	-115	-100	-85	-70	-55	-40	-25	-10	4	19
			-168	-153	-138	-123	-108	-93	-78	-63	-47	-32	-17
90	37.80	bu	-103	-86	-69	-52	-35	-18	-1	15	32	49	66
			-141	-124	-107	-90	-73	-56	-39	-22	-5	11	28
100	42.00	bu	-76	-57	-38	-19	-1	17	36	55	74	93	112
			-114	-95	-76	-57	-38	-20	-1	17	36	55	74
110	46.20	bu	-49	-28	-7	12	33	54	75	95	116	137	158
			-87	-66	-45	-24	-4	16	37	58	78	99	120
120	50.40	bu	-22	0	22	45	68	90	113	136	158	181	204
			-60	-37	-14	7	30	53	75	98	121	143	166
130	54.60	bu	4	29	53	78	102	127	151	176	201	225	250
			-32	-8	16	40	65	89	114	138	163	187	212
140	58.80	bu	32	58	84	111	137	164	190	216	243	269	296
			-5	20	47	73	99	126	152	179	205	231	258
150	63.00	bu	59	87	115	144	172	200	228	257	285	313	342
			21	49	77	106	134	162	191	219	247	275	304

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
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Furrow irrigated, 9 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	4.0000	26.00	
HARVEST AIDS					
Paraquat	oz	0.27	16.0000	4.32	
Sodium Chlorate 3L	gal	3.50	1.0000	3.50	
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	25.00	0.8700	21.75	
Potash (60% K2O)	cwt	21.27	1.3300	28.29	
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	
Quadris Top	oz	2.16	8.0000	17.28	
HERBICIDES					
Glyphosate 3lbs a.e	pt	2.26	7.0000	15.82	
2,4-D Amine 4	pt	2.44	2.0000	4.88	
Select Max	pt	12.35	1.0000	12.35	
Valor SX	oz	7.10	2.0000	14.20	
Boundary 6.5 EC	pt	10.18	2.0000	20.36	
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	
Prefix	pt	5.81	2.0000	11.62	
INSECTICIDES					
Acephate 90SP	lb	7.45	0.7500	5.59	
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.26	33.0000	8.58	
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	
ADJUVANTS					
Surfactant	pt	5.35	1.1000	5.89	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	
HAULING					
Haul Soybeans	bu	0.27	60.0000	16.20	
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	
CROP CONSULTANT					
Soybeans Consultant	acre	7.00	1.0000	7.00	
INOCULANT					
Vault	oz	1.73	2.0000	3.46	
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	
OPERATOR LABOR					
Tractors	hour	13.40	0.4713	6.33	
Harvesters	hour	13.40	0.1021	1.37	
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3000	2.73	
Implements	hour	9.06	0.0625	0.57	
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	
UNALLOCATED LABOR	hour	13.40	0.4454	5.97	
DIESEL FUEL					
Tractors	gal	2.00	5.1917	10.39	
Harvesters	gal	2.00	1.3935	2.79	
Roll-Out Pipe Irr.	gal	2.00	7.3316	14.67	
REPAIR & MAINTENANCE					
Implements	acre	5.50	1.0000	5.50	
Tractors	acre	3.13	1.0000	3.13	
Harvesters	acre	3.35	1.0000	3.35	
Roll-Out Pipe Irr.	acre	6.22	1.0000	6.22	
INTEREST ON OP. CAP.	acre	9.70	1.0000	9.70	
TOTAL DIRECT EXPENSES				404.64	
FIXED EXPENSES					
Implements	acre	11.96	1.0000	11.96	
Tractors	acre	19.70	1.0000	19.70	
Harvesters	acre	13.23	1.0000	13.23	
Roll-Out Pipe Irr.	acre	52.19	1.0000	52.19	
TOTAL FIXED EXPENSES				97.08	
TOTAL SPECIFIED EXPENSES				501.72	

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 2.B Summary of estimated costs and returns per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	60.0000	538.80	
TOTAL INCOME				538.80	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	
HARVEST AIDS	acre	7.82	1.0000	7.82	
FERTILIZERS	acre	50.04	1.0000	50.04	
FUNGICIDES	acre	24.38	1.0000	24.38	
HERBICIDES	acre	94.11	1.0000	94.11	
INSECTICIDES	acre	5.59	1.0000	5.59	
IRRIGATION SUPPLIES	acre	8.58	1.0000	8.58	
SEED/PLANTS	acre	56.50	1.0000	56.50	
ADJUVANTS	acre	5.89	1.0000	5.89	
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	
HAULING	acre	16.20	1.0000	16.20	
CUSTOM LIME	acre	15.18	1.0000	15.18	
CROP CONSULTANT	acre	7.00	1.0000	7.00	
INOCULANT	acre	3.46	1.0000	3.46	
SOIL TEST	acre	3.30	1.0000	3.30	
HAND LABOR	hour	9.06	0.0959	0.87	
IRRIGATE LABOR	hour	9.06	0.3625	3.30	
OPERATOR LABOR	hour	13.40	0.5735	7.70	
UNALLOCATED LABOR	hour	13.40	0.4454	5.97	
DIESEL FUEL	gal	2.00	13.9169	27.85	
REPAIR & MAINTENANCE	acre	18.20	1.0000	18.20	
INTEREST ON OP. CAP.	acre	9.70	1.0000	9.70	
TOTAL DIRECT EXPENSES				404.64	
RETURNS ABOVE DIRECT EXPENSES				134.16	
TOTAL FIXED EXPENSES				97.08	
TOTAL SPECIFIED EXPENSES				501.72	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				37.08	

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 2.C Estimated resource use for field operations, per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Furrow irrigated, 9 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				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3300				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus(46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Disk Harrow	24'	MFWD 225	0.081	1.00	Oct		0.08	0.08	0.08	0.07
Field Cultivate Fld	24'	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
Bed/Lister-Roll-Fold	12R-30	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	pt					3.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
Valor SX	oz					2.0000				
Surfactant	pt					0.4000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Apr		0.06	0.06	0.13	0.06
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Vault	oz					2.0000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Quadris Top	oz					8.0000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Paraquat	oz					16.0000				
Sodium Chlorate 3L	gal					1.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09
Haul Soybeans	bu					60.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Sep		0.02	0.02	0.02	0.01
Roll-Out Pipe Irr.	acre				Jul	1.0000	0.07	0.07	0.44	
TOTALS							0.57	0.57	1.03	0.44

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 2.D Estimated costs for field operations, per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	DIRECT COST: OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
		dollars								
Soil Test	acre	3.30					0.15	3.45		3.45
Subsoiler	3 shank		0.95	0.34	1.04		0.10	2.43	1.95	4.38
Lime (Spread)	ton	15.18					0.68	15.86		15.86
Custom Apply Fert	acre	7.00					0.32	7.32		7.32
Phosphorus(46% P2O5)	cwt	21.75					0.98	22.73		22.73
Potash (60% K2O)	cwt	28.29					1.27	29.56		29.56
Disk Harrow	24'		1.90	1.59	2.09		0.25	5.83	5.81	11.64
Field Cultivate Fld	24'		1.44	0.86	1.58		0.17	4.05	4.55	8.60
Bed/Lister-Roll-Fold	12R-30		1.45	0.91	1.59		0.18	4.13	4.02	8.15
App by Air (5 gal)	appl	6.50					0.19	6.69		6.69
Glyphosate 3lbs a.e	pt	6.78					0.20	6.98		6.98
2,4-D Amine 4	pt	4.88					0.15	5.03		5.03
Select Max	pt	12.35					0.37	12.72		12.72
Valor SX	oz	14.20					0.43	14.63		14.63
Surfactant	pt	2.14					0.06	2.20		2.20
Plant & Pre-Folding	12R-30		1.57	2.27	2.34		0.14	6.32	6.46	12.78
Soybean Seed RR2	lb	56.50					1.27	57.77		57.77
CruiserMaxx	oz	7.10					0.16	7.26		7.26
Vault	oz	3.46					0.08	3.54		3.54
Boundary 6.5 EC	pt	20.36					0.46	20.82		20.82
Gramoxone SL 2.0	oz	14.88					0.33	15.21		15.21
Surfactant	pt	2.14					0.05	2.19		2.19
soybeans Consultant	acre	7.00					0.13	7.13		7.13
Spray (Broadcast)	60'		0.65	0.44	0.85		0.04	1.98	1.56	3.54
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
Prefix	pt	11.62					0.22	11.84		11.84
Spray (Broadcast)	60'		0.65	0.44	0.85		0.04	1.98	1.56	3.54
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Quadris Top	oz	17.28					0.19	17.47		17.47
Surfactant	pt	0.54					0.01	0.55		0.55
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Acephate 90SP	lb	5.59					0.04	5.63		5.63
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Paraquat	oz	4.32					0.03	4.35		4.35
Sodium Chlorate 3L	gal	3.50					0.03	3.53		3.53
Surfactant	pt	1.07					0.01	1.08		1.08
Header -Soybean	25' Flex		2.79	4.23	2.60		0.04	9.66	14.55	24.21
Haul Soybeans	bu	16.20					0.06	16.26		16.26
Grain Cart Soybean	700 bu		0.49	0.36	0.54		0.01	1.40	1.32	2.72
Roll-Out Pipe Irr.	acre	8.58	15.96	6.76	4.36		0.53	36.19	55.30	91.49
TOTALS		331.05	27.85	18.20	17.84	0.00	9.70	404.64	97.08	501.72

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 2.E Estimated monthly income and expense flows per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Furrow irrigated, 9 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	538.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	6.50	13.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.82	0.00
FERTILIZERS	50.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	0.00	17.28	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	38.21	0.00	35.24	20.66	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	0.00	0.00	5.59	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	0.00	56.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.14	0.00	2.14	0.00	0.00	0.54	1.07	0.00
CUSTOM FERTILIZE	7.00	0.00	0.00	0.00	0.00	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	16.20
CUSTOM LIME	15.18	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
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.46	0.00	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	6.81	0.00	0.00	0.00	0.00	0.00	2.34	1.93	2.80	0.23	0.00	3.73
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	6.48	0.00	0.00	0.00	0.00	0.00	1.57	1.30	10.08	4.89	0.00	3.53
REPAIR & MAINTENANCE	4.02	0.00	0.00	0.00	0.00	0.00	2.27	0.88	5.08	1.26	0.00	4.69
INTEREST ON OP. CAP.	4.17	0.00	0.00	0.00	1.40	0.00	2.49	0.59	0.39	0.34	0.21	0.11
TOTAL DIRECT EXPENSES	97.00	0.00	0.00	0.00	48.25	0.00	113.11	32.36	26.93	31.04	27.69	28.26
NET INCOME	-97.00	0.00	0.00	0.00	-48.25	0.00	-113.11	-32.36	-26.93	-31.04	-27.69	510.54
NET INCOME TO DATE	-97.00	-97.00	-97.00	-97.00	-145.25	-145.25	-258.36	-290.72	-317.65	-348.69	-376.38	134.16

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre* Lease costs are based on hourly usage costs.

