

**SOYBEANS  
2018  
PLANNING BUDGETS**

**Mississippi State University  
Department of Agricultural Economics  
Budget Report 2017-02**

**October 2017**



## Foreword

This report is designed to provide necessary planning data to farmers, research and extension staffs, lending agencies, and others in agriculture. Readers are cautioned that returns presented are labeled "**Returns Above Specified Expenses.**" Estimated costs for land, management, and general farm overhead are not included in this report. The exception is unallocated labor, which is included. "**Returns Above Direct Expenses**" should be used in making 2018 planning decisions. This would be a one-year short-run decision. Decisions beyond one year, or long-run decisions, should be based on "**Returns Above Specified Expenses.**"

## Acknowledgments

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

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.

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

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# 2018 Planning Budgets

## Budgets for Agricultural Enterprises

This publication provides economic and technical information in the form of enterprise budgets for a major crop produced by Mississippi farmers. A multidisciplinary approach involving researchers and extension personnel was used to determine production practices and input quantities, and to estimate costs and returns for each enterprise (14). The purpose of this section is to present the methods and procedures used to calculate costs and returns for each budget included in this publication.

Enterprise budgets represent a type of information that can be used by a wide variety of individuals in making decisions in the food and fiber industry. They are used:

- by farmers for planning,
- by extension personnel in providing educational programs to farmers,
- by lenders as a basis for credit,
- to provide basic data for research, and
- to inform non-farmers of the costs incurred by farmers in the production of food and fiber crops.

A budget should be prepared with a specific objective in mind. The budgets in this report were prepared to provide general information for several different uses. They provide information concerning general levels of costs and returns which will need to be adjusted for specific situations. Most users should think of these budgets as a first approximation and then make appropriate adjustments using the "Your Farm" column provided on each budget to add, delete, or change costs or incomes to reflect their specific situations.

## Methods and Procedures

### Production Practices

The production practices listed in each budget are the result of a combined effort by researchers and extension personnel to represent those practices that producers could use in a specific production system. Producers might use different practices in their own operations. If different types and quantities of operating inputs are to be used, then the budgeted expenses should be changed to more accurately reflect actual input usage. The Mississippi Agricultural Statistics Service conducts a survey of producers of major field crops in Mississippi. Data collected from producers are a part of the information used in selecting the practices included in each budget.

Committees made up of appropriate disciplines from the Mississippi Agricultural and Forestry Experiment Station, the Mississippi State University Extension Service, and the U.S. Department of Agriculture review and update the practices in the budgets every year. The updates are based on the collective judgment of the committee members. Quantities of materials and individual production practices budgeted are based on survey data from producers and/or generally accepted recommendations by committee members.

### Machinery

Machinery manufacturers form the basis for machinery prices used in these publications. Prices by size of equipment are determined from the most common sales in each category as reported by machinery dealers. Prices used in the budgets reflect prices paid by farmers in 2017. (Appendix Tables 1, 2, and 3).

A performance rate reflects the time required to perform a given task or operation and is expressed as that part of an hour per acre. Previous studies and expert knowledge of the equipment committee members are used to estimate performance rates for new and larger equipment (1, 4, 5, 6, 7, 9, and 13).

The hours of annual use have been modified based on information collected from the cited studies (3, 4, 6, and 7).

Repairs and maintenance as a percentage of new cost are estimated for the life of the equipment and include oil and lubricants (1, 4, and 6).

### Estimates of Direct Costs

Direct costs include estimated costs of repairs and maintenance (R&M) for all machinery and include fuel costs for powered machinery (Appendix Tables 1, 2, and 3). Direct costs are estimated on an hourly basis and are then converted to a per-acre basis using the performance rate for the particular operation. R&M costs for towed equipment and powered equipment are estimated as follows:

$$RPH = \frac{RLC \times RP}{THL}$$

$$RPA = RPH \times PR$$

where:

RPH = R&M cost per hour of use  
 RLC = Replacement cost of machine  
 RP = R&M percentage (percent of RLC)  
 THL = Total hours of machine life  
 RPA = R&M cost per acre  
 PR = Performance rate

Direct costs include an estimate of fuel cost based on average fuel consumption per hour of use for the power unit. Other components of direct costs include quantities of materials used in production multiplied by the price per unit of these inputs, custom rates, hourly wage rates, and interest charges on operating capital (Appendix Tables 4, 5, and 6).

The labor wage rate per hour includes social security, accident and unemployment insurance, and some perquisites (11). Labor costs are estimated for four labor categories: operator labor, hand labor, irrigation labor, and unallocated labor. Operator labor and hand labor represent estimates of labor required to perform the in-field tasks. Operator labor is that labor

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

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

### Estimates of Fixed Costs

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

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

where:

CRF = Capital recovery factor  
 IIR = Intermediate-term interest rate  
 TYL = Total years of life

$$CRCPY = [(RLC - SV) \times CRF] + (SV \times IIR)$$

where:

CRCPY = Capital recovery charge per year  
 RLC = Replacement cost  
 SV = Salvage value (at end of useful life)



This value is then converted to its per-hour and per-acre equivalent values:

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

$$\text{CRCPA} = \text{CRCPH} \times \text{PR}$$

where:

CRCPH = Capital recovery charge per hour

HAU = Hours of annual use

CRCPA = Capital recovery charge per acre

PR = Performance rate

### Estimates of Returns

It is difficult to estimate crop yields that may be expected for a particular production system in a given year. Crop yields used in the budgets are representative of historical yields modified to match the production system used to produce the yield. All yields including conventional, no-tillage, irrigation, and double-cropping are tempered with unpublished research and judgments of the commodity committees. Producers should use yield estimates that are reflective of their own operation.

To estimate returns, a price for the commodity must be used. Individual producers must determine their own expected price for the commodity. Commodity prices used in this report represent the higher of a calculated forward contract price or the loan rate that was applicable for the 2017 crop year. Government payments for commodities are not included in the budgets except to the extent that they are included in loan rates.

The futures price for an appropriate contract month is determined by averaging the closing prices for the first five trading days in October. The basis is determined by subtracting the average daily cash price for the month of October from the average daily closing price of the specified harvest month futures contract. These average futures prices and the basis adjustments are presented in Appendix Table 7.

A special table is presented to illustrate the effects of alternative levels of yields and prices on net returns. The budgeted yield and the budgeted price are used as base values (100 percent). Yields are then varied from 50 to 150 percent of the base yield while prices are varied from 75 to 125 percent of the base price. Net returns are computed for each combination of yield and price.

### Irrigation Costs

Estimated costs of various irrigation systems are presented in Appendix Tables 8, 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, full-season, RR, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	3.0000	19.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.51	50.0000	75.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.0000	3.28	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	42.0000	11.34	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3302	4.46	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR	hour	13.51	0.3892	5.26	_____
DIESEL FUEL					
Tractors	gal	1.80	3.8252	6.89	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	4.81	1.0000	4.81	_____
Tractors	acre	2.18	1.0000	2.18	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	9.09	1.0000	9.09	_____
TOTAL DIRECT EXPENSES				342.02	_____
FIXED EXPENSES					
Implements	acre	9.73	1.0000	9.73	_____
Tractors	acre	13.66	1.0000	13.66	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				37.16	_____
TOTAL SPECIFIED EXPENSES				379.18	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	42.0000	415.80	_____
				-----	
TOTAL INCOME				415.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	96.26	1.0000	96.26	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
SEED/PLANTS	acre	75.50	1.0000	75.50	_____
ADJUVANTS	acre	3.28	1.0000	3.28	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
OPERATOR LABOR	hour	13.51	0.4324	5.84	_____
UNALLOCATED LABOR	hour	13.51	0.3892	5.26	_____
DIESEL FUEL	gal	1.80	5.2188	9.40	_____
REPAIR & MAINTENANCE	acre	10.48	1.0000	10.48	_____
INTEREST ON OP. CAP.	acre	9.09	1.0000	9.09	_____
				-----	
TOTAL DIRECT EXPENSES				342.02	_____
RETURNS ABOVE DIRECT EXPENSES				73.78	_____
TOTAL FIXED EXPENSES				37.16	_____
				-----	
TOTAL SPECIFIED EXPENSES				379.18	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				36.62	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
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	oz					32.0000				
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				
Optimize	oz					1.4000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
Zidua	oz					1.5000				
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				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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
<b>TOTALS</b>							0.43	0.43	0.52	0.38