Table 2.F Estimated returns for various price/yield combinations, per acre
Soybeans, early-planted, RR, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	30.00	bu	-194	-180	-167	-154	-140	-127	-113	-100	-86	-73	-59
			-291	-278	-264	-251	-237	-224	-210	-197	-183	-170	-156
60	36.00	bu	-155	-139	-123	-107	-91	-74	-58	-42	-26	-10	5
			-252	-236	-220	-204	-188	-171	-155	-139	-123	-107	-91
70	42.00	bu	-116	-98	-79	-60	-41	-22	-3	15	33	52	71
			-213	-195	-176	-157	-138	-119	-100	-81	-63	-44	-25
80	48.00	bu	-78	-56	-35	-13	8	29	51	72	94	115	137
			-175	-153	-132	-110	-88	-67	-45	-24	-2	18	40
90	54.00	bu	-39	-15	9	33	57	81	106	130	154	178	203
			-136	-112	-87	-63	-39	-15	9	33	57	81	106
100	60.00	bu	-0	26	53	80	107	134	161	188	214	241	268
			-97	-70	-43	-16	10	37	64	90	117	144	171
110	66.00	bu	38	67	97	127	156	186	216	245	275	304	334
			-58	-29	0	30	59	89	118	148	178	207	237
120	72.00	bu	77	109	141	174	206	238	270	303	335	367	400
			-20	12	44	76	109	141	173	206	238	270	303
130	78.00	bu	115	150	185	220	255	290	325	360	395	431	466
			18	53	88	123	158	193	228	263	298	333	368
140	84.00	bu	154	192	230	267	305	343	380	418	456	494	531
			57	95	132	170	208	246	283	321	359	396	434
150	90.00	bu	193	233	274	314	355	395	435	476	516	557	597
			96	136	177	217	257	298	338	379	419	459	500

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
Soybeans, May-planted, RR, 12R 30"
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	4.7500	30.88	
HARVEST AIDS					
Paraquat	oz	0.27	16.0000	4.32	
Sodium Chlorate 3L	gal	3.50	1.0000	3.50	
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	25.00	0.8700	21.75	
Potash (60% K2O)	cwt	21.27	1.3300	28.29	
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	
Quadris Top	oz	2.16	8.0000	17.28	
HERBICIDES					
Boundary 6.5 EC	pt	10.18	2.0000	20.36	
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	
Glyphosate 3lbs a.e	pt	2.26	4.0000	9.04	
Prefix	pt	5.81	2.0000	11.62	
INSECTICIDES					
Acephate 90SP	lb	7.45	0.7500	5.59	
Prevathon	oz	1.25	10.5000	13.13	
Incidental Pest Trt	acre	8.00	1.0000	8.00	
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	
ADJUVANTS					
Surfactant	pt	5.35	0.7000	3.74	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	
HAULING					
Haul Soybeans	bu	0.27	40.0000	10.80	
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	
CROP CONSULTANT					
Soybeans Consultant	acre	7.00	1.0000	7.00	
INOCULANT					
Vault	oz	1.73	2.0000	3.46	
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	
OPERATOR LABOR					
Tractors	hour	13.40	0.3507	4.70	
Harvesters	hour	13.40	0.1021	1.37	
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	
UNALLOCATED LABOR	hour	13.41	0.4076	5.47	
DIESEL FUEL					
Tractors	gal	2.00	4.0622	8.12	
Harvesters	gal	2.00	1.3935	2.79	
REPAIR & MAINTENANCE					
Implements	acre	5.09	1.0000	5.09	
Tractors	acre	2.49	1.0000	2.49	
Harvesters	acre	3.35	1.0000	3.35	
INTEREST ON OP. CAP.	acre	7.99	1.0000	7.99	
TOTAL DIRECT EXPENSES				344.97	
FIXED EXPENSES					
Implements	acre	10.24	1.0000	10.24	
Tractors	acre	15.74	1.0000	15.74	
Harvesters	acre	13.23	1.0000	13.23	
TOTAL FIXED EXPENSES				39.21	
TOTAL SPECIFIED EXPENSES				384.18	

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 3.B Summary of estimated costs and returns per acre
Soybeans, May-planted, RR, 12R 30"
Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	40.0000	359.20	
TOTAL INCOME				359.20	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	30.88	1.0000	30.88	
HARVEST AIDS	acre	7.82	1.0000	7.82	
FERTILIZERS	acre	50.04	1.0000	50.04	
FUNGICIDES	acre	24.38	1.0000	24.38	
HERBICIDES	acre	55.90	1.0000	55.90	
INSECTICIDES	acre	26.72	1.0000	26.72	
SEED/PLANTS	acre	56.50	1.0000	56.50	
ADJUVANTS	acre	3.75	1.0000	3.75	
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	
HAULING	acre	10.80	1.0000	10.80	
CUSTOM LIME	acre	15.18	1.0000	15.18	
CROP CONSULTANT	acre	7.00	1.0000	7.00	
INOCULANT	acre	3.46	1.0000	3.46	
SOIL TEST	acre	3.30	1.0000	3.30	
HAND LABOR	hour	9.06	0.0959	0.87	
OPERATOR LABOR	hour	13.40	0.4529	6.07	
UNALLOCATED LABOR	hour	13.41	0.4076	5.47	
DIESEL FUEL	gal	2.00	5.4558	10.91	
REPAIR & MAINTENANCE	acre	10.93	1.0000	10.93	
INTEREST ON OP. CAP.	acre	7.99	1.0000	7.99	
TOTAL DIRECT EXPENSES				344.97	
RETURNS ABOVE DIRECT EXPENSES				14.23	
TOTAL FIXED EXPENSES				39.21	
TOTAL SPECIFIED EXPENSES				384.18	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-24.98	

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 3.C Estimated resource use for field operations, per acre
Soybeans, May-planted, RR, 12R 30"
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	Nov	0.3300				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Nov		0.04	0.04	0.04	0.03
Disk Harrow	24'	MFWD 225	0.081	0.25	Nov		0.02	0.02	0.02	0.01
Lime (Spread)	ton			0.33	Nov	0.3300				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus(46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Disk Harrow	24'	MFWD 225	0.081	1.00	Apr		0.08	0.08	0.08	0.07
Soybeans Consultant	acre			1.00	May	1.0000				
Field Cultivate Fld	24'	MFWD 225	0.062	1.00	May		0.06	0.06	0.06	0.05
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Vault	oz					2.0000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Quadris Top	oz					8.0000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			0.75	Aug	0.7500				
Prevathon	oz					10.5000				
Incidental Pest				1.00	Sep					
App by Air (5 gal)	appl					1.0000				
Incidental Pest Trt	acre					1.0000				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Paraquat	oz					16.0000				
Sodium Chlorate 3L	gal					1.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.09
Haul Soybeans	bu					40.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.45	0.45	0.54	0.40

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 3.D Estimated costs for field operations, per acre
Soybeans, May-planted, RR, 12R 30"
Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	DIRECT COST: OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
		dollars								
Soil Test	acre	3.30					0.15	3.45		3.45
Subsoiler	3 shank		0.95	0.34	1.04		0.10	2.43	1.95	4.38
Disk Harrow	24'		0.47	0.40	0.52		0.06	1.45	1.45	2.90
Lime (Spread)	ton	15.18					0.68	15.86		15.86
Custom Apply Fert	acre	7.00					0.32	7.32		7.32
Phosphorus(46% P2O5)	cwt	21.75					0.98	22.73		22.73
Potash (60% K2O)	cwt	28.29					1.27	29.56		29.56
Disk Harrow	24'		1.90	1.59	2.09		0.15	5.73	5.81	11.54
soybeans Consultant	acre	7.00					0.16	7.16		7.16
Field Cultivate Fld	24'		1.44	0.86	1.58		0.09	3.97	4.55	8.52
Plant & Pre-Folding	12R-30		1.57	2.27	2.34		0.14	6.32	6.46	12.78
Soybean Seed RR2	lb	56.50					1.27	57.77		57.77
CruiserMaxx	oz	7.10					0.16	7.26		7.26
Vault	oz	3.46					0.08	3.54		3.54
Boundary 6.5 EC	pt	20.36					0.46	20.82		20.82
Gramoxone SL 2.0	oz	14.88					0.33	15.21		15.21
Surfactant	pt	2.14					0.05	2.19		2.19
Spray (Broadcast)	60'		0.65	0.44	0.85		0.04	1.98	1.56	3.54
Glyphosate 3lbs a.e	pt	4.52					0.10	4.62		4.62
Prefix	pt	11.62					0.26	11.88		11.88
Spray (Broadcast)	60'		0.65	0.44	0.85		0.04	1.98	1.56	3.54
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
App by Air (5 gal)	appl	6.50					0.10	6.60		6.60
Quadris Top	oz	17.28					0.26	17.54		17.54
Surfactant	pt	0.54					0.01	0.55		0.55
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Acephate 90SP	lb	5.59					0.06	5.65		5.65
App by Air (5 gal)	appl	4.88					0.05	4.93		4.93
Prevathon	oz	13.13					0.15	13.28		13.28
Incidental Pest										
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Incidental Pest Trt	acre	8.00					0.06	8.06		8.06
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Paraquat	oz	4.32					0.03	4.35		4.35
Sodium Chlorate 3L	gal	3.50					0.03	3.53		3.53
Surfactant	pt	1.07					0.01	1.08		1.08
Header -Soybean	25' Flex		2.79	4.23	2.60		0.04	9.66	14.55	24.21
Haul Soybeans	bu	10.80					0.04	10.84		10.84
Grain Cart Soybean	700 bu		0.49	0.36	0.54		0.01	1.40	1.32	2.72
TOTALS		302.73	10.91	10.93	12.41	0.00	7.99	344.97	39.21	384.18

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust,but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 3.E Estimated monthly income and expense flows per acre
Soybeans, May-planted, RR, 12R 30"
Delta Area, Mississippi, 2016

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
	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	359.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	11.38	13.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.82	0.00
FERTILIZERS	50.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	17.28	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	51.38	4.52	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	0.00	18.72	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	56.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	0.54	0.00	1.07	0.00
CUSTOM FERTILIZE	7.00	0.00	0.00	0.00	0.00	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	10.80
CUSTOM LIME	15.18	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	7.00	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.46	0.00	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	1.56	0.00	0.00	0.00	0.00	2.09	4.77	0.85	0.00	0.00	0.00	3.14
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	1.42	0.00	0.00	0.00	0.00	1.90	3.66	0.65	0.00	0.00	0.00	3.28
REPAIR & MAINTENANCE	0.74	0.00	0.00	0.00	0.00	1.59	3.57	0.44	0.00	0.00	0.00	4.59
INTEREST ON OP. CAP.	3.56	0.00	0.00	0.00	0.00	0.15	3.14	0.12	0.37	0.33	0.23	0.09
TOTAL DIRECT EXPENSES	82.80	0.00	0.00	0.00	0.00	5.73	142.72	6.58	24.69	30.43	30.12	21.90
NET INCOME	-82.80	0.00	0.00	0.00	0.00	-5.73	-142.72	-6.58	-24.69	-30.43	-30.12	337.30
NET INCOME TO DATE	-82.80	-82.80	-82.80	-82.80	-82.80	-88.53	-231.25	-237.83	-262.52	-292.95	-323.07	14.23

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

* Lease costs are based on hourly usage costs.

Table 3.F Estimated returns for various price/yield combinations, per acre
Soybeans, May-planted, RR, 12R 30"
Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-204	-195	-186	-177	-168	-159	-150	-141	-133	-124	-115
			-244	-235	-226	-217	-208	-199	-190	-181	-172	-163	-154
60	24.00	bu	-178	-168	-157	-146	-135	-125	-114	-103	-92	-82	-71
			-218	-207	-196	-185	-175	-164	-153	-142	-131	-121	-110
70	28.00	bu	-153	-140	-127	-115	-102	-90	-77	-65	-52	-39	-27
			-192	-179	-167	-154	-142	-129	-116	-104	-91	-79	-66
80	32.00	bu	-127	-112	-98	-84	-69	-55	-41	-26	-12	2	16
			-166	-152	-137	-123	-109	-94	-80	-65	-51	-37	-22
90	36.00	bu	-101	-85	-69	-52	-36	-20	-4	11	27	44	60
			-140	-124	-108	-92	-75	-59	-43	-27	-11	4	21
100	40.00	bu	-75	-57	-39	-21	-3	14	32	50	68	86	104
			-114	-96	-78	-60	-42	-24	-7	10	28	46	64
110	44.00	bu	-49	-29	-10	9	29	49	68	88	108	128	147
			-88	-69	-49	-29	-9	9	29	49	69	88	108
120	48.00	bu	-23	-2	19	40	62	83	105	127	148	170	191
			-63	-41	-19	1	23	44	66	87	109	130	152
130	52.00	bu	1	25	48	72	95	118	142	165	188	212	235
			-37	-13	9	32	56	79	102	126	149	172	196
140	56.00	bu	27	52	78	103	128	153	178	203	229	254	279
			-11	13	38	64	89	114	139	164	189	214	240
150	60.00	bu	53	80	107	134	161	188	215	242	269	296	323
			14	41	68	95	122	149	176	203	230	256	283

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
Soybeans, May-planted, RR, 12R 30"
Flood irrigated, 13.5 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	5.0000	32.50	_____
HARVEST AIDS					
Paraquat	oz	0.27	16.0000	4.32	_____
Sodium Chlorate 3L	gal	3.50	1.0000	3.50	_____
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	25.00	0.8700	21.75	_____
Potash (60% K2O)	cwt	21.27	1.3300	28.29	_____
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	_____
Quadris Top	oz	2.16	8.0000	17.28	_____
HERBICIDES					
Boundary 6.5 EC	pt	10.18	2.0000	20.36	_____
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	_____
Glyphosate 3lbs a.e	pt	2.26	4.0000	9.04	_____
Prefix	pt	5.81	2.0000	11.62	_____
INSECTICIDES					
Acephate 90SP	lb	7.45	0.7500	5.59	_____
Prevathon	oz	1.25	14.0000	17.50	_____
Incidental Pest Trt	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	_____
ADJUVANTS					
Surfactant	pt	5.35	0.7000	3.74	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	_____
HAULING					
Haul Soybeans	bu	0.27	53.0000	14.31	_____
SURVEY & MARK LEVEES					
Survey & Mark Levees	acre	4.50	0.5000	2.25	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	_____
CROP CONSULTANT					
Soybeans Consultant	acre	7.00	1.0000	7.00	_____
INOCULANT					
Vault	oz	1.73	2.0000	3.46	_____
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.5741	7.71	_____
Harvesters	hour	13.40	0.1021	1.37	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR	hour	13.42	0.4261	5.72	_____
DIESEL FUEL					
Tractors	gal	2.00	5.2180	10.43	_____
Harvesters	gal	2.00	1.3935	2.79	_____
Contour Flood Irr.	gal	2.00	10.9974	21.99	_____
REPAIR & MAINTENANCE					
Implements	acre	6.02	1.0000	6.02	_____
Tractors	acre	2.90	1.0000	2.90	_____
Harvesters	acre	3.35	1.0000	3.35	_____
Contour Flood Irr.	acre	12.71	1.0000	12.71	_____
INTEREST ON OP. CAP.	acre	8.82	1.0000	8.82	_____

TOTAL DIRECT EXPENSES				401.98	_____
FIXED EXPENSES					
Implements	acre	12.84	1.0000	12.84	_____
Tractors	acre	18.12	1.0000	18.12	_____
Harvesters	acre	13.23	1.0000	13.23	_____
Contour Flood Irr.	acre	39.18	1.0000	39.18	_____

TOTAL FIXED EXPENSES				83.37	_____

TOTAL SPECIFIED EXPENSES				485.35	_____

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 4.B Summary of estimated costs and returns per acre
Soybeans, May-planted, RR, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	53.0000	475.94	_____
TOTAL INCOME				475.94	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	32.50	1.0000	32.50	_____
HARVEST AIDS	acre	7.82	1.0000	7.82	_____
FERTILIZERS	acre	50.04	1.0000	50.04	_____
FUNGICIDES	acre	24.38	1.0000	24.38	_____
HERBICIDES	acre	55.90	1.0000	55.90	_____
INSECTICIDES	acre	31.09	1.0000	31.09	_____
SEED/PLANTS	acre	56.50	1.0000	56.50	_____
ADJUVANTS	acre	3.75	1.0000	3.75	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	14.31	1.0000	14.31	_____
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	_____
CUSTOM LIME	acre	15.18	1.0000	15.18	_____
CROP CONSULTANT	acre	7.00	1.0000	7.00	_____
INOCULANT	acre	3.46	1.0000	3.46	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	13.40	0.6762	9.08	_____
UNALLOCATED LABOR	hour	13.42	0.4261	5.72	_____
DIESEL FUEL	gal	2.00	17.6091	35.21	_____
REPAIR & MAINTENANCE	acre	24.98	1.0000	24.98	_____
INTEREST ON OP. CAP.	acre	8.82	1.0000	8.82	_____
TOTAL DIRECT EXPENSES				401.98	_____
RETURNS ABOVE DIRECT EXPENSES				73.96	_____
TOTAL FIXED EXPENSES				83.37	_____
TOTAL SPECIFIED EXPENSES				485.35	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-9.41	_____

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 4.C Estimated resource use for field operations, per acre
Soybeans, May-planted, RR, 12R 30"
Flood irrigated, 13.5 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	Nov	0.3300				
Disk Harrow	24'	MFWD 190	0.081	1.00	Nov		0.08	0.08	0.08	0.07
Lime (Spread)	ton			0.33	Nov	0.3300				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus(46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Disk Harrow	24'	MFWD 190	0.081	1.00	Apr		0.08	0.08	0.08	0.07
Soybeans Consultant	acre			1.00	May	1.0000				
Field Cultivate Fld	24'	MFWD 190	0.062	1.00	May		0.06	0.06	0.06	0.05
Plant & Pre-Folding	12R-30	MFWD 190	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Vault	oz					2.0000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
Quadris Top	oz					8.0000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Prevathon	oz					14.0000				
Incidental Pest				1.00	Sep					
App by Air (5 gal)	appl					1.0000				
Incidental Pest Trt	acre					1.0000				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Paraquat	oz					16.0000				
Sodium Chlorate 3L	gal					1.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.09
Haul Soybeans	bu					53.0000				
Grain Cart Soybean	700 bu	MFWD 190	0.021	1.00	Oct		0.02	0.02	0.02	0.01
Contour Flood Irr.	acre				Jul	1.0000	0.20	0.20	0.51	
TOTALS							0.67	0.67	1.08	0.42

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 4.D Estimated costs for field operations, per acre
Soybeans, May-planted, RR, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	DIRECT COST: OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
		dollars								
Soil Test	acre	3.30					0.15	3.45		3.45
Disk Harrow	24'		1.60	1.47	2.09		0.23	5.39	5.04	10.43
Lime (Spread)	ton	15.18					0.68	15.86		15.86
Custom Apply Fert	acre	7.00					0.32	7.32		7.32
Phosphorus(46% P2O5)	cwt	21.75					0.98	22.73		22.73
Potash (60% K2O)	cwt	28.29					1.27	29.56		29.56
Disk Harrow	24'		1.60	1.47	2.09		0.14	5.30	5.04	10.34
soybeans Consultant	acre	7.00					0.16	7.16		7.16
Field Cultivate Fld	24'		1.22	0.77	1.58		0.08	3.65	3.96	7.61
Plant & Pre-Folding	12R-30		1.32	2.17	2.34		0.13	5.96	5.82	11.78
Soybean Seed RR2	lb	56.50					1.27	57.77		57.77
CruiserMaxx	oz	7.10					0.16	7.26		7.26
Vault	oz	3.46					0.08	3.54		3.54
Boundary 6.5 EC	pt	20.36					0.46	20.82		20.82
Gramoxone SL 2.0	oz	14.88					0.33	15.21		15.21
Surfactant	pt	2.14					0.05	2.19		2.19
Spray (Broadcast)	60'		0.55	0.40	0.85		0.04	1.84	1.29	3.13
Glyphosate 3lbs a.e	pt	4.52					0.10	4.62		4.62
Prefix	pt	11.62					0.26	11.88		11.88
Spray (Broadcast)	60'		0.55	0.40	0.85		0.03	1.83	1.29	3.12
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
App by Air (5 gal)	appl	6.50					0.10	6.60		6.60
Quadris Top	oz	17.28					0.26	17.54		17.54
Surfactant	pt	0.54					0.01	0.55		0.55
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Acephate 90SP	lb	5.59					0.06	5.65		5.65
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Prevathon	oz	17.50					0.20	17.70		17.70
Incidental Pest										
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Incidental Pest Trt	acre	8.00					0.06	8.06		8.06
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Paraquat	oz	4.32					0.03	4.35		4.35
Sodium Chlorate 3L	gal	3.50					0.03	3.53		3.53
Surfactant	pt	1.07					0.01	1.08		1.08
Header -Soybean	25' Flex		2.79	4.23	2.60		0.04	9.66	14.55	24.21
Haul Soybeans	bu	14.31					0.05	14.36		14.36
Grain Cart Soybean	700 bu		0.42	0.33	0.54			1.29	1.12	2.41
Contour Flood Irr.	acre	2.25	25.16	13.74	5.55		0.73	47.43	45.26	92.69
TOTALS		314.48	35.21	24.98	18.49	0.00	8.82	401.98	83.37	485.35

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 4.E Estimated monthly income and expense flows per acre
Soybeans, May-planted, RR, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2016

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
	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	475.94
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	13.00	13.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.82	0.00
FERTILIZERS	50.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	17.28	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	51.38	4.52	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	0.00	23.09	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	56.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	0.54	0.00	1.07	0.00
CUSTOM FERTILIZE	7.00	0.00	0.00	0.00	0.00	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	14.31
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
CUSTOM LIME	15.18	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	7.00	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.46	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.09	0.00	0.00	0.00	0.00	2.09	5.22	2.64	1.57	1.57	0.17	3.14
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	1.60	0.00	0.00	0.00	0.00	1.60	3.09	9.06	8.23	8.23	0.19	3.21
REPAIR & MAINTENANCE	1.47	0.00	0.00	0.00	0.00	1.47	3.34	8.28	2.90	2.90	0.06	4.56
INTEREST ON OP. CAP.	3.63	0.00	0.00	0.00	0.00	0.14	3.13	0.49	0.56	0.55	0.23	0.09
TOTAL DIRECT EXPENSES	84.31	0.00	0.00	0.00	0.00	5.30	142.36	27.24	37.58	49.34	30.54	25.31
NET INCOME	-84.31	0.00	0.00	0.00	0.00	-5.30	-142.36	-27.24	-37.58	-49.34	-30.54	450.63
NET INCOME TO DATE	-84.31	-84.31	-84.31	-84.31	-84.31	-89.61	-231.97	-259.21	-296.79	-346.13	-376.67	73.96