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Subsoiler	3 shank		0.85	0.33	1.05			0.11	2.34	1.84	4.18
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Field Cultivate Fld	24'		1.30	0.86	1.60			0.18	3.94	4.48	8.42
App by Air ( 5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Select Max	pt	12.64						0.40	13.04		13.04
Valor SX	oz	9.14						0.29	9.43		9.43
Surfactant	pt	1.31						0.04	1.35		1.35
Plant & Pre-Folding	12R-30		1.41	2.23	2.34			0.14	6.12	6.22	12.34
Soybean Seed RR2	lb	75.50						1.79	77.29		77.29
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Soybeans Consultant	acre	6.50						0.13	6.63		6.63
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Prefix	pt	13.06						0.26	13.32		13.32
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Zidua	oz	13.58						0.27	13.85		13.85
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Acephate 90SP	lb	5.57						0.04	5.61		5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	11.34						0.04	11.38		11.38
Grain Cart Soybean	700 bu		0.44	0.35	0.55			0.01	1.35	1.25	2.60
TOTALS		301.08	9.40	10.48	11.97	0.00	9.09	342.02	37.16	379.18	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	415.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.06	0.00	29.60	35.60	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	5.57	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.31	0.00	1.31	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.76	0.00	0.00	0.00	0.00	0.00	2.34	1.70	0.00	0.00	0.00	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	3.86	0.00	0.00	0.00	0.00	0.00	1.41	1.18	0.00	0.00	0.00	2.95
REPAIR & MAINTENANCE	2.67	0.00	0.00	0.00	0.00	0.00	2.23	0.86	0.00	0.00	0.00	4.72
INTEREST ON OP. CAP.	3.76	0.00	0.00	0.00	1.23	0.00	2.89	0.92	0.00	0.00	0.20	0.09
TOTAL DIRECT EXPENSES	82.75	0.00	0.00	0.00	40.10	0.00	125.08	46.76	0.00	0.00	25.06	22.27
NET INCOME	-82.75	0.00	0.00	0.00	-40.10	0.00	-125.08	-46.76	0.00	0.00	-25.06	393.53
NET INCOME TO DATE	-82.75	-82.75	-82.75	-82.75	-122.85	-122.85	-247.93	-294.69	-294.69	-294.69	-319.75	73.78

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Non-irrigated, Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-180 -217	-170 -207	-159 -196	-149 -186	-138 -175	-128 -165	-118 -155	-107 -144	-97 -134	-86 -124	-76 -113
60	25.20	bu	-150 -187	-137 -175	-125 -162	-112 -150	-100 -137	-87 -125	-75 -112	-63 -100	-50 -87	-38 -75	-25 -62
70	29.40	bu	-120 -157	-105 -142	-91 -128	-76 -113	-62 -99	-47 -84	-32 -70	-18 -55	-3 -41	10 -26	25 -11
80	33.60	bu	-90 -127	-73 -110	-57 -94	-40 -77	-23 -60	-7 -44	9 -27	26 -11	42 5	59 22	76 38
90	37.80	bu	-60 -97	-41 -78	-22 -59	-4 -41	14 -22	33 -3	52 14	70 33	89 52	108 71	126 89
100	42.00	bu	-30 -67	-9 -46	11 -25	32 -4	52 15	73 36	94 57	115 78	136 98	156 119	177 140
110	46.20	bu	-0 -37	22 -14	45 8	68 31	91 54	114 77	137 99	159 122	182 145	205 168	228 191
120	50.40	bu	29 -7	54 17	79 42	104 67	129 92	154 117	179 142	204 167	229 192	254 217	279 242
130	54.60	bu	59 22	86 49	114 76	141 103	168 130	195 157	222 184	249 212	276 239	303 266	330 293
140	58.80	bu	90 52	119 81	148 111	177 140	206 169	235 198	264 227	293 256	322 285	351 314	381 343
150	63.00	bu	120 82	151 114	182 145	213 176	244 207	275 238	307 270	338 301	369 332	400 363	431 394

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

Table 2.A Estimated costs per acre  
Soybeans, full-season, RR, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	4.0000	26.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.51	50.0000	75.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.1000	3.61	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	60.0000	16.20	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4713	6.36	_____
Harvesters	hour	13.51	0.1021	1.38	_____
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	13.51	0.4454	6.02	_____
DIESEL FUEL					
Tractors	gal	1.80	5.2753	9.51	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Roll-Out Pipe Irr.	gal	1.80	7.3316	13.20	_____
REPAIR & MAINTENANCE					
Implements	acre	5.47	1.0000	5.47	_____
Tractors	acre	2.98	1.0000	2.98	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	10.15	1.0000	10.15	_____
TOTAL DIRECT EXPENSES				412.40	_____
FIXED EXPENSES					
Implements	acre	11.96	1.0000	11.96	_____
Tractors	acre	18.75	1.0000	18.75	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Roll-Out Pipe Irr.	acre	53.42	1.0000	53.42	_____
TOTAL FIXED EXPENSES				97.90	_____
TOTAL SPECIFIED EXPENSES				510.30	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	60.0000	594.00	_____
				-----	
TOTAL INCOME				594.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	96.26	1.0000	96.26	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	75.50	1.0000	75.50	_____
ADJUVANTS	acre	3.61	1.0000	3.61	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
IRRIGATE LABOR	hour	9.06	0.3625	3.30	_____
OPERATOR LABOR	hour	13.51	0.5735	7.74	_____
UNALLOCATED LABOR	hour	13.51	0.4454	6.02	_____
DIESEL FUEL	gal	1.80	14.0006	25.22	_____
REPAIR & MAINTENANCE	acre	18.83	1.0000	18.83	_____
INTEREST ON OP. CAP.	acre	10.15	1.0000	10.15	_____
				-----	
TOTAL DIRECT EXPENSES				412.40	_____
RETURNS ABOVE DIRECT EXPENSES				181.60	_____
TOTAL FIXED EXPENSES				97.90	_____
				-----	
TOTAL SPECIFIED EXPENSES				510.30	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				83.70	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
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	oz					32.0000				
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				
Optimize	oz					1.4000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
Zidua	oz					1.5000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Quadris Top SBX	oz					7.0000				
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				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Subsoiler	3 shank		0.85	0.33	1.05			0.11	2.34	1.84	4.18
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Field Cultivate Fld	24'		1.30	0.86	1.60			0.18	3.94	4.48	8.42
Bed/Lister-Roll-Fold	12R-30		1.30	0.87	1.60			0.18	3.95	3.79	7.74
App by Air ( 5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Select Max	pt	12.64						0.40	13.04		13.04
Valor SX	oz	9.14						0.29	9.43		9.43
Surfactant	pt	1.31						0.04	1.35		1.35
Plant & Pre-Folding	12R-30		1.41	2.23	2.34			0.14	6.12	6.22	12.34
Soybean Seed RR2	lb	75.50						1.79	77.29		77.29
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Soybeans Consultant	acre	6.50						0.13	6.63		6.63
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Prefix	pt	13.06						0.26	13.32		13.32
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Zidua	oz	13.58						0.27	13.85		13.85
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Quadris Top SBX	oz	19.25						0.23	19.48		19.48
Surfactant	pt	0.33							0.33		0.33
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Acephate 90SP	lb	5.57						0.04	5.61		5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	16.20						0.06	16.26		16.26
Grain Cart Soybean	700 bu		0.44	0.35	0.55			0.01	1.35	1.25	2.60
Roll-Out Pipe Irr.	acre	8.25	14.52	7.48	4.36			0.55	35.16	56.95	92.11
TOTALS		340.27	25.22	18.83	17.93	0.00	10.15	412.40	97.90	510.30	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	594.00
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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.06	0.00	29.60	35.60	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	5.57	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.31	0.00	1.31	0.00	0.00	0.33	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.87	0.00	0.00	0.00	0.00	0.00	2.34	1.93	2.80	0.23	0.00	3.76
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	5.83	0.00	0.00	0.00	0.00	0.00	1.41	1.18	9.15	4.40	0.00	3.25
REPAIR & MAINTENANCE	3.85	0.00	0.00	0.00	0.00	0.00	2.23	0.86	5.73	1.31	0.00	4.85
INTEREST ON OP. CAP.	4.01	0.00	0.00	0.00	1.23	0.00	2.89	0.92	0.41	0.38	0.20	0.11
TOTAL DIRECT EXPENSES	88.26	0.00	0.00	0.00	40.10	0.00	125.08	46.99	26.34	32.40	25.06	28.17
NET INCOME	-88.26	0.00	0.00	0.00	-40.10	0.00	-125.08	-46.99	-26.34	-32.40	-25.06	565.83
NET INCOME TO DATE	-88.26	-88.26	-88.26	-88.26	-128.36	-128.36	-253.44	-300.43	-326.77	-359.17	-384.23	181.60

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37		
PERCENT	YIELD	UNIT	dollars										
50	30.00	bu	-181 -279	-166 -264	-151 -249	-136 -234	-122 -220	-107 -205	-92 -190	-77 -175	-62 -160	-47 -145	-33 -130
60	36.00	bu	-138 -236	-120 -218	-102 -200	-85 -183	-67 -165	-49 -147	-31 -129	-13 -111	3 -93	21 -76	39 -58
70	42.00	bu	-95 -193	-74 -172	-54 -151	-33 -131	-12 -110	8 -89	29 -68	49 -48	70 -27	91 -6	112 14
80	48.00	bu	-52 -150	-28 -126	-5 -103	18 -79	42 -55	66 -31	89 -8	113 15	137 39	161 63	184 86
90	54.00	bu	-9 -107	16 -80	43 -54	70 -27	97 -0	123 25	150 52	177 79	204 106	230 132	257 159
100	60.00	bu	33 -64	62 -35	92 -5	122 24	151 54	181 83	211 113	241 143	270 172	300 202	330 232
110	66.00	bu	76 -21	108 10	141 43	174 76	206 108	239 141	272 174	304 206	337 239	370 272	402 304
120	72.00	bu	118 21	154 56	190 92	225 127	261 163	297 199	332 234	368 270	404 306	439 341	475 377
130	78.00	bu	161 63	200 102	239 141	277 179	316 218	354 257	393 295	432 334	470 372	509 411	547 450
140	84.00	bu	204 106	246 148	287 190	329 231	371 273	412 314	454 356	495 397	537 439	579 481	620 522
150	90.00	bu	247 149	292 194	336 238	381 283	425 328	470 372	515 417	559 461	604 506	648 550	693 595

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

Table 3.A Estimated costs per acre  
Soybeans, full-season, RR, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	5.0000	32.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.51	50.0000	75.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.1000	3.61	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
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	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4582	6.21	_____
Harvesters	hour	13.51	0.1021	1.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR	hour	13.48	0.3218	4.34	_____
DIESEL FUEL					
Tractors	gal	1.80	4.3236	7.80	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Contour Flood Irr.	gal	1.80	10.9974	19.80	_____
REPAIR & MAINTENANCE					
Implements	acre	4.76	1.0000	4.76	_____
Tractors	acre	2.39	1.0000	2.39	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	10.06	1.0000	10.06	_____
TOTAL DIRECT EXPENSES				427.34	_____
FIXED EXPENSES					
Implements	acre	9.06	1.0000	9.06	_____
Tractors	acre	15.01	1.0000	15.01	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Contour Flood Irr.	acre	42.34	1.0000	42.34	_____
TOTAL FIXED EXPENSES				80.18	_____
TOTAL SPECIFIED EXPENSES				507.52	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	53.0000	524.70	_____
				-----	
TOTAL INCOME				524.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	32.50	1.0000	32.50	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	77.88	1.0000	77.88	_____
INSECTICIDES	acre	32.05	1.0000	32.05	_____
SEED/PLANTS	acre	75.50	1.0000	75.50	_____
ADJUVANTS	acre	3.61	1.0000	3.61	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	14.31	1.0000	14.31	_____
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1100	1.00	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	13.51	0.5604	7.59	_____
UNALLOCATED LABOR	hour	13.48	0.3218	4.34	_____
DIESEL FUEL	gal	1.80	16.7147	30.11	_____
REPAIR & MAINTENANCE	acre	24.44	1.0000	24.44	_____
INTEREST ON OP. CAP.	acre	10.06	1.0000	10.06	_____
				-----	
TOTAL DIRECT EXPENSES				427.34	_____
RETURNS ABOVE DIRECT EXPENSES				97.36	_____
TOTAL FIXED EXPENSES				80.18	_____
				-----	
TOTAL SPECIFIED EXPENSES				507.52	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				17.18	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
							-----hours-----			
Soil Test	acre			0.33	Nov	0.3330				
Disk Harrow	24'	MFWD 190	0.081	1.00	Nov		0.08	0.08	0.08	0.07
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Valor SX	oz					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
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				
Optimize	oz					1.4000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Quadris Top SBX	oz					7.0000				
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				
IncidentalPestTrt \$8	acre					1.0000				
App by Air ( 5 gal)	appl			1.00	Sep	1.0000				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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							0.56	0.56	0.98	0.32

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Disk Harrow	24'		1.44	1.38	2.11			0.23	5.16	4.78	9.94
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Spray (Broadcast)	60'		0.59	0.43	0.85			0.07	1.94	1.45	3.39
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
Select Max	pt	12.64						0.45	13.09		13.09
Surfactant	pt	1.31						0.05	1.36		1.36
Valor SX	oz	9.14						0.33	9.47		9.47
Soybeans Consultant	acre	6.50						0.15	6.65		6.65
Plant & Pre-Folding	12R-30		1.19	2.16	2.34			0.14	5.83	5.72	11.55
Soybean Seed RR2	lb	75.50						1.79	77.29		77.29
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.04	1.78	1.24	3.02
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Prefix	pt	13.06						0.31	13.37		13.37
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24	3.01
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Quadris Top SBX	oz	19.25						0.30	19.55		19.55
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Acephate 90SP	lb	5.57						0.07	5.64		5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Prevathon	oz	18.48						0.22	18.70		18.70
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06		8.06
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	14.31						0.06	14.37		14.37
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09	2.33
Contour Flood Irr.	acre	2.25	23.01	15.00	5.58			0.75	46.59	49.56	96.15
TOTALS		346.98	30.11	24.44	15.75	0.00	10.06	427.34	80.18	507.52	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

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	524.70
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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	19.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	26.26	0.00	0.00	47.14	4.48	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	24.05	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.31	0.00	0.00	1.31	0.00	0.33	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	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	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.11	0.00	0.00	0.85	0.00	0.00	3.64	2.65	1.58	1.58	0.17	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.44	0.00	0.00	0.59	0.00	0.00	1.69	8.27	7.52	7.52	0.20	2.88
REPAIR & MAINTENANCE	1.38	0.00	0.00	0.43	0.00	0.00	2.55	9.37	2.97	2.97	0.08	4.69
INTEREST ON OP. CAP.	3.45	0.00	0.00	1.06	0.00	0.00	3.51	0.52	0.60	0.60	0.22	0.10
TOTAL DIRECT EXPENSES	76.08	0.00	0.00	30.50	0.00	0.00	151.64	27.54	38.75	49.72	27.96	25.15
NET INCOME	-76.08	0.00	0.00	-30.50	0.00	0.00	-151.64	-27.54	-38.75	-49.72	-27.96	499.55
NET INCOME TO DATE	-76.08	-76.08	-76.08	-106.58	-106.58	-106.58	-258.22	-285.76	-324.51	-374.23	-402.19	97.36

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	-----dollars-----										
50	26.50	bu	-223	-210	-197	-184	-170	-157	-144	-131	-118	-105	-92
			-303	-290	-277	-264	-251	-237	-224	-211	-198	-185	-172
60	31.80	bu	-185	-169	-153	-138	-122	-106	-91	-75	-59	-43	-28
			-265	-249	-234	-218	-202	-186	-171	-155	-139	-123	-108
70	37.10	bu	-147	-129	-110	-92	-74	-55	-37	-19	-0	17	36
			-227	-209	-191	-172	-154	-135	-117	-99	-80	-62	-44
80	42.40	bu	-109	-88	-67	-46	-25	-4	16	37	58	79	100
			-189	-168	-147	-126	-105	-84	-63	-42	-21	-0	20
90	47.70	bu	-71	-48	-24	-0	22	46	69	93	117	140	164
			-151	-128	-104	-81	-57	-33	-10	13	36	60	84
100	53.00	bu	-33	-7	18	44	71	97	123	149	176	202	228
			-113	-87	-61	-35	-9	17	43	69	95	122	148
110	58.30	bu	4	32	61	90	119	148	177	206	234	263	292
			-76	-47	-18	10	39	68	97	125	154	183	212
120	63.60	bu	42	73	104	136	167	199	230	262	293	325	356
			-38	-6	24	56	87	119	150	182	213	245	276
130	68.90	bu	79	114	148	182	216	250	284	318	352	386	420
			-0	33	67	102	136	170	204	238	272	306	340
140	74.20	bu	117	154	191	228	264	301	338	374	411	448	485
			37	74	111	147	184	221	258	294	331	368	404
150	79.50	bu	155	195	234	273	313	352	391	431	470	509	549
			75	114	154	193	232	272	311	351	390	429	469

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

Table 4.A Estimated costs per acre  
Soybeans, double crop after wheat, RR, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	4.0000	26.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.78	6.4000	4.99	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.51	50.0000	75.50	_____
ADJUVANTS					
Surfactant	pt	3.28	0.6000	1.97	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	50.0000	13.50	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.1171	1.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL					
Tractors	gal	1.80	1.3567	2.44	_____
Harvesters	gal	1.80	1.3935	2.51	_____
1/2-mi Pivot Irr.	gal	1.80	16.4057	29.53	_____
REPAIR & MAINTENANCE					
Implements	acre	3.12	1.0000	3.12	_____
Tractors	acre	0.77	1.0000	0.77	_____
Harvesters	acre	3.49	1.0000	3.49	_____
1/2-mi Pivot Irr.	acre	11.57	1.0000	11.57	_____
INTEREST ON OP. CAP.	acre	7.82	1.0000	7.82	_____
TOTAL DIRECT EXPENSES				372.38	_____
FIXED EXPENSES					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	4.85	1.0000	4.85	_____
Harvesters	acre	13.77	1.0000	13.77	_____
1/2-mi Pivot Irr.	acre	41.81	1.0000	41.81	_____
TOTAL FIXED EXPENSES				65.83	_____
TOTAL SPECIFIED EXPENSES				438.21	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	50.0000	495.00	_____
				-----	
TOTAL INCOME				495.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	47.14	1.0000	47.14	_____
INSECTICIDES	acre	37.04	1.0000	37.04	_____
SEED/PLANTS	acre	75.50	1.0000	75.50	_____
ADJUVANTS	acre	1.97	1.0000	1.97	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	13.51	0.2193	2.96	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL	gal	1.80	19.1560	34.48	_____
REPAIR & MAINTENANCE	acre	18.95	1.0000	18.95	_____
INTEREST ON OP. CAP.	acre	7.82	1.0000	7.82	_____
				-----	
TOTAL DIRECT EXPENSES				372.38	_____
RETURNS ABOVE DIRECT EXPENSES				122.62	_____
TOTAL FIXED EXPENSES				65.83	_____
				-----	
TOTAL SPECIFIED EXPENSES				438.21	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				56.79	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
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				
Optimize	oz					1.4000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Prefix	pt					2.0000				
App by Air ( 5 gal)	appl			1.00	Aug	1.0000				
Quadris Top SBX	oz					7.0000				
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				
Bifenthrin	oz					6.4000				
Incidental Pest				1.00	Sep					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	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							0.21	0.21	0.35	0.18