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

* Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre
Soybeans, May-planted, RR, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-216	-204	-192	-180	-168	-156	-144	-133	-121	-109	-97
			-299	-287	-275	-263	-252	-240	-228	-216	-204	-192	-180
60	31.80	bu	-182	-167	-153	-139	-124	-110	-96	-82	-67	-53	-39
			-265	-251	-236	-222	-208	-194	-179	-165	-151	-136	-122
70	37.10	bu	-147	-131	-114	-97	-81	-64	-47	-31	-14	2	18
			-231	-214	-197	-181	-164	-147	-131	-114	-97	-81	-64
80	42.40	bu	-113	-94	-75	-56	-37	-18	0	19	38	57	76
			-196	-177	-158	-139	-120	-101	-82	-63	-44	-25	-6
90	47.70	bu	-79	-57	-36	-15	6	27	49	70	92	113	134
			-162	-141	-119	-98	-76	-55	-34	-12	8	30	51
100	53.00	bu	-45	-21	2	26	50	73	97	121	145	169	192
			-128	-104	-80	-57	-33	-9	14	38	61	85	109
110	58.30	bu	-10	15	41	67	93	120	146	172	198	224	251
			-94	-67	-41	-15	10	36	62	89	115	141	167
120	63.60	bu	23	52	80	109	137	166	194	223	251	280	309
			-59	-31	-2	25	54	82	111	140	168	197	225
130	68.90	bu	57	88	119	150	181	212	243	274	305	336	367
			-25	5	36	67	98	129	160	190	221	252	283
140	74.20	bu	92	125	158	191	225	258	291	325	358	391	425
			8	41	75	108	141	175	208	241	275	308	341
150	79.50	bu	126	161	197	233	269	304	340	376	411	447	483
			42	78	114	149	185	221	257	292	328	364	399

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
Soybeans after wheat, RR, 12R 30"
Pivot irrigated, 7.5 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	4.0000	26.00	
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	25.00	0.8700	21.75	
Potash (60% K2O)	cwt	21.27	1.3300	28.29	
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	
Quadris Top	oz	2.16	8.0000	17.28	
HERBICIDES					
Boundary 6.5 EC	pt	10.18	2.0000	20.36	
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	
Dual Magnum	pt	13.01	2.0000	26.02	
Glyphosate 3lbs a.e	pt	2.26	2.0000	4.52	
INSECTICIDES					
Acephate 90SP	lb	7.45	0.7500	5.59	
Prevathon	oz	1.25	14.0000	17.50	
Baythroid XL	oz	2.55	2.1300	5.43	
Incidental Pest Trt	acre	8.00	1.0000	8.00	
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	
ADJUVANTS					
Surfactant	pt	5.35	0.6000	3.21	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	
HAULING					
Haul Soybeans	bu	0.27	50.0000	13.50	
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	
CROP CONSULTANT					
Soybeans Consultant	acre	7.00	1.0000	7.00	
INOCULANT					
Vault	oz	1.73	2.0000	3.46	
SOIL TEST					
Soil Test	acre	10.00	0.3300	3.30	
OPERATOR LABOR					
Tractors	hour	13.40	0.1453	1.95	
Harvesters	hour	13.40	0.1021	1.37	
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	
UNALLOCATED LABOR	hour	13.43	0.2128	2.86	
DIESEL FUEL					
Tractors	gal	2.00	1.6834	3.36	
Harvesters	gal	2.00	1.3935	2.79	
1/2-mi Pivot Irr.	gal	2.00	16.4057	32.80	
REPAIR & MAINTENANCE					
Implements	acre	3.36	1.0000	3.36	
Tractors	acre	1.03	1.0000	1.03	
Harvesters	acre	3.35	1.0000	3.35	
1/2-mi Pivot Irr.	acre	9.62	1.0000	9.62	
INTEREST ON OP. CAP.	acre	7.92	1.0000	7.92	

TOTAL DIRECT EXPENSES				388.11	
FIXED EXPENSES					
Implements	acre	5.69	1.0000	5.69	
Tractors	acre	6.53	1.0000	6.53	
Harvesters	acre	13.23	1.0000	13.23	
1/2-mi Pivot Irr.	acre	34.22	1.0000	34.22	

TOTAL FIXED EXPENSES				59.67	

TOTAL SPECIFIED EXPENSES				447.78	

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 5.B Summary of estimated costs and returns per acre
Soybeans after wheat, RR, 12R 30"
Pivot irrigated, 7.5 ac-in., Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	50.0000	449.00	_____
TOTAL INCOME				449.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
FERTILIZERS	acre	50.04	1.0000	50.04	_____
FUNGICIDES	acre	24.38	1.0000	24.38	_____
HERBICIDES	acre	70.26	1.0000	70.26	_____
INSECTICIDES	acre	36.52	1.0000	36.52	_____
SEED/PLANTS	acre	56.50	1.0000	56.50	_____
ADJUVANTS	acre	3.22	1.0000	3.22	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	15.18	1.0000	15.18	_____
CROP CONSULTANT	acre	7.00	1.0000	7.00	_____
INOCULANT	acre	3.46	1.0000	3.46	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	13.40	0.2475	3.32	_____
UNALLOCATED LABOR	hour	13.43	0.2128	2.86	_____
DIESEL FUEL	gal	2.00	19.4827	38.95	_____
REPAIR & MAINTENANCE	acre	17.36	1.0000	17.36	_____
INTEREST ON OP. CAP.	acre	7.92	1.0000	7.92	_____
TOTAL DIRECT EXPENSES				388.11	_____
RETURNS ABOVE DIRECT EXPENSES				60.89	_____
TOTAL FIXED EXPENSES				59.67	_____
TOTAL SPECIFIED EXPENSES				447.78	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				1.22	_____

Note: Cost of production estimates are based on 2015 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 5.C Estimated resource use for field operations, per acre
Soybeans after wheat, RR, 12R 30"
Pivot irrigated, 7.5 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	Nov	0.3300				
Lime (Spread)	ton			0.33	Nov	0.3300				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus(46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 225	0.067	1.00	Jun		0.06	0.06	0.13	0.05
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Vault	oz					2.0000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Dual Magnum	pt					1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Quadris Top	oz					8.0000				
Surfactant	pt					0.1000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Prevathon	oz					14.0000				
Surfactant	pt					0.1000				
Baythroid XL	oz					2.1300				
Incidental Pest				1.00	Sep					
App by Air (5 gal)	appl					1.0000				
Incidental Pest Trt	acre					1.0000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu					50.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
1/2-mi Pivot Irr.	acre				Jul	1.0000			0.05	
TOTALS							0.24	0.24	0.39	0.21

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 5.D Estimated costs for field operations, per acre
Soybeans after wheat, RR, 12R 30"
Pivot irrigated, 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								
Soil Test	acre	3.30					0.15	3.45		3.45
Lime (Spread)	ton	15.18					0.68	15.86		15.86
Custom Apply Fert	acre	7.00					0.32	7.32		7.32
Phosphorus(46% P2O5)	cwt	21.75					0.98	22.73		22.73
Potash (60% K2O)	cwt	28.29					1.27	29.56		29.56
soybeans Consultant	acre	7.00					0.16	7.16		7.16
Plant & Pre-Folding	12R-30		1.57	2.27	2.30		0.12	6.26	6.46	12.72
Soybean Seed RR2	lb	56.50					1.06	57.56		57.56
CruiserMaxx	oz	7.10					0.13	7.23		7.23
Vault	oz	3.46					0.06	3.52		3.52
Boundary 6.5 EC	pt	20.36					0.38	20.74		20.74
Gramoxone SL 2.0	oz	14.88					0.28	15.16		15.16
Surfactant	pt	2.14					0.04	2.18		2.18
Spray (Broadcast)	60'		0.65	0.44	0.84		0.04	1.97	1.56	3.53
Glyphosate 3lbs a.e	oz	4.48					0.08	4.56		4.56
Dual Magnum	pt	13.01					0.24	13.25		13.25
Spray (Broadcast)	60'		0.65	0.44	0.84		0.03	1.96	1.56	3.52
Glyphosate 3lbs a.e	pt	4.52					0.07	4.59		4.59
Dual Magnum	pt	13.01					0.20	13.21		13.21
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Quadris Top	oz	17.28					0.19	17.47		17.47
Surfactant	pt	0.54					0.01	0.55		0.55
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Acephate 90SP	lb	5.59					0.06	5.65		5.65
App by Air (5 gal)	appl	6.50					0.07	6.57		6.57
Prevathon	oz	17.50					0.20	17.70		17.70
Surfactant	pt	0.54					0.01	0.55		0.55
Baythroid XL	oz	5.43					0.06	5.49		5.49
Incidental Pest										
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Incidental Pest Trt	acre	8.00					0.06	8.06		8.06
Header -Soybean	25' Flex		2.79	4.23	2.55		0.04	9.61	14.55	24.16
Haul Soybeans	bu	13.50					0.05	13.55		13.55
Grain Cart Soybean	700 bu		0.49	0.36	0.52		0.01	1.38	1.32	2.70
1/2-mi Pivot Irr.	acre		32.80	9.62	0.47		0.68	43.57	34.22	77.79
TOTALS		316.36	38.95	17.36	7.52	0.00	7.92	388.11	59.67	447.78

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust,but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 5.E Estimated monthly income and expense flows per acre
Soybeans after wheat, RR, 12R 30"
Pivot irrigated, 7.5 ac-in., Delta Area, Mississippi, 2016

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
	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	449.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.50	6.50	0.00
FERTILIZERS	50.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	17.28	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.73	17.53	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.52	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	1.08	0.00	0.00
CUSTOM FERTILIZE	7.00	0.00	0.00	0.00	0.00	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	13.50
CUSTOM LIME	15.18	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	7.00	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	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	0.00	0.34	3.18	0.89	0.04	0.00	3.07
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	0.00	0.00	12.06	13.77	9.84	0.00	3.28
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.07	1.16	0.54	0.00	4.59
INTEREST ON OP. CAP.	3.40	0.00	0.00	0.00	0.00	0.00	0.17	2.77	0.51	0.86	0.11	0.10
TOTAL DIRECT EXPENSES	78.92	0.00	0.00	0.00	0.00	0.00	7.51	151.01	33.86	77.66	14.61	24.54
NET INCOME	-78.92	0.00	0.00	0.00	0.00	0.00	-7.51	-151.01	-33.86	-77.66	-14.61	424.46
NET INCOME TO DATE	-78.92	-78.92	-78.92	-78.92	-78.92	-78.92	-86.43	-237.44	-271.30	-348.96	-363.57	60.89

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

* Lease costs are based on hourly usage costs.