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus(46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Soybeans Consultant	acre	6.50						0.15	6.65		6.65
Plant & Pre-Folding	12R-30		1.41	2.23	2.31			0.12	6.07	6.22	12.29
Soybean Seed RR2	lb	75.50						1.49	76.99		76.99
CruiserMaxx	oz	6.80						0.13	6.93		6.93
Optimize	oz	3.00						0.06	3.06		3.06
Boundary	pt	22.40						0.44	22.84		22.84
Gramoxone SL 2.0	oz	7.20						0.14	7.34		7.34
Surfactant	pt	1.31						0.03	1.34		1.34
Spray (Broadcast)	60'		0.59	0.43	0.84			0.03	1.89	1.45	3.34
Glyphosate 3lbs a.e	oz	4.48						0.07	4.55		4.55
Prefix	pt	13.06						0.21	13.27		13.27
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Quadris Top SBX	oz	19.25						0.23	19.48		19.48
Surfactant	pt	0.33							0.33		0.33
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Acephate 90SP	lb	5.57						0.07	5.64		5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Prevathon	oz	18.48						0.22	18.70		18.70
Surfactant	pt	0.33							0.33		0.33
Bifenthrin	oz	4.99						0.06	5.05		5.05
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06		8.06
Header -Soybean	25' Flex		2.51	4.37	2.57			0.04	9.49	15.10	24.59
Haul Soybeans	bu	13.50						0.05	13.55		13.55
Grain Cart Soybean	700 bu		0.44	0.35	0.54			0.01	1.34	1.25	2.59
1/2-mi Pivot Irr.	acre		29.53	11.57	0.47			0.70	42.27	41.81	84.08
TOTALS		304.40	34.48	18.95	6.73	0.00		7.82	372.38	65.83	438.21

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

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	495.00
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	41.55	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	6.80	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.60	17.54	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	29.04	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.66	0.00	0.00
CUSTOM FERTILIZE	7.50	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	15.32	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	6.50	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	3.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.35	0.89	0.04	0.00	3.11
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	10.27	12.40	8.86	0.00	2.95
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.51	1.17	0.55	0.00	4.72
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	0.00	0.00	0.16	2.79	0.51	0.93	0.11	0.10
TOTAL DIRECT EXPENSES	70.92	0.00	0.00	0.00	0.00	0.00	7.00	144.13	32.51	78.83	14.61	24.38
NET INCOME	-70.92	0.00	0.00	0.00	0.00	0.00	-7.00	-144.13	-32.51	-78.83	-14.61	470.62
NET INCOME TO DATE	-70.92	-70.92	-70.92	-70.92	-70.92	-70.92	-77.92	-222.05	-254.56	-333.39	-348.00	122.62

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-179 -245	-167 -233	-155 -221	-142 -208	-130 -196	-118 -183	-105 -171	-93 -159	-80 -146	-68 -134	-56 -122
60	30.00	bu	-144 -210	-129 -195	-114 -180	-99 -165	-84 -150	-69 -135	-55 -120	-40 -106	-25 -91	-10 -76	4 -61
70	35.00	bu	-108 -174	-91 -156	-73 -139	-56 -122	-39 -104	-21 -87	-4 -70	12 -52	30 -35	47 -18	64 -1
80	40.00	bu	-72 -138	-52 -118	-33 -98	-13 -79	6 -59	26 -39	46 -19	65 0	85 19	105 39	125 59
90	45.00	bu	-36 -102	-14 -80	7 -58	29 -35	52 -13	74 8	96 30	119 53	141 75	163 97	185 120
100	50.00	bu	-1 -66	23 -42	48 -17	73 7	97 32	122 56	147 81	172 106	196 131	221 155	246 180
110	55.00	bu	34 -31	61 -3	89 23	116 50	143 77	170 104	197 132	225 159	252 186	279 213	306 241
120	60.00	bu	70 4	100 34	129 63	159 93	189 123	218 153	248 182	278 212	308 242	337 271	367 301
130	65.00	bu	106 40	138 72	170 104	202 136	234 169	267 201	299 233	331 265	363 297	395 329	427 362
140	70.00	bu	141 76	176 110	211 145	245 180	280 214	315 249	349 284	384 318	419 353	453 387	488 422
150	75.00	bu	177 111	214 149	251 186	289 223	326 260	363 297	400 334	437 371	474 408	511 446	548 483

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

Table 5.A Estimated costs per acre  
Soybeans, full-season, RR, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	2.0000	13.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.6600	12.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.51	50.0000	75.50	_____
ADJUVANTS					
Surfactant	pt	3.28	0.6000	1.97	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	43.0000	11.61	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3128	4.23	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR	hour	13.49	0.3734	5.04	_____
DIESEL FUEL					
Tractors	gal	1.80	3.0592	5.52	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	4.69	1.0000	4.69	_____
Tractors	acre	1.68	1.0000	1.68	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	7.22	1.0000	7.22	_____
TOTAL DIRECT EXPENSES				278.48	_____
FIXED EXPENSES					
Implements	acre	9.30	1.0000	9.30	_____
Tractors	acre	10.65	1.0000	10.65	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				33.72	_____
TOTAL SPECIFIED EXPENSES				312.20	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	43.0000	425.70	_____
				-----	
TOTAL INCOME				425.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.00	1.0000	13.00	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	31.36	1.0000	31.36	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	60.90	1.0000	60.90	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
SEED/PLANTS	acre	75.50	1.0000	75.50	_____
ADJUVANTS	acre	1.97	1.0000	1.97	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1051	0.96	_____
OPERATOR LABOR	hour	13.51	0.4149	5.61	_____
UNALLOCATED LABOR	hour	13.49	0.3734	5.04	_____
DIESEL FUEL	gal	1.80	4.4528	8.03	_____
REPAIR & MAINTENANCE	acre	9.86	1.0000	9.86	_____
INTEREST ON OP. CAP.	acre	7.22	1.0000	7.22	_____
				-----	
TOTAL DIRECT EXPENSES				278.48	_____
RETURNS ABOVE DIRECT EXPENSES				147.22	_____
				-----	
TOTAL FIXED EXPENSES				33.72	_____
				-----	
TOTAL SPECIFIED EXPENSES				312.20	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				113.50	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P2O5)	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	oz					32.0000				
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	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	oz					32.0000				
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	oz					32.0000				
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				
Gramoxone SL	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							0.41	0.41	0.52	0.37

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus(46% P2O5)	cwt	12.38						0.59	12.97	12.97
Potash (60% K2O)	cwt	18.98						0.90	19.88	19.88
Disk Harrow	24'		1.44	1.38	2.11			0.23	5.16	4.78
Field Cultivate Fld	24'		1.10	0.79	1.60			0.17	3.66	4.03
App by Air ( 5 gal)	appl	6.50						0.18	6.68	6.68
Glyphosate 3lbs a.e	oz	4.48						0.12	4.60	4.60
2,4-D Amine 4	pt	4.80						0.13	4.93	4.93
Plant - Folding	12R-30		1.11	1.83	2.18			0.12	5.24	5.00
Soybean Seed RR2	lb	75.50						1.79	77.29	77.29
CruiserMaxx	oz	6.80						0.16	6.96	6.96
Boundary	pt	22.40						0.53	22.93	22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37	7.37
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Prefix	pt	13.06						0.26	13.32	13.32
Soybeans Consultant	acre	6.50						0.13	6.63	6.63
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Spray (Broadcast)	60'		0.50	0.39	0.85			0.01	1.75	1.24
Acephate 90SP	lb	5.57						0.04	5.61	5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10
Haul Soybeans	bu	11.61						0.05	11.66	11.66
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09
TOTALS		241.76	8.03	9.86	11.61	0.00	7.22	278.48	33.72	312.20

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	425.70
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	2.40	0.00
FERTILIZERS	31.36	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.28	29.60	22.02	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	5.57	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.71	0.00	0.00	0.00	0.00	0.00	2.18	1.70	0.00	0.00	0.85	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.54	0.00	0.00	0.00	0.00	0.00	1.11	1.00	0.00	0.00	0.50	2.88
REPAIR & MAINTENANCE	2.17	0.00	0.00	0.00	0.00	0.00	1.83	0.78	0.00	0.00	0.39	4.69
INTEREST ON OP. CAP.	3.14	0.00	0.00	0.00	0.00	0.43	2.80	0.63	0.00	0.00	0.13	0.09
TOTAL DIRECT EXPENSES	69.07	0.00	0.00	0.00	0.00	16.21	121.13	32.63	0.00	0.00	17.00	22.44
NET INCOME	-69.07	0.00	0.00	0.00	0.00	-16.21	-121.13	-32.63	0.00	0.00	-17.00	403.26
NET INCOME TO DATE	-69.07	-69.07	-69.07	-69.07	-69.07	-85.28	-206.41	-239.04	-239.04	-239.04	-256.04	147.22

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-113	-102	-91	-81	-70	-59	-49	-38	-27	-17	-6
			-146	-136	-125	-114	-104	-93	-82	-72	-61	-50	-40
60	25.80	bu	-82	-69	-56	-43	-31	-18	-5	7	19	32	45
			-115	-103	-90	-77	-64	-52	-39	-26	-13	-1	11
70	30.10	bu	-51	-36	-21	-6	8	23	37	52	67	82	97
			-85	-70	-55	-40	-25	-10	4	19	33	48	63
80	34.40	bu	-20	-3	13	30	47	64	81	98	115	132	149
			-54	-37	-20	-3	13	30	47	64	81	98	115
90	38.70	bu	10	29	48	67	86	105	124	144	163	182	201
			-23	-4	14	33	52	72	91	110	129	148	167
100	43.00	bu	40	62	83	104	125	147	168	189	211	232	253
			7	28	49	70	92	113	134	156	177	198	219
110	47.30	bu	71	94	118	141	165	188	212	235	258	282	305
			37	61	84	108	131	154	178	201	225	248	271
120	51.60	bu	102	127	153	178	204	230	255	281	306	332	357
			68	94	119	145	170	196	221	247	272	298	324
130	55.90	bu	133	160	188	216	243	271	299	326	354	382	409
			99	127	154	182	210	237	265	293	320	348	376
140	60.20	bu	163	193	223	253	283	312	342	372	402	432	461
			130	159	189	219	249	279	308	338	368	398	428
150	64.50	bu	194	226	258	290	322	354	386	418	450	481	513
			160	192	224	256	288	320	352	384	416	448	480

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

Table 6.A Estimated costs per acre  
Soybeans, full-season, RR, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	1.0000	6.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.6600	12.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	12.64	1.0000	12.64	_____
Fierce	oz	7.54	3.5000	26.39	_____
Gramoxone SL 2.0	oz	0.15	96.0000	14.40	_____
Boundary	pt	11.20	2.0000	22.40	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Dimilin 2L	oz	1.45	1.0000	1.45	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Baythroid XL	oz	2.65	1.0650	2.82	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.51	50.0000	75.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.4500	4.76	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	40.0000	10.80	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4647	6.27	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1523	1.38	_____
UNALLOCATED LABOR	hour	13.48	0.5102	6.88	_____
DIESEL FUEL					
Tractors	gal	1.80	4.6579	8.40	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	6.17	1.0000	6.17	_____
Tractors	acre	2.58	1.0000	2.58	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	6.95	1.0000	6.95	_____
TOTAL DIRECT EXPENSES				341.85	_____
FIXED EXPENSES					
Implements	acre	11.91	1.0000	11.91	_____
Tractors	acre	16.27	1.0000	16.27	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				41.95	_____
TOTAL SPECIFIED EXPENSES				383.80	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	40.0000	396.00	_____
				-----	
TOTAL INCOME				396.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	31.36	1.0000	31.36	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	102.33	1.0000	102.33	_____
INSECTICIDES	acre	22.75	1.0000	22.75	_____
SEED/PLANTS	acre	75.50	1.0000	75.50	_____
ADJUVANTS	acre	4.75	1.0000	4.75	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1523	1.38	_____
OPERATOR LABOR	hour	13.51	0.5669	7.65	_____
UNALLOCATED LABOR	hour	13.48	0.5102	6.88	_____
DIESEL FUEL	gal	1.80	6.0515	10.91	_____
REPAIR & MAINTENANCE	acre	12.24	1.0000	12.24	_____
INTEREST ON OP. CAP.	acre	6.95	1.0000	6.95	_____
				-----	
TOTAL DIRECT EXPENSES				341.85	_____
RETURNS ABOVE DIRECT EXPENSES				54.15	_____
TOTAL FIXED EXPENSES				41.95	_____
				-----	
TOTAL SPECIFIED EXPENSES				383.80	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				12.20	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
-----hours-----										
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
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
Bed/Lister-Roll-Fold	12R-30	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Fierce	oz					3.5000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
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	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	oz					32.0000				
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	oz					32.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
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				
Gramoxone SL	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							0.56	0.56	0.71	0.51

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.01	3.34	3.34
Lime (Spread)	ton	15.32						0.06	15.38	15.38
Disk Harrow	24'		1.44	1.38	2.11			0.02	4.95	4.78 9.73
Field Cultivate Fld	24'		1.10	0.79	1.60			0.01	3.50	4.03 7.53
Bed/Lister-Roll-Fold	12R-30		1.30	0.87	1.60			0.01	3.78	3.79 7.57
Spray (Broadcast)	60'		0.50	0.39	0.85			0.06	1.80	1.24 3.04
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64	4.64
Select Max	pt	12.64						0.45	13.09	13.09
Surfactant	pt	1.31						0.05	1.36	1.36
Custom Apply Fert	acre	7.50						0.21	7.71	7.71
Phosphorus (46% P2O5)	cwt	12.38						0.34	12.72	12.72
Potash (60% K2O)	cwt	18.98						0.53	19.51	19.51
Spray (Broadcast)	60'		0.50	0.39	0.85			0.05	1.79	1.24 3.03
Fierce	oz	26.39						0.73	27.12	27.12
Gramoxone SL 2.0	oz	7.20						0.20	7.40	7.40
Surfactant	pt	1.31						0.04	1.35	1.35
Soybeans Consultant	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.19	2.16	2.34			0.14	5.83	5.72 11.55
Soybean Seed RR2	lb	75.50						1.79	77.29	77.29
CruiserMaxx	oz	6.80						0.16	6.96	6.96
Boundary	pt	22.40						0.53	22.93	22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37	7.37
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.04	1.78	1.24 3.02
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Prefix	pt	13.06						0.31	13.37	13.37
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24 3.01
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Spray (Broadcast)	60'		0.25	0.20	0.42			0.01	0.88	0.62 1.50
Dimilin 2L	oz	1.45						0.02	1.47	1.47
Surfactant	pt	0.16							0.16	0.16
Spray (Broadcast)	60'		0.50	0.39	0.85			0.02	1.76	1.24 3.00
Prevathon	oz	18.48						0.22	18.70	18.70
Spray (Broadcast)	60'		0.25	0.20	0.42			0.01	0.88	0.62 1.50
Baythroid XL	oz	2.82						0.03	2.85	2.85
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10 24.64
Haul Soybeans	bu	10.80						0.04	10.84	10.84
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09 2.33
TOTALS		295.84	10.91	12.24	15.91	0.00	6.95	341.85	41.95	383.80

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

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	396.00
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	2.40	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	31.36	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	17.12	0.00	33.59	47.14	4.48	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	1.45	21.30	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.31	0.00	1.31	1.31	0.00	0.16	0.00	0.66	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	7.50	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.32
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.85	0.00	0.85	3.19	0.85	0.42	1.27	0.00	8.48
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.50	0.00	0.50	1.69	0.50	0.25	0.75	0.00	6.72
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.39	0.00	0.39	2.55	0.39	0.20	0.59	0.00	7.73
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.72	0.00	2.10	3.43	0.12	0.03	0.28	0.08	0.19
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.89	0.00	77.60	148.11	6.34	2.51	24.19	9.64	52.57
NET INCOME	0.00	0.00	0.00	-20.89	0.00	-77.60	-148.11	-6.34	-2.51	-24.19	-9.64	343.43
NET INCOME TO DATE	0.00	0.00	0.00	-20.89	-20.89	-98.49	-246.60	-252.94	-255.45	-279.64	-289.28	54.15