Table 5.F Estimated returns for various price/yield combinations, per acre
Soybeans after wheat, RR, 12R 30"
Pivot irrigated, 7.5 ac-in., Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-212	-201	-190	-179	-168	-156	-145	-134	-123	-111	-100
			-272	-261	-250	-238	-227	-216	-205	-194	-182	-171	-160
60	30.00	bu	-180	-167	-153	-140	-126	-113	-99	-86	-72	-59	-45
			-240	-226	-213	-199	-186	-172	-159	-146	-132	-119	-105
70	35.00	bu	-148	-132	-116	-101	-85	-69	-54	-38	-22	-6	8
			-207	-192	-176	-160	-145	-129	-113	-97	-82	-66	-50
80	40.00	bu	-116	-98	-80	-62	-44	-26	-8	9	27	45	63
			-175	-157	-139	-121	-103	-85	-67	-49	-31	-14	3
90	45.00	bu	-83	-63	-43	-23	-2	17	37	57	77	98	118
			-143	-123	-102	-82	-62	-42	-22	-1	18	38	58
100	50.00	bu	-51	-28	-6	15	38	60	83	105	128	150	173
			-111	-88	-66	-43	-21	1	23	46	68	91	113
110	55.00	bu	-19	5	30	55	79	104	129	153	178	203	227
			-78	-54	-29	-4	20	44	69	94	118	143	168
120	60.00	bu	13	40	67	94	121	147	174	201	228	255	282
			-46	-19	7	34	61	88	115	142	169	196	223
130	65.00	bu	45	74	103	133	162	191	220	249	279	308	337
			-14	15	44	73	102	131	161	190	219	248	277
140	70.00	bu	77	109	140	172	203	235	266	297	329	360	392
			18	49	81	112	143	175	206	238	269	301	332
150	75.00	bu	110	143	177	211	244	278	312	345	379	413	446
			50	84	117	151	185	218	252	286	319	353	387

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
Soybeans, early-planted, RR, reduced tillage, 12R 30"
Non-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	2.0000	13.00	
HARVEST AIDS					
Paraquat	oz	0.27	16.0000	4.32	
FERTILIZERS					
Potash (60% K2O)	cwt	21.27	1.6600	35.31	
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	
Quadris Top	oz	2.16	4.0000	8.64	
HERBICIDES					
Glyphosate 3lbs a.e	pt	2.26	6.0000	13.56	
2,4-D Amine 4	pt	2.44	2.0000	4.88	
Boundary 6.5 EC	pt	10.18	2.0000	20.36	
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	
Prefix	pt	5.81	2.0000	11.62	
INSECTICIDES					
Acephate 90SP	lb	7.45	0.7500	5.59	
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	
ADJUVANTS					
Surfactant	pt	5.35	0.6500	3.48	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	
HAULING					
Haul Soybeans	bu	0.27	43.0000	11.61	
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	
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	0.3269	4.38	
Harvesters	hour	13.40	0.1021	1.37	
HAND LABOR					
Implements	hour	9.06	0.1122	1.02	
UNALLOCATED LABOR	hour	13.41	0.3861	5.18	
DIESEL FUEL					
Tractors	gal	2.00	3.1971	6.40	
Harvesters	gal	2.00	1.3935	2.79	
REPAIR & MAINTENANCE					
Implements	acre	4.84	1.0000	4.84	
Tractors	acre	1.84	1.0000	1.84	
Harvesters	acre	3.35	1.0000	3.35	
INTEREST ON OP. CAP.	acre	6.84	1.0000	6.84	
TOTAL DIRECT EXPENSES				281.34	
FIXED EXPENSES					
Implements	acre	9.44	1.0000	9.44	
Tractors	acre	11.58	1.0000	11.58	
Harvesters	acre	13.23	1.0000	13.23	
TOTAL FIXED EXPENSES				34.25	
TOTAL SPECIFIED EXPENSES				315.59	

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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 6.B Summary of estimated costs and returns per acre
Soybeans, early-planted, RR, reduced tillage, 12R 30"
Non-Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	43.0000	386.14	
TOTAL INCOME				386.14	
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.00	1.0000	13.00	
HARVEST AIDS	acre	4.32	1.0000	4.32	
FERTILIZERS	acre	35.31	1.0000	35.31	
FUNGICIDES	acre	15.74	1.0000	15.74	
HERBICIDES	acre	65.30	1.0000	65.30	
INSECTICIDES	acre	5.59	1.0000	5.59	
SEED/PLANTS	acre	56.50	1.0000	56.50	
ADJUVANTS	acre	3.48	1.0000	3.48	
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	
HAULING	acre	11.61	1.0000	11.61	
CUSTOM LIME	acre	15.18	1.0000	15.18	
CROP CONSULTANT	acre	7.00	1.0000	7.00	
SOIL TEST	acre	3.30	1.0000	3.30	
HAND LABOR	hour	9.06	0.1122	1.02	
OPERATOR LABOR	hour	13.40	0.4290	5.75	
UNALLOCATED LABOR	hour	13.41	0.3861	5.18	
DIESEL FUEL	gal	2.00	4.5907	9.19	
REPAIR & MAINTENANCE	acre	10.03	1.0000	10.03	
INTEREST ON OP. CAP.	acre	6.84	1.0000	6.84	
TOTAL DIRECT EXPENSES				281.34	
RETURNS ABOVE DIRECT EXPENSES				104.80	
TOTAL FIXED EXPENSES				34.25	
TOTAL SPECIFIED EXPENSES				315.59	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				70.55	

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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 6.C Estimated resource use for field operations, per acre
Soybeans, early-planted, RR, reduced tillage, 12R 30"
Non-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	0.3300				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Potash (60% K2O)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Disk Harrow	24'	MFWD 190	0.081	1.00	Oct		0.08	0.08	0.08	0.07
Field Cultivate Fld	24'	MFWD 190	0.062	1.00	Oct		0.06	0.06	0.06	0.05
App by Air (5 gal)	appl			1.00	Mar	1.0000				
Glyphosate 3lbs a.e	pt					2.0000				
2,4-D Amine 4	pt					2.0000				
Plant - Folding	12R-30	MFWD 190	0.062	1.00	Apr		0.06	0.06	0.12	0.05
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Prefix	pt					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Quadris Top	oz					4.0000				
Surfactant	pt					0.0500				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Aug		0.02	0.02	0.04	0.02
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Paraquat	oz					16.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09
Haul Soybeans	bu					43.0000				
Grain Cart Soybean	700 bu	MFWD 190	0.021	1.00	Sep		0.02	0.02	0.02	0.01
TOTALS							0.42	0.42	0.54	0.38

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 6.D Estimated costs for field operations, per acre
Soybeans, early-planted, RR, reduced tillage, 12R 30"
Non-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	15.18					0.68	15.86		15.86
Custom Apply Fert	acre	7.00					0.32	7.32		7.32
Potash (60% K2O)	cwt	14.04					0.63	14.67		14.67
Potash (60% K2O)	cwt	21.27					0.96	22.23		22.23
Disk Harrow	24'		1.60	1.47	2.09		0.23	5.39	5.04	10.43
Field Cultivate Fld	24'		1.22	0.77	1.58		0.16	3.73	3.96	7.69
App by Air (5 gal)	appl	6.50					0.17	6.67		6.67
Glyphosate 3lbs a.e	pt	4.52					0.12	4.64		4.64
2,4-D Amine 4	pt	4.88					0.13	5.01		5.01
Plant - Folding	12R-30		1.23	1.83	2.17		0.12	5.35	5.06	10.41
Soybean Seed RR2	lb	56.50					1.27	57.77		57.77
CruiserMaxx	oz	7.10					0.16	7.26		7.26
Boundary 6.5 EC	pt	20.36					0.46	20.82		20.82
Gramoxone SL 2.0	oz	14.88					0.33	15.21		15.21
Surfactant	pt	2.14					0.05	2.19		2.19
Spray (Broadcast)	60'		0.55	0.40	0.85		0.03	1.83	1.29	3.12
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
Prefix	pt	11.62					0.22	11.84		11.84
soybeans Consultant	acre	7.00					0.13	7.13		7.13
Spray (Broadcast)	60'		0.55	0.40	0.85		0.03	1.83	1.29	3.12
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
Spray (Broadcast)	60'		0.28	0.20	0.42		0.01	0.91	0.65	1.56
Quadris Top	oz	8.64					0.10	8.74		8.74
Surfactant	pt	0.27						0.27		0.27
Spray (Broadcast)	60'		0.55	0.40	0.85		0.01	1.81	1.29	3.10
Acephate 90SP	lb	5.59					0.04	5.63		5.63
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Paraquat	oz	4.32					0.03	4.35		4.35
Surfactant	pt	1.07					0.01	1.08		1.08
Header -Soybean	25' Flex		2.79	4.23	2.60		0.04	9.66	14.55	24.21
Haul Soybeans	bu	11.61					0.04	11.65		11.65
Grain Cart Soybean	700 bu		0.42	0.33	0.54			1.29	1.12	2.41
TOTALS		243.33	9.19	10.03	11.95	0.00	6.84	281.34	34.25	315.59

Note: Cost of production estimates are based on 2015 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 6.E Estimated monthly income and expense flows per acre
Soybeans, early-planted, RR, reduced tillage, 12R 30"
Non-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	386.14
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	6.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.32	0.00
FERTILIZERS	35.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	0.00	8.64	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.40	35.24	20.66	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	0.00	0.00	5.59	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	56.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	0.00	0.27	1.07	0.00
CUSTOM FERTILIZE	7.00	0.00	0.00	0.00	0.00	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	11.61
CUSTOM LIME	15.18	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	3.67	0.00	0.00	0.00	0.00	0.00	2.17	1.70	0.00	0.42	0.85	3.14
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	2.82	0.00	0.00	0.00	0.00	0.00	1.23	1.10	0.00	0.28	0.55	3.21
REPAIR & MAINTENANCE	2.24	0.00	0.00	0.00	0.00	0.00	1.83	0.80	0.00	0.20	0.40	4.56
INTEREST ON OP. CAP.	3.13	0.00	0.00	0.00	0.00	0.42	2.39	0.57	0.00	0.11	0.14	0.08
TOTAL DIRECT EXPENSES	72.65	0.00	0.00	0.00	0.00	16.32	108.60	31.83	0.00	9.92	19.42	22.60
NET INCOME	-72.65	0.00	0.00	0.00	0.00	-16.32	-108.60	-31.83	0.00	-9.92	-19.42	363.54
NET INCOME TO DATE	-72.65	-72.65	-72.65	-72.65	-72.65	-88.97	-197.57	-229.40	-229.40	-239.32	-258.74	104.80

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. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre
* Lease costs are based on hourly usage costs.