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR, May planted, 12R 30"  
 Non-Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			dollars										
PERCENT	YIELD	UNIT											
50	20.00	bu	-187	-178	-168	-158	-148	-138	-128	-118	-108	-98	-88
			-229	-219	-210	-200	-190	-180	-170	-160	-150	-140	-130
60	24.00	bu	-159	-147	-135	-123	-111	-99	-88	-76	-64	-52	-40
			-201	-189	-177	-165	-153	-141	-129	-118	-106	-94	-82
70	28.00	bu	-130	-116	-102	-89	-75	-61	-47	-33	-19	-5	7
			-172	-158	-144	-131	-117	-103	-89	-75	-61	-47	-34
80	32.00	bu	-102	-86	-70	-54	-38	-22	-7	8	24	40	56
			-144	-128	-112	-96	-80	-64	-48	-33	-17	-1	14
90	36.00	bu	-73	-55	-37	-20	-2	15	33	51	69	86	104
			-115	-97	-79	-61	-44	-26	-8	9	27	44	62
100	40.00	bu	-44	-25	-5	14	34	54	73	93	113	133	153
			-86	-67	-47	-27	-7	12	32	51	71	91	111
110	44.00	bu	-16	5	27	49	70	92	114	136	158	179	201
			-58	-36	-14	7	28	50	72	94	116	137	159
120	48.00	bu	12	36	59	83	107	131	154	178	202	226	249
			-29	-5	17	41	65	89	112	136	160	184	208
130	52.00	bu	40	66	92	118	143	169	195	221	246	272	298
			-0	24	50	76	102	127	153	179	204	230	256
140	56.00	bu	69	97	125	152	180	208	235	263	291	319	346
			27	55	83	110	138	166	193	221	249	277	304
150	60.00	bu	98	127	157	187	217	246	276	306	335	365	395
			56	85	115	145	175	204	234	264	293	323	353

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

Table 7.A Estimated costs per acre  
Soybeans, double crop after wheat, RR, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	3.0000	19.50	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.78	6.4000	4.99	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.51	50.0000	75.50	_____
ADJUVANTS					
Surfactant	pt	3.28	0.5000	1.64	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	25.0000	6.75	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.1171	1.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR					
	hour	13.57	0.1886	2.56	_____
DIESEL FUEL					
Tractors	gal	1.80	1.3567	2.44	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	3.12	1.0000	3.12	_____
Tractors	acre	0.77	1.0000	0.77	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	6.79	1.0000	6.79	_____
TOTAL DIRECT EXPENSES				296.95	_____
FIXED EXPENSES					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	4.85	1.0000	4.85	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				24.02	_____
TOTAL SPECIFIED EXPENSES				320.97	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	25.0000	247.50	_____
				-----	
TOTAL INCOME				247.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	47.14	1.0000	47.14	_____
INSECTICIDES	acre	37.04	1.0000	37.04	_____
SEED/PLANTS	acre	75.50	1.0000	75.50	_____
ADJUVANTS	acre	1.64	1.0000	1.64	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
OPERATOR LABOR	hour	13.51	0.2193	2.96	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL	gal	1.80	2.7503	4.95	_____
REPAIR & MAINTENANCE	acre	7.38	1.0000	7.38	_____
INTEREST ON OP. CAP.	acre	6.79	1.0000	6.79	_____
				-----	
TOTAL DIRECT EXPENSES				296.95	_____
RETURNS ABOVE DIRECT EXPENSES				-49.45	_____
TOTAL FIXED EXPENSES				24.02	_____
				-----	
TOTAL SPECIFIED EXPENSES				320.97	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-73.47	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
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				
Optimize	oz					1.4000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Prefix	pt					2.0000				
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				
Bifenthrin	oz					6.4000				
Incidental Pest				1.00	Sep					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	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					25.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.21	0.21	0.30	0.18

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus(46% P2O5)	cwt	16.31						0.77	17.08	17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44	26.44
Soybeans Consultant	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.41	2.23	2.31			0.12	6.07	6.22
Soybean Seed RR2	lb	75.50						1.49	76.99	76.99
CruiserMaxx	oz	6.80						0.13	6.93	6.93
Optimize	oz	3.00						0.06	3.06	3.06
Boundary	pt	22.40						0.44	22.84	22.84
Gramoxone SL 2.0	oz	7.20						0.14	7.34	7.34
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.59	0.43	0.84			0.03	1.89	1.45
Glyphosate 3lbs a.e	oz	4.48						0.07	4.55	4.55
Prefix	pt	13.06						0.21	13.27	13.27
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Acephate 90SP	lb	5.57						0.07	5.64	5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Prevathon	oz	18.48						0.22	18.70	18.70
Surfactant	pt	0.33							0.33	0.33
Bifenthrin	oz	4.99						0.06	5.05	5.05
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06	8.06
Header -Soybean	25' Flex		2.51	4.37	2.57			0.04	9.49	15.10
Haul Soybeans	bu	6.75						0.03	6.78	6.78
Grain Cart Soybean	700 bu		0.44	0.35	0.54			0.01	1.34	1.25
TOTALS		271.57	4.95	7.38	6.26	0.00	6.79	296.95	24.02	320.97

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

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	247.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.00	6.50	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.60	17.54	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	29.04	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.33	0.00	0.00
CUSTOM FERTILIZE	7.50	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
CUSTOM LIME	15.32	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	6.50	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	3.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	0.84	0.00	0.00	3.11
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	1.41	0.59	0.00	0.00	2.95
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	0.43	0.00	0.00	4.72
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	0.00	0.00	0.15	2.41	0.31	0.51	0.11	0.08
TOTAL DIRECT EXPENSES	70.92	0.00	0.00	0.00	0.00	0.00	6.65	124.57	19.71	42.88	14.61	17.61
NET INCOME	-70.92	0.00	0.00	0.00	0.00	0.00	-6.65	-124.57	-19.71	-42.88	-14.61	229.89
NET INCOME TO DATE	-70.92	-70.92	-70.92	-70.92	-70.92	-70.92	-77.57	-202.14	-221.85	-264.73	-279.34	-49.45

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> Lime cost prorated for application every 3<sup>rd</sup> 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, double crop after wheat, RR, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-200	-194	-188	-182	-175	-169	-163	-157	-151	-145	-138
			-224	-218	-212	-206	-200	-193	-187	-181	-175	-169	-162
60	15.00	bu	-182	-175	-168	-160	-153	-145	-138	-130	-123	-116	-108
			-206	-199	-192	-184	-177	-169	-162	-154	-147	-140	-132
70	17.50	bu	-164	-156	-147	-138	-130	-121	-113	-104	-95	-87	-78
			-188	-180	-171	-163	-154	-145	-137	-128	-119	-111	-102
80	20.00	bu	-147	-137	-127	-117	-107	-97	-87	-77	-67	-57	-48
			-171	-161	-151	-141	-131	-121	-111	-101	-91	-82	-72
90	22.50	bu	-129	-118	-106	-95	-84	-73	-62	-51	-40	-28	-17
			-153	-142	-130	-119	-108	-97	-86	-75	-64	-52	-41
100	25.00	bu	-111	-98	-86	-74	-61	-49	-37	-24	-12	0	12
			-135	-122	-110	-98	-85	-73	-61	-48	-36	-23	-11
110	27.50	bu	-93	-79	-66	-52	-38	-25	-11	1	15	29	42
			-117	-103	-90	-76	-63	-49	-35	-22	-8	5	18
120	30.00	bu	-75	-60	-45	-31	-16	-1	13	28	43	58	72
			-99	-84	-69	-55	-40	-25	-10	4	19	34	48
130	32.50	bu	-57	-41	-25	-9	6	22	38	54	71	87	103
			-81	-65	-49	-33	-17	-1	14	30	47	63	79
140	35.00	bu	-39	-22	-5	12	29	46	64	81	98	116	133
			-63	-46	-29	-11	5	22	40	57	74	92	109
150	37.50	bu	-21	-3	15	33	52	70	89	108	126	145	163
			-45	-27	-8	9	28	46	65	84	102	121	139

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

Table 8.A Estimated costs per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	3.0000	19.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.47	50.0000	73.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.0000	3.28	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	42.0000	11.34	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3302	4.46	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR					
	hour	13.51	0.3892	5.26	_____
DIESEL FUEL					
Tractors	gal	1.80	3.8252	6.89	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	4.81	1.0000	4.81	_____
Tractors	acre	2.18	1.0000	2.18	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	9.05	1.0000	9.05	_____
TOTAL DIRECT EXPENSES				339.98	_____
FIXED EXPENSES					
Implements	acre	9.73	1.0000	9.73	_____
Tractors	acre	13.66	1.0000	13.66	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				37.16	_____
TOTAL SPECIFIED EXPENSES				377.14	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR2X, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	42.0000	415.80	_____
				-----	
TOTAL INCOME				415.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	96.26	1.0000	96.26	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
SEED/PLANTS	acre	73.50	1.0000	73.50	_____
ADJUVANTS	acre	3.28	1.0000	3.28	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
OPERATOR LABOR	hour	13.51	0.4324	5.84	_____
UNALLOCATED LABOR	hour	13.51	0.3892	5.26	_____
DIESEL FUEL	gal	1.80	5.2188	9.40	_____
REPAIR & MAINTENANCE	acre	10.48	1.0000	10.48	_____
INTEREST ON OP. CAP.	acre	9.05	1.0000	9.05	_____
				-----	
TOTAL DIRECT EXPENSES				339.98	_____
RETURNS ABOVE DIRECT EXPENSES				75.82	_____
TOTAL FIXED EXPENSES				37.16	_____
				-----	
TOTAL SPECIFIED EXPENSES				377.14	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				38.66	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR2X, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
							-----hours-----			
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
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	oz					32.0000				
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 RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
Zidua	oz					1.5000				
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				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR2X, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Subsoiler	3 shank		0.85	0.33	1.05			0.11	2.34	1.84	4.18
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Field Cultivate Fld	24'		1.30	0.86	1.60			0.18	3.94	4.48	8.42
App by Air ( 5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Select Max	pt	12.64						0.40	13.04		13.04
Valor SX	oz	9.14						0.29	9.43		9.43
Surfactant	pt	1.31						0.04	1.35		1.35
Plant & Pre-Folding	12R-30		1.41	2.23	2.34			0.14	6.12	6.22	12.34
Soybean Seed RR2X	lb	73.50						1.75	75.25		75.25
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Soybeans Consultant	acre	6.50						0.13	6.63		6.63
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Prefix	pt	13.06						0.26	13.32		13.32
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Zidua	oz	13.58						0.27	13.85		13.85
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Acephate 90SP	lb	5.57						0.04	5.61		5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	11.34						0.04	11.38		11.38
Grain Cart Soybean	700 bu		0.44	0.35	0.55			0.01	1.35	1.25	2.60
TOTALS		299.08	9.40	10.48	11.97	0.00		9.05	339.98	37.16	377.14

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR2X, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	415.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.06	0.00	29.60	35.60	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	5.57	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	73.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.31	0.00	1.31	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.76	0.00	0.00	0.00	0.00	0.00	2.34	1.70	0.00	0.00	0.00	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	3.86	0.00	0.00	0.00	0.00	0.00	1.41	1.18	0.00	0.00	0.00	2.95
REPAIR & MAINTENANCE	2.67	0.00	0.00	0.00	0.00	0.00	2.23	0.86	0.00	0.00	0.00	4.72
INTEREST ON OP. CAP.	3.76	0.00	0.00	0.00	1.23	0.00	2.85	0.92	0.00	0.00	0.20	0.09
TOTAL DIRECT EXPENSES	82.75	0.00	0.00	0.00	40.10	0.00	123.04	46.76	0.00	0.00	25.06	22.27
NET INCOME	-82.75	0.00	0.00	0.00	-40.10	0.00	-123.04	-46.76	0.00	0.00	-25.06	393.53
NET INCOME TO DATE	-82.75	-82.75	-82.75	-82.75	-122.85	-122.85	-245.89	-292.65	-292.65	-292.65	-317.71	75.82

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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, full-season, RR2X, stale seedbed, 12R 30"  
 Non-irrigated, Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-178 -215	-167 -205	-157 -194	-147 -184	-136 -173	-126 -163	-115 -153	-105 -142	-95 -132	-84 -121	-74 -111
60	25.20	bu	-148 -185	-135 -173	-123 -160	-110 -148	-98 -135	-85 -123	-73 -110	-61 -98	-48 -85	-36 -73	-23 -60
70	29.40	bu	-118 -155	-103 -140	-89 -126	-74 -111	-60 -97	-45 -82	-30 -68	-16 -53	-1 -39	12 -24	27 -9
80	33.60	bu	-88 -125	-71 -108	-54 -92	-38 -75	-21 -58	-5 -42	11 -25	28 -8	44 7	61 24	78 40
90	37.80	bu	-58 -95	-39 -76	-20 -57	-2 -39	16 -20	35 -1	54 16	72 35	91 54	110 73	128 91
100	42.00	bu	-28 -65	-7 -44	13 -23	34 -2	55 17	75 38	96 59	117 80	138 101	158 121	179 142
110	46.20	bu	1 -35	24 -12	47 10	70 33	93 56	116 79	139 101	162 124	184 147	207 170	230 193
120	50.40	bu	31 -5	56 19	81 44	106 69	131 94	156 119	181 144	206 169	231 194	256 219	281 244
130	54.60	bu	62 24	89 51	116 78	143 105	170 132	197 159	224 187	251 214	278 241	305 268	332 295
140	58.80	bu	92 54	121 84	150 113	179 142	208 171	237 200	266 229	295 258	324 287	354 316	383 345
150	63.00	bu	122 84	153 116	184 147	215 178	246 209	278 240	309 272	340 303	371 334	402 365	433 396

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

Table 9.A Estimated costs per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	4.0000	26.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.47	50.0000	73.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.1000	3.61	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	60.0000	16.20	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4713	6.36	_____
Harvesters	hour	13.51	0.1021	1.38	_____
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	13.51	0.4454	6.02	_____
DIESEL FUEL					
Tractors	gal	1.80	5.2753	9.51	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Roll-Out Pipe Irr.	gal	1.80	7.3316	13.20	_____
REPAIR & MAINTENANCE					
Implements	acre	5.47	1.0000	5.47	_____
Tractors	acre	2.98	1.0000	2.98	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	10.11	1.0000	10.11	_____
TOTAL DIRECT EXPENSES				410.36	_____
FIXED EXPENSES					
Implements	acre	11.96	1.0000	11.96	_____
Tractors	acre	18.75	1.0000	18.75	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Roll-Out Pipe Irr.	acre	53.42	1.0000	53.42	_____
TOTAL FIXED EXPENSES				97.90	_____
TOTAL SPECIFIED EXPENSES				508.26	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 9.B Summary of estimated costs and returns per acre  
 Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	60.0000	594.00	_____
				-----	
TOTAL INCOME				594.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	96.26	1.0000	96.26	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	73.50	1.0000	73.50	_____
ADJUVANTS	acre	3.61	1.0000	3.61	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
IRRIGATE LABOR	hour	9.06	0.3625	3.30	_____
OPERATOR LABOR	hour	13.51	0.5735	7.74	_____
UNALLOCATED LABOR	hour	13.51	0.4454	6.02	_____
DIESEL FUEL	gal	1.80	14.0006	25.22	_____
REPAIR & MAINTENANCE	acre	18.83	1.0000	18.83	_____
INTEREST ON OP. CAP.	acre	10.11	1.0000	10.11	_____
				-----	
TOTAL DIRECT EXPENSES				410.36	_____
RETURNS ABOVE DIRECT EXPENSES				183.64	_____
TOTAL FIXED EXPENSES				97.90	_____
				-----	
TOTAL SPECIFIED EXPENSES				508.26	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				85.74	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 9.C Estimated resource use for field operations, per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
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	oz					32.0000				
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 RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
Zidua	oz					1.5000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Quadris Top SBX	oz					7.0000				
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				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 9.D Estimated costs for field operations, per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Subsoiler	3 shank		0.85	0.33	1.05			0.11	2.34	1.84	4.18
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Field Cultivate Fld	24'		1.30	0.86	1.60			0.18	3.94	4.48	8.42
Bed/Lister-Roll-Fold	12R-30		1.30	0.87	1.60			0.18	3.95	3.79	7.74
App by Air ( 5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Select Max	pt	12.64						0.40	13.04		13.04
Valor SX	oz	9.14						0.29	9.43		9.43
Surfactant	pt	1.31						0.04	1.35		1.35
Plant & Pre-Folding	12R-30		1.41	2.23	2.34			0.14	6.12	6.22	12.34
Soybean Seed RR2X	lb	73.50						1.75	75.25		75.25
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Soybeans Consultant	acre	6.50						0.13	6.63		6.63
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Prefix	pt	13.06						0.26	13.32		13.32
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Zidua	oz	13.58						0.27	13.85		13.85
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Quadris Top SBX	oz	19.25						0.23	19.48		19.48
Surfactant	pt	0.33							0.33		0.33
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Acephate 90SP	lb	5.57						0.04	5.61		5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	16.20						0.06	16.26		16.26
Grain Cart Soybean	700 bu		0.44	0.35	0.55			0.01	1.35	1.25	2.60
Roll-Out Pipe Irr.	acre	8.25	14.52	7.48	4.36			0.55	35.16	56.95	92.11
TOTALS		338.27	25.22	18.83	17.93	0.00	10.11	410.36	97.90	508.26	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 9.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	594.00
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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.06	0.00	29.60	35.60	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	5.57	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	73.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.31	0.00	1.31	0.00	0.00	0.33	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.87	0.00	0.00	0.00	0.00	0.00	2.34	1.93	2.80	0.23	0.00	3.76
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	5.83	0.00	0.00	0.00	0.00	0.00	1.41	1.18	9.15	4.40	0.00	3.25
REPAIR & MAINTENANCE	3.85	0.00	0.00	0.00	0.00	0.00	2.23	0.86	5.73	1.31	0.00	4.85
INTEREST ON OP. CAP.	4.01	0.00	0.00	0.00	1.23	0.00	2.85	0.92	0.41	0.38	0.20	0.11
TOTAL DIRECT EXPENSES	88.26	0.00	0.00	0.00	40.10	0.00	123.04	46.99	26.34	32.40	25.06	28.17
NET INCOME	-88.26	0.00	0.00	0.00	-40.10	0.00	-123.04	-46.99	-26.34	-32.40	-25.06	565.83
NET INCOME TO DATE	-88.26	-88.26	-88.26	-88.26	-128.36	-128.36	-251.40	-298.39	-324.73	-357.13	-382.19	183.64