Table 6.F Estimated returns for various price/yield combinations, per acre
Soybeans, early-planted, RR, reduced tillage, 12R 30"
Non-Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-130	-121	-111	-101	-92	-82	-72	-63	-53	-43	-34
			-164	-155	-145	-136	-126	-116	-107	-97	-87	-78	-68
60	25.80	bu	-102	-91	-79	-68	-56	-44	-33	-21	-10	1	12
			-137	-125	-113	-102	-90	-79	-67	-56	-44	-32	-21
70	30.10	bu	-75	-61	-48	-34	-21	-7	5	19	32	46	60
			-109	-95	-82	-68	-55	-41	-28	-14	-1	12	25
80	34.40	bu	-47	-31	-16	-0	14	29	45	60	76	91	107
			-81	-66	-50	-35	-19	-4	11	26	41	57	72
90	38.70	bu	-19	-2	15	32	49	67	84	102	119	136	154
			-53	-36	-19	-1	15	33	50	67	85	102	119
100	43.00	bu	8	27	46	66	85	104	124	143	162	182	201
			-25	-6	12	31	51	70	89	109	128	147	167
110	47.30	bu	36	57	78	99	121	142	163	184	205	227	248
			1	23	44	65	86	107	129	150	171	192	214
120	51.60	bu	63	87	110	133	156	179	202	226	249	272	295
			29	52	75	99	122	145	168	191	214	238	261
130	55.90	bu	91	116	141	166	192	217	242	267	292	317	342
			57	82	107	132	157	182	207	233	258	283	308
140	60.20	bu	119	146	173	200	227	254	281	308	335	362	389
			85	112	139	166	193	220	247	274	301	328	355
150	64.50	bu	147	176	205	234	263	292	321	349	378	407	436
			112	141	170	199	228	257	286	315	344	373	402

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
Soybeans, May-planted, RR, convent. tillage, 12R 30"
Non-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	
HARVEST AIDS					
Paraquat	oz	0.27	16.0000	4.32	
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	25.00	0.6600	16.50	
Potash (60% K2O)	cwt	21.27	1.0000	21.27	
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	
Quadris Top	oz	2.16	4.0000	8.64	
HERBICIDES					
Boundary 6.5 EC	pt	10.18	2.0000	20.36	
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	
Glyphosate 3lbs a.e	pt	2.26	4.0000	9.04	
Prefix	pt	5.81	2.0000	11.62	
INSECTICIDES					
Dimilin 2L	oz	2.22	1.0000	2.22	
Prevathon	oz	1.25	14.0000	17.50	
Baythroid XL	oz	2.55	1.0650	2.72	
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	
ADJUVANTS					
Surfactant	pt	5.35	0.6500	3.48	
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	
HAULING					
Haul Soybeans	bu	0.27	40.0000	10.80	
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	
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	0.3458	4.64	
Harvesters	hour	13.40	0.1021	1.37	
HAND LABOR					
Implements	hour	9.06	0.1241	1.12	
UNALLOCATED LABOR	hour	13.41	0.4032	5.41	
DIESEL FUEL					
Tractors	gal	2.00	3.3823	6.77	
Harvesters	gal	2.00	1.3935	2.79	
REPAIR & MAINTENANCE					
Implements	acre	5.27	1.0000	5.27	
Tractors	acre	1.95	1.0000	1.95	
Harvesters	acre	3.35	1.0000	3.35	
INTEREST ON OP. CAP.	acre	5.89	1.0000	5.89	
TOTAL DIRECT EXPENSES				284.49	
FIXED EXPENSES					
Implements	acre	10.18	1.0000	10.18	
Tractors	acre	12.25	1.0000	12.25	
Harvesters	acre	13.23	1.0000	13.23	
TOTAL FIXED EXPENSES				35.66	
TOTAL SPECIFIED EXPENSES				320.15	

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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 7.B Summary of estimated costs and returns per acre
Soybeans, May-planted, RR, convent. tillage, 12R 30"
Non-Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	40.0000	359.20	_____
TOTAL INCOME				359.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
HARVEST AIDS	acre	4.32	1.0000	4.32	_____
FERTILIZERS	acre	37.77	1.0000	37.77	_____
FUNGICIDES	acre	15.74	1.0000	15.74	_____
HERBICIDES	acre	55.90	1.0000	55.90	_____
INSECTICIDES	acre	22.44	1.0000	22.44	_____
SEED/PLANTS	acre	56.50	1.0000	56.50	_____
ADJUVANTS	acre	3.48	1.0000	3.48	_____
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	15.18	1.0000	15.18	_____
CROP CONSULTANT	acre	7.00	1.0000	7.00	_____
SOIL TEST	acre	3.30	1.0000	3.30	_____
HAND LABOR	hour	9.06	0.1241	1.12	_____
OPERATOR LABOR	hour	13.40	0.4480	6.01	_____
UNALLOCATED LABOR	hour	13.41	0.4032	5.41	_____
DIESEL FUEL	gal	2.00	4.7759	9.56	_____
REPAIR & MAINTENANCE	acre	10.57	1.0000	10.57	_____
INTEREST ON OP. CAP.	acre	5.89	1.0000	5.89	_____
TOTAL DIRECT EXPENSES				284.49	_____
RETURNS ABOVE DIRECT EXPENSES				74.71	_____
TOTAL FIXED EXPENSES				35.66	_____
TOTAL SPECIFIED EXPENSES				320.15	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				39.05	_____

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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 7.C Estimated resource use for field operations, per acre
Soybeans, May-planted, RR, convent. tillage, 12R 30"
Non-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	Nov	0.3300				
Lime (Spread)	ton			0.33	Nov	0.3300				
Custom Apply Fert	acre			1.00	Apr	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Disk Harrow	24'	MFWD 190	0.081	1.00	Apr		0.08	0.08	0.08	0.07
Soybeans Consultant	acre			1.00	May	1.0000				
Field Cultivate Fld	24'	MFWD 190	0.062	1.00	May		0.06	0.06	0.06	0.05
Plant & Pre-Folding	12R-30	MFWD 190	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
Quadris Top	oz					4.0000				
Surfactant	pt					0.0500				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Aug		0.02	0.02	0.04	0.02
Prevathon	oz					14.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Aug		0.01	0.01	0.02	0.01
Baythroid XL	oz					1.0650				
App by Air (5 gal)	appl			1.00	Sep	1.0000				
Paraquat	oz					16.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.09
Haul Soybeans	bu					40.0000				
Grain Cart Soybean	700 bu	MFWD 190	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.44	0.44	0.57	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. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 7.D Estimated costs for field operations, per acre
Soybeans, May-planted, RR, convent. tillage, 12R 30"
Non-Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	DIRECT COST: OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
		dollars								
Soil Test	acre	3.30					0.15	3.45		3.45
Lime (Spread)	ton	15.18					0.68	15.86		15.86
Custom Apply Fert	acre	7.00					0.18	7.18		7.18
Phosphorus(46% P2O5)	cwt	16.50					0.43	16.93		16.93
Potash (60% K2O)	cwt	21.27					0.56	21.83		21.83
Disk Harrow	24'		1.60	1.47	2.09		0.14	5.30	5.04	10.34
soybeans Consultant	acre	7.00					0.16	7.16		7.16
Field Cultivate Fld	24'		1.22	0.77	1.58		0.08	3.65	3.96	7.61
Plant & Pre-Folding	12R-30		1.32	2.17	2.34		0.13	5.96	5.82	11.78
Soybean Seed RR2	lb	56.50					1.27	57.77		57.77
CruiserMaxx	oz	7.10					0.16	7.26		7.26
Boundary 6.5 EC	pt	20.36					0.46	20.82		20.82
Gramoxone SL 2.0	oz	14.88					0.33	15.21		15.21
Surfactant	pt	2.14					0.05	2.19		2.19
Spray (Broadcast)	60'		0.55	0.40	0.85		0.04	1.84	1.29	3.13
Glyphosate 3lbs a.e	pt	4.52					0.10	4.62		4.62
Prefix	pt	11.62					0.26	11.88		11.88
Spray (Broadcast)	60'		0.55	0.40	0.85		0.03	1.83	1.29	3.12
Glyphosate 3lbs a.e	pt	4.52					0.08	4.60		4.60
Spray (Broadcast)	60'		0.28	0.20	0.42		0.01	0.91	0.65	1.56
Dimilin 2L	oz	2.22					0.03	2.25		2.25
Quadris Top	oz	8.64					0.13	8.77		8.77
Surfactant	pt	0.27						0.27		0.27
Spray (Broadcast)	60'		0.55	0.40	0.85		0.02	1.82	1.29	3.11
Prevathon	oz	17.50					0.20	17.70		17.70
Spray (Broadcast)	60'		0.28	0.20	0.42		0.01	0.91	0.65	1.56
Baythroid XL	oz	2.72					0.03	2.75		2.75
App by Air (5 gal)	appl	6.50					0.05	6.55		6.55
Paraquat	oz	4.32					0.03	4.35		4.35
Surfactant	pt	1.07					0.01	1.08		1.08
Header -Soybean	25' Flex		2.79	4.23	2.60		0.04	9.66	14.55	24.21
Haul Soybeans	bu	10.80					0.04	10.84		10.84
Grain Cart Soybean	700 bu		0.42	0.33	0.54			1.29	1.12	2.41
TOTALS		245.93	9.56	10.57	12.54	0.00	5.89	284.49	35.66	320.15

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. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 7.E Estimated monthly income and expense flows per acre
Soybeans, May-planted, RR, convent. tillage, 12R 30"
Non-Delta Area, Mississippi, 2016

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
	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	359.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.32	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	37.77	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	8.64	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	51.38	4.52	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	2.22	20.22	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	56.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	0.27	0.00	1.07	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	7.00	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	10.80
CUSTOM LIME	15.18	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	7.00	0.00	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	2.09	4.77	0.85	0.42	1.27	0.00	3.14
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	1.60	3.09	0.55	0.28	0.83	0.00	3.21
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	1.47	3.34	0.40	0.20	0.60	0.00	4.56
INTEREST ON OP. CAP.	0.83	0.00	0.00	0.00	0.00	1.31	3.04	0.11	0.17	0.26	0.09	0.08
TOTAL DIRECT EXPENSES	19.31	0.00	0.00	0.00	0.00	51.24	138.36	6.43	12.20	23.18	11.98	21.79
NET INCOME	-19.31	0.00	0.00	0.00	0.00	-51.24	-138.36	-6.43	-12.20	-23.18	-11.98	337.41
NET INCOME TO DATE	-19.31	-19.31	-19.31	-19.31	-19.31	-70.55	-208.91	-215.34	-227.54	-250.72	-262.70	74.71

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. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre
* Lease costs are based on hourly usage costs.

Table 7.F Estimated returns for various price/yield combinations, per acre
Soybeans, May-planted, RR, convent. tillage, 12R 30"
Non-Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-144	-135	-126	-117	-108	-99	-90	-81	-72	-63	-54
			-180	-171	-162	-153	-144	-135	-126	-117	-108	-99	-90
60	24.00	bu	-118	-107	-96	-86	-75	-64	-53	-43	-32	-21	-10
			-154	-143	-132	-121	-111	-100	-89	-78	-67	-57	-46
70	28.00	bu	-92	-80	-67	-54	-42	-29	-17	-4	7	20	33
			-128	-115	-103	-90	-78	-65	-52	-40	-27	-15	-2
80	32.00	bu	-66	-52	-38	-23	-9	5	19	33	48	62	76
			-102	-88	-73	-59	-44	-30	-16	-1	12	26	41
90	36.00	bu	-40	-24	-8	7	23	39	56	72	88	104	120
			-76	-60	-44	-28	-11	4	20	36	52	68	85
100	40.00	bu	-15	2	20	38	56	74	92	110	128	146	164
			-50	-32	-14	3	21	39	57	74	92	110	128
110	44.00	bu	10	30	50	70	89	109	129	149	168	188	208
			-24	-5	14	34	54	73	93	113	133	152	172
120	48.00	bu	36	58	79	101	122	144	165	187	209	230	252
			0	22	44	65	87	108	130	151	173	194	216
130	52.00	bu	62	85	109	132	155	179	202	225	249	272	295
			26	50	73	96	120	143	166	190	213	236	260
140	56.00	bu	88	113	138	163	188	214	239	264	289	314	339
			52	77	102	128	153	178	203	228	253	278	304
150	60.00	bu	114	141	168	195	221	248	275	302	329	356	383
			78	105	132	159	186	213	240	267	294	320	347

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
Soybeans after wheat, RR, no-till, 12R 30"
Non-Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	25.00	0.6600	16.50	_____
Potash (60% K2O)	cwt	21.27	1.0000	21.27	_____
FUNGICIDES					
CruiserMaxx	oz	4.44	1.6000	7.10	_____
Quadris Top	oz	2.16	4.0000	8.64	_____
HERBICIDES					
Boundary 6.5 EC	pt	10.18	2.0000	20.36	_____
Gramoxone SL 2.0	oz	0.31	48.0000	14.88	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Dual Magnum	pt	13.01	2.0000	26.02	_____
Glyphosate 3lbs a.e	pt	2.26	2.0000	4.52	_____
INSECTICIDES					
Dimilin 2L	oz	2.22	1.0000	2.22	_____
Prevathon	oz	1.25	14.0000	17.50	_____
Baythroid XL	oz	2.55	1.5975	4.07	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.13	50.0000	56.50	_____
ADJUVANTS					
Surfactant	pt	5.35	0.4500	2.41	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.00	1.0000	7.00	_____
HAULING					
Haul Soybeans	bu	0.27	25.0000	6.75	_____
CROP CONSULTANT					
Soybeans Consultant	acre	7.00	1.0000	7.00	_____
OPERATOR LABOR					
Tractors	hour	13.40	0.2116	2.83	_____
Harvesters	hour	13.40	0.1021	1.37	_____
HAND LABOR					
Implements	hour	9.06	0.1304	1.19	_____
UNALLOCATED LABOR	hour	13.41	0.2698	3.62	_____
DIESEL FUEL					
Tractors	gal	2.00	2.0699	4.14	_____
Harvesters	gal	2.00	1.3935	2.79	_____
REPAIR & MAINTENANCE					
Implements	acre	4.12	1.0000	4.12	_____
Tractors	acre	1.20	1.0000	1.20	_____
Harvesters	acre	3.35	1.0000	3.35	_____
INTEREST ON OP. CAP.	acre	5.27	1.0000	5.27	_____

TOTAL DIRECT EXPENSES				257.10	_____
FIXED EXPENSES					
Implements	acre	6.77	1.0000	6.77	_____
Tractors	acre	7.50	1.0000	7.50	_____
Harvesters	acre	13.23	1.0000	13.23	_____

TOTAL FIXED EXPENSES				27.50	_____

TOTAL SPECIFIED EXPENSES				284.60	_____

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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 8.B Summary of estimated costs and returns per acre
Soybeans after wheat, RR, no-till, 12R 30"
Non-Delta Area, Mississippi, 2016

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	8.98	25.0000	224.50	
TOTAL INCOME				224.50	
DIRECT EXPENSES					
FERTILIZERS	acre	37.77	1.0000	37.77	
FUNGICIDES	acre	15.74	1.0000	15.74	
HERBICIDES	acre	70.26	1.0000	70.26	
INSECTICIDES	acre	23.79	1.0000	23.79	
SEED/PLANTS	acre	56.50	1.0000	56.50	
ADJUVANTS	acre	2.41	1.0000	2.41	
CUSTOM FERTILIZE	acre	7.00	1.0000	7.00	
HAULING	acre	6.75	1.0000	6.75	
CROP CONSULTANT	acre	7.00	1.0000	7.00	
HAND LABOR	hour	9.06	0.1304	1.19	
OPERATOR LABOR	hour	13.40	0.3138	4.20	
UNALLOCATED LABOR	hour	13.41	0.2698	3.62	
DIESEL FUEL	gal	2.00	3.4635	6.93	
REPAIR & MAINTENANCE	acre	8.67	1.0000	8.67	
INTEREST ON OP. CAP.	acre	5.27	1.0000	5.27	
TOTAL DIRECT EXPENSES				257.10	
RETURNS ABOVE DIRECT EXPENSES				-32.60	
TOTAL FIXED EXPENSES				27.50	
TOTAL SPECIFIED EXPENSES				284.60	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-60.10	

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.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre..

Table 8.C Estimated resource use for field operations, per acre
Soybeans after wheat, RR, no-till, 12R 30"
Non-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			
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
NT Plant&Pre-Folding	12R-30	MFWD 190	0.070	1.00	Jun		0.07	0.07	0.14	0.06
Soybean Seed RR2	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary 6.5 EC	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Dual Magnum	pt					1.0000				
Soybeans Consultant	acre			1.00	Jul	1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	pt					2.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Aug		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
Quadris Top	oz					4.0000				
Surfactant	pt					0.0500				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Aug		0.02	0.02	0.04	0.02
Prevathon	oz					14.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.75	Aug		0.02	0.02	0.03	0.01
Baythroid XL	oz					1.5975				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu					25.0000				
Grain Cart Soybean	700 bu	MFWD 190	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.31	0.31	0.44	0.26

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. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 8.D Estimated costs for field operations, per acre
Soybeans after wheat, RR, no-till, 12R 30"
Non-Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	DIRECT COST: OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
		dollars								
Custom Apply Fert	acre	7.00					0.32	7.32		7.32
Phosphorus(46% P2O5)	cwt	16.50					0.74	17.24		17.24
Potash (60% K2O)	cwt	21.27					0.96	22.23		22.23
NT Plant&Pre-Folding	12R-30		1.38	2.41	2.39		0.12	6.30	6.34	12.64
Soybean Seed RR2	lb	56.50					1.06	57.56		57.56
CruiserMaxx	oz	7.10					0.13	7.23		7.23
Boundary 6.5 EC	pt	20.36					0.38	20.74		20.74
Gramoxone SL 2.0	oz	14.88					0.28	15.16		15.16
Surfactant	pt	2.14					0.04	2.18		2.18
Spray (Broadcast)	60'		0.55	0.40	0.84		0.03	1.82	1.29	3.11
Glyphosate 3lbs a.e	oz	4.48					0.08	4.56		4.56
Dual Magnum	pt	13.01					0.24	13.25		13.25
soybeans Consultant	acre	7.00					0.11	7.11		7.11
Spray (Broadcast)	60'		0.55	0.40	0.84		0.03	1.82	1.29	3.11
Glyphosate 3lbs a.e	pt	4.52					0.07	4.59		4.59
Dual Magnum	pt	13.01					0.20	13.21		13.21
Spray (Broadcast)	60'		0.28	0.20	0.41		0.01	0.90	0.65	1.55
Dimilin 2L	oz	2.22					0.02	2.24		2.24
Quadris Top	oz	8.64					0.10	8.74		8.74
Surfactant	pt	0.27						0.27		0.27
Spray (Broadcast)	60'		0.55	0.40	0.84		0.02	1.81	1.29	3.10
Prevathon	oz	17.50					0.20	17.70		17.70
Spray (Broadcast)	60'		0.41	0.30	0.62		0.01	1.34	0.97	2.31
Baythroid XL	oz	4.07					0.05	4.12		4.12
Header -Soybean	25' Flex		2.79	4.23	2.55		0.04	9.61	14.55	24.16
Haul Soybeans	bu	6.75					0.03	6.78		6.78
Grain Cart Soybean	700 bu		0.42	0.33	0.52			1.27	1.12	2.39
TOTALS		227.22	6.93	8.67	9.01	0.00	5.27	257.10	27.50	284.60

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. The budget does not include a second Fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre.

Table 8.E Estimated monthly income and expense flows per acre
Soybeans after wheat, RR, no-till, 12R 30"
Non-Delta Area, Mississippi, 2016

ITEM	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
	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	224.50
DIRECT EXPENSES												
FERTILIZERS	37.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10	0.00	8.64	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.73	17.53	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.79	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	0.27	0.00	0.00
CUSTOM FERTILIZE	7.00	0.00	0.00	0.00	0.00	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	6.75
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.23	0.84	1.87	0.00	3.07
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	0.00	0.00	1.93	0.55	1.24	0.00	3.21
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.81	0.40	0.90	0.00	4.56
INTEREST ON OP. CAP.	2.02	0.00	0.00	0.00	0.00	0.00	0.00	2.36	0.41	0.41	0.00	0.07
TOTAL DIRECT EXPENSES	46.79	0.00	0.00	0.00	0.00	0.00	0.00	128.80	26.73	37.12	0.00	17.66
NET INCOME	-46.79	0.00	0.00	0.00	0.00	0.00	0.00	-128.80	-26.73	-37.12	0.00	206.84
NET INCOME TO DATE	-46.79	-46.79	-46.79	-46.79	-46.79	-46.79	-46.79	-175.59	-202.32	-239.44	-239.44	-32.60

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. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from $10 to $18 plus application cost per acre
* Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre
Soybeans after wheat, RR, no-till, 12R 30"
Non-Delta Area, Mississippi, 2016

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.73	7.18	7.63	8.08	8.53	8.98	9.42	9.87	10.32	10.77	11.22
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-169	-163	-158	-152	-147	-141	-135	-130	-124	-119	-113
			-197	-191	-185	-180	-174	-168	-163	-157	-152	-146	-140
60	15.00	bu	-153	-146	-139	-133	-126	-119	-112	-106	-99	-92	-86
			-180	-174	-167	-160	-153	-147	-140	-133	-126	-120	-113
70	17.50	bu	-137	-129	-121	-113	-105	-97	-90	-82	-74	-66	-58
			-164	-156	-148	-141	-133	-125	-117	-109	-101	-93	-86
80	20.00	bu	-121	-112	-103	-94	-85	-76	-67	-58	-49	-40	-31
			-148	-139	-130	-121	-112	-103	-94	-85	-76	-67	-58
90	22.50	bu	-104	-94	-84	-74	-64	-54	-44	-34	-24	-13	-3
			-132	-122	-112	-102	-91	-81	-71	-61	-51	-41	-31
100	25.00	bu	-88	-77	-66	-55	-43	-32	-21	-10	1	12	23
			-116	-105	-93	-82	-71	-60	-48	-37	-26	-15	-3
110	27.50	bu	-72	-60	-47	-35	-23	-10	1	13	26	38	50
			-100	-87	-75	-63	-50	-38	-25	-13	-1	11	23
120	30.00	bu	-56	-42	-29	-15	-2	10	24	37	51	64	78
			-83	-70	-56	-43	-30	-16	-3	10	23	37	50
130	32.50	bu	-40	-25	-11	3	18	32	47	61	76	91	105
			-67	-53	-38	-23	-9	5	19	34	48	63	78
140	35.00	bu	-24	-8	7	23	38	54	70	85	101	117	133
			-51	-35	-20	-4	11	26	42	58	74	89	105
150	37.50	bu	-7	8	25	42	59	76	93	109	126	143	160
			-35	-18	-1	15	31	48	65	82	99	116	132

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---- Imp.	P.U.	Total Direct	--Fixed--- Imp.	P.U.	Total Cost
			dollars	hours	years	hr/ac	$/acre							
Bed-Paratill Fold	8R-38	MFWD 225	54,400	150	12	0.080	1.08	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---- Imp.	P.U.	Total Direct	--Fixed--- Imp.	P.U.	Total Cost
			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---- Imp.	P.U.	Total Direct	--Fixed--- Imp.	P.U.	Total Cost
			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---- Imp.	P.U.	Total Direct	--Fixed--- Imp.	P.U.	Total Cost
			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---- Imp.	P.U.	Total Direct	--Fixed--- Imp.	P.U.	Total Cost
			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 Ropewick)	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---- Imp.	P.U.	Total Direct	--Fixed--- Imp.	P.U.	Total Cost
			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			Dithane F-45	qt	8.52
Crop Oil Conc.(Pet.	pt	3.86	Dithane Rainshield	pt	3.96
Crop Oil Conc.(Veg.)	pt	4.44	Enable 2F	oz	2.02
Drift/Defoamer	pt	2.13	Headline EC	oz	3.79
Dyne-A-Pak	pt	5.51	Headline SC	oz	3.69
MSO	pt	3.00	Manzate 75 DF	lb	4.81
Spreader Sticker	pt	3.54	Moncut 70 DF	lb	33.30
Surfactant	pt	5.35	Prevail	lb	28.50
CLEANING			Propimax EC	pt	11.94
Cleaning Peanuts	ton	18.00	Prosaro	oz	2.77
CROP CONSULTANT			Provost	oz	2.34
Corn Consultant	acre	7.00	Quadris	oz	3.05
Cotton Consultant	acre	8.00	Quadris Top	oz	2.16
Rice Consultant	acre	8.00	Quilt	pt	23.79
Soybeans Consultant	acre	7.00	Quilt XCEL	pt	31.47
Wheat Consultant	acre	5.00	Ridomil Gold	oz	6.41
CUSTOM FERTILIZE			Ridomil Gold PC GR	lb	5.30
App Fert by Air	cwt	7.00	Rovral 4F	pt	11.14
App Fert by Air(Mi	appl	7.00	Stiletto	oz	0.58
Custom Apply Fert	acre	7.00	Stratego 250EC	pt	25.58
CUSTOM LIME			Stratego YLD	oz	5.04
Lime (Spread)	ton	46.00	Tilt 3.6 EC	oz	0.86
CUSTOM PLANT			Tilt/ Bravo SE	oz	0.38
Custom Plant	acre	13.00	Uniform	oz	4.89
Custom Plant Air	cwt	7.00	Vitavax RTU-Thiram	oz	0.40
CUSTOM SPRAY			GINNING		
App by Air (2 gal)	appl	4.00	Gin & Haul	lb	0.11
App by Air (3 gal)	appl	5.00	GROWTH REGULATORS		
App by Air (5 gal)	appl	6.50	Early Harvest PGR	oz	1.55
App by Air (10 gal)	appl	8.75	Mepex	oz	0.10
Custom Spray Ground	acre	7.50	Mepex Gin Out	oz	0.12
Custom Spray Self Pr	acre	6.25	Mepichlor 4.2%	oz	0.11
Custom Spray Tractor	acre	7.75	Mepiquat	oz	0.11
DRYING			Mepiquat Extra	oz	0.11
Dry Corn	bu	0.19	Pentia	pt	5.94
Dry Grain Sorghum	cwt	0.25	Pix Plus	oz	0.19
Dry Peanuts	ton	24.00	Stance	oz	1.18
Dry Rice	bu	0.40	HARVEST AIDS		
ERADICATION FEE			Adios	oz	1.27
Eradication	acre	1.00	Aim 2EC	oz	5.46
FERTILIZERS			Ammonium Sulfate	lb	0.24
Amm Sulfate (21% N)	cwt	17.25	CottonQuik	pt	5.01
Boron Plus	pt	4.24	Def 6	pt	8.25
Fert 10-34-0	cwt	32.50	Def/Folex	pt	9.99
Fert 41-0-0-4	cwt	20.50	Defol 3	gal	3.45
Lime	ton	36.00	Defol 5	gal	6.55
NBPT	pt	9.88	Dropp SC	oz	1.60
Phosphorus(46% P2O5)	cwt	25.00	ET	pt	23.98
Potash (60% K2O)	cwt	21.27	Ethephon 6E	pt	4.69
Sulfur 90%	lb	0.34	Finish 6	pt	8.93
Sulfur Plus	pt	2.62	First Pick	pt	3.99
SuperMax AMS	pt	2.67	Flash	pt	4.68
UAN (32% N)	cwt	15.95	Folex 6EC	pt	9.92
UAN + Sulfur (28%)	cwt	16.33	Freefall SC	oz	1.30
UAN 1%	pt	0.00	Ginstar EC	pt	30.60
Urea, Solid (46% N)	cwt	20.83	Gramoxone SL	oz	0.31
Zinc Plus	pt	3.00	Paraquat	oz	0.27
FUNGICIDES			Prep	pt	3.32
Abound	pt	32.53	Sharpen	oz	6.23
Alfa Guard	lb	1.62	Sodium Chlorate 3L	gal	3.50
Allegiance Flowable	pt	55.70	Sodium Chlorate 5L	gal	5.57
Apron Maxx RTA	oz	0.86	TDZ SC	oz	0.79
Apron Maxx RTA+Moly	pt	16.84	Thidiazuron 4lb	oz	0.79
Apron XL LS	oz	6.98	Tribufos 6lb	pt	9.90
Artisan	oz	1.02	Vacate	oz	1.17
Bravo Ultrex	lb	6.93	HAULING		
Bravo Weather Stick	pt	5.27	Haul Corn	bu	0.23
Captan 50 WP	lb	4.03			(continued)
Cotton Seed Trt.	acre	20.00			
CruiserMaxx	oz	4.44			

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
Glyfos	pt	1.80	Steadfast	oz	12.32
Glyfos 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 ll	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 Contrac 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	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 The forward contract price for grain sorghum is 95% of the forward contract price for corn. The 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 1/2-mile center pivot system
530-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				0.07			0.07		0.07
Maintenance										
IRRIGATE LABOR	hour				0.27		0.01	0.28		0.28
Apply Water										
IRRIGATE LABOR	hour				0.04			0.04		0.04
Apply Water										
IRRIGATE LABOR	hour				0.05			0.05		0.05
Apply Water										
IRRIGATE LABOR	hour				0.04			0.04		0.04
Pivot, 1/2 CP	each			6.87			0.13	7.00	27.56	34.56
Well & Pump, 1/2 CP	each			0.95			0.02	0.97	2.81	3.78
Engine, 1/2 CP, 164	each								3.85	3.85
June Irr. 3app@.75"	ac-in		9.84	0.54			0.19	10.57		10.57
July Irr. 4app@.75"	ac-in		13.12	0.72			0.21	14.05		14.05
Aug Irr. 3app@.75"	ac-in		9.84	0.54			0.12	10.50		10.50
TOTALS		0.00	32.80	9.62	0.47	0.00	0.68	43.57	34.22	77.79

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

Appendix Table 9. Estimated costs for field operations, per acre
Irrigation with a contour flood system
80-acre system, 13.5 ac-in., Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	OP INPUT	DIRECT COST FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
		dollars								
Set Up Engine										
IRRIGATE LABOR	hour				0.45		0.01	0.46		0.46
Build Outside Levee										
Levee Pull (1m/80a)	8 blade		0.28	0.10	0.22		0.01	0.61	0.64	1.25
Survey & Mark Levees	acre	2.25					0.04	2.29		2.29
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.37	0.14	0.29		0.02	0.82	0.86	1.68
Butt Levees										
Blade-Box	6'-7'		0.27	0.07	0.27		0.01	0.62	0.37	0.99
IRRIGATE LABOR	hour				0.68		0.01	0.69		0.69
Apply Water										
IRRIGATE LABOR	hour				0.11			0.11		0.11
Tear Down Levees										
Levee Splitter (1/80	32"		0.26	0.08	0.22		0.01	0.57	0.47	1.04
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.37	0.14	0.29		0.01	0.81	0.86	1.67
Butt Levees										
Blade-Box	6'-7'		0.27	0.07	0.27		0.01	0.62	0.37	0.99
IRRIGATE LABOR	hour				0.68		0.01	0.69		0.69
Apply Water										
IRRIGATE LABOR	hour				0.11			0.11		0.11
Tear Down Levees										
Levee Splitter (1/80	32"		0.26	0.08	0.22		0.01	0.57	0.47	1.04
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.37	0.14	0.29		0.01	0.81	0.86	1.67
Butt Levees										
Blade-Box	6'-7'		0.27	0.07	0.27		0.01	0.62	0.37	0.99
IRRIGATE LABOR	hour				0.68		0.01	0.69		0.69
Apply Water										
IRRIGATE LABOR	hour				0.11			0.11		0.11
Tear Down Levees										
Levee Splitter (1/80	32"		0.26	0.08	0.22		0.01	0.57	0.47	1.04
Tear Down Levees										
Levee Splitter (1/80	32"		0.19	0.06	0.17			0.42	0.34	0.76
Land Forming ($113)	each								8.02	8.02
Well & Pump, Flood	each			4.88			0.09	4.97	14.41	19.38
Engine, CF, 75	each								16.75	16.75
June Irrigation	ac-in		7.33	2.61			0.19	10.13		10.13
July Irrigation	ac-in		7.33	2.61			0.15	10.09		10.09
August Irrigation	ac-in		7.33	2.61			0.11	10.05		10.05
TOTALS		2.25	25.16	13.74	5.55	0.00	0.73	47.43	45.26	92.69

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

Appendix Table 10. Estimated costs for field operations, per acre
Early soybeans irrigated with roll-out pipe
160-acre system, 9 ac-in., Delta Area, Mississippi, 2016

OPERATION/ OPERATING INPUT	SIZE/ UNIT	OP INPUT	DIRECT COST FUEL	R&M	LABOR	LEASE	INTER	TOTAL	FIXED COST	TOTAL COST
					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
Pick Up Pipe										
Pipe Spool 160ac	1/4m roll		0.25	0.10	0.59			0.94	0.77	1.71
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, ESB	each								8.07	8.07
1st June Irrigation	ac-in		4.89	1.26			0.09	6.24		6.24
2nd June Irrigation	ac-in		4.89	1.26			0.09	6.24		6.24
July Irrigation	ac-in		4.89	1.26			0.07	6.22		6.22
TOTALS		8.58	15.96	6.76	4.36	0.00	0.53	36.19	55.30	91.49

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

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