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 9.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			dollars										
PERCENT	YIELD	UNIT											
50	30.00	bu	-179 -277	-164 -262	-149 -247	-134 -232	-120 -217	-105 -203	-90 -188	-75 -173	-60 -158	-45 -143	-30 -128
60	36.00	bu	-136 -234	-118 -216	-100 -198	-83 -180	-65 -163	-47 -145	-29 -127	-11 -109	6 -91	23 -74	41 -56
70	42.00	bu	-93 -191	-72 -170	-52 -149	-31 -129	-10 -108	10 -87	31 -66	51 -46	72 -25	93 -4	114 16
80	48.00	bu	-50 -148	-26 -124	-3 -101	20 -77	44 -53	68 -29	91 -6	115 17	139 41	163 65	186 88
90	54.00	bu	-7 -105	18 -78	45 -52	72 -25	99 1	125 27	152 54	179 81	206 108	232 134	259 161
100	60.00	bu	35 -62	64 -33	94 -3	124 26	153 56	183 85	213 115	243 145	272 174	302 204	332 234
110	66.00	bu	78 -19	110 12	143 45	176 78	208 110	241 143	274 176	306 208	339 241	372 274	404 306
120	72.00	bu	120 23	156 58	192 94	227 130	263 165	299 201	334 236	370 272	406 308	441 343	477 379
130	78.00	bu	163 66	202 104	241 143	279 181	318 220	356 259	395 297	434 336	472 374	511 413	550 452
140	84.00	bu	206 108	248 150	289 192	331 233	373 275	414 316	456 358	497 399	539 441	581 483	622 524
150	90.00	bu	249 151	294 196	338 240	383 285	427 330	472 374	517 419	561 463	606 508	650 552	695 597

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

Table 10.A Estimated costs per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	5.0000	32.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.47	50.0000	73.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.1000	3.61	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
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	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4582	6.21	_____
Harvesters	hour	13.51	0.1021	1.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR					
	hour	13.48	0.3218	4.34	_____
DIESEL FUEL					
Tractors	gal	1.80	4.3236	7.80	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Contour Flood Irr.	gal	1.80	10.9974	19.80	_____
REPAIR & MAINTENANCE					
Implements	acre	4.76	1.0000	4.76	_____
Tractors	acre	2.39	1.0000	2.39	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.					
	acre	10.02	1.0000	10.02	_____
TOTAL DIRECT EXPENSES				425.30	_____
FIXED EXPENSES					
Implements	acre	9.06	1.0000	9.06	_____
Tractors	acre	15.01	1.0000	15.01	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Contour Flood Irr.	acre	42.34	1.0000	42.34	_____
TOTAL FIXED EXPENSES				80.18	_____
TOTAL SPECIFIED EXPENSES				505.48	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 10.B Summary of estimated costs and returns per acre  
 Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	53.0000	524.70	_____
				-----	
TOTAL INCOME				524.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	32.50	1.0000	32.50	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	77.88	1.0000	77.88	_____
INSECTICIDES	acre	32.05	1.0000	32.05	_____
SEED/PLANTS	acre	73.50	1.0000	73.50	_____
ADJUVANTS	acre	3.61	1.0000	3.61	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	14.31	1.0000	14.31	_____
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1100	1.00	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	13.51	0.5604	7.59	_____
UNALLOCATED LABOR	hour	13.48	0.3218	4.34	_____
DIESEL FUEL	gal	1.80	16.7147	30.11	_____
REPAIR & MAINTENANCE	acre	24.44	1.0000	24.44	_____
INTEREST ON OP. CAP.	acre	10.02	1.0000	10.02	_____
				-----	
TOTAL DIRECT EXPENSES				425.30	_____
RETURNS ABOVE DIRECT EXPENSES				99.40	_____
TOTAL FIXED EXPENSES				80.18	_____
				-----	
TOTAL SPECIFIED EXPENSES				505.48	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				19.22	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 10.C Estimated resource use for field operations, per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
							-----hours-----			
Soil Test	acre			0.33	Nov	0.3330				
Disk Harrow	24'	MFWD 190	0.081	1.00	Nov		0.08	0.08	0.08	0.07
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Valor SX	oz					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 190	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Quadris Top SBX	oz					7.0000				
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				
IncidentalPestTrt \$8	acre					1.0000				
App by Air ( 5 gal)	appl			1.00	Sep	1.0000				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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							0.56	0.56	0.98	0.32

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 10.D Estimated costs for field operations, per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Disk Harrow	24'		1.44	1.38	2.11			0.23	5.16	4.78	9.94
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Spray (Broadcast)	60'		0.59	0.43	0.85			0.07	1.94	1.45	3.39
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
Select Max	pt	12.64						0.45	13.09		13.09
Surfactant	pt	1.31						0.05	1.36		1.36
Valor SX	oz	9.14						0.33	9.47		9.47
Soybeans Consultant	acre	6.50						0.15	6.65		6.65
Plant & Pre-Folding	12R-30		1.19	2.16	2.34			0.14	5.83	5.72	11.55
Soybean Seed RR2X	lb	73.50						1.75	75.25		75.25
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.04	1.78	1.24	3.02
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Prefix	pt	13.06						0.31	13.37		13.37
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24	3.01
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Quadris Top SBX	oz	19.25						0.30	19.55		19.55
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Acephate 90SP	lb	5.57						0.07	5.64		5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Prevathon	oz	18.48						0.22	18.70		18.70
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06		8.06
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	14.31						0.06	14.37		14.37
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09	2.33
Contour Flood Irr.	acre	2.25	23.01	15.00	5.58			0.75	46.59	49.56	96.15
TOTALS		344.98	30.11	24.44	15.75	0.00	10.02	425.30	80.18	505.48	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 10.E Estimated monthly income and expense flows per acre  
 Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

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	524.70
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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	19.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	26.26	0.00	0.00	47.14	4.48	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	24.05	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	73.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.31	0.00	0.00	1.31	0.00	0.33	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	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	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.11	0.00	0.00	0.85	0.00	0.00	3.64	2.65	1.58	1.58	0.17	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.44	0.00	0.00	0.59	0.00	0.00	1.69	8.27	7.52	7.52	0.20	2.88
REPAIR & MAINTENANCE	1.38	0.00	0.00	0.43	0.00	0.00	2.55	9.37	2.97	2.97	0.08	4.69
INTEREST ON OP. CAP.	3.45	0.00	0.00	1.06	0.00	0.00	3.47	0.52	0.60	0.60	0.22	0.10
TOTAL DIRECT EXPENSES	76.08	0.00	0.00	30.50	0.00	0.00	149.60	27.54	38.75	49.72	27.96	25.15
NET INCOME	-76.08	0.00	0.00	-30.50	0.00	0.00	-149.60	-27.54	-38.75	-49.72	-27.96	499.55
NET INCOME TO DATE	-76.08	-76.08	-76.08	-106.58	-106.58	-106.58	-256.18	-283.72	-322.47	-372.19	-400.15	99.40

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 10.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-221 -301	-208 -288	-195 -275	-182 -262	-168 -249	-155 -235	-142 -222	-129 -209	-116 -196	-103 -183	-90 -170
60	31.80	bu	-183 -263	-167 -247	-151 -232	-136 -216	-120 -200	-104 -184	-88 -169	-73 -153	-57 -137	-41 -121	-26 -106
70	37.10	bu	-145 -225	-127 -207	-108 -188	-90 -170	-72 -152	-53 -133	-35 -115	-16 -97	1 -78	19 -60	38 -42
80	42.40	bu	-107 -187	-86 -166	-65 -145	-44 -124	-23 -103	-2 -82	18 -61	39 -40	60 -19	81 1	102 22
90	47.70	bu	-69 -149	-46 -126	-22 -102	1 -79	24 -55	48 -31	71 -8	95 15	119 39	142 62	166 86
100	53.00	bu	-31 -111	-5 -85	20 -59	46 -33	73 -7	99 19	125 45	151 71	178 97	204 124	230 150
110	58.30	bu	6 -74	34 -45	63 -16	92 12	121 41	150 70	179 99	208 127	237 156	265 185	294 214
120	63.60	bu	44 -36	75 -4	107 26	138 58	169 89	201 121	232 152	264 184	295 215	327 247	358 278
130	68.90	bu	81 1	116 35	150 70	184 104	218 138	252 172	286 206	320 240	354 274	388 308	423 342
140	74.20	bu	119 39	156 76	193 113	230 149	266 186	303 223	340 260	376 296	413 333	450 370	487 406
150	79.50	bu	157 77	197 116	236 156	275 195	315 235	354 274	393 313	433 353	472 392	511 431	551 471

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

Table 11.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	4.0000	26.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.78	6.4000	4.99	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.47	50.0000	73.50	_____
ADJUVANTS					
Surfactant	pt	3.28	0.6000	1.97	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	50.0000	13.50	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.1171	1.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL					
Tractors	gal	1.80	1.3567	2.44	_____
Harvesters	gal	1.80	1.3935	2.51	_____
1/2-mi Pivot Irr.	gal	1.80	16.4057	29.53	_____
REPAIR & MAINTENANCE					
Implements	acre	3.12	1.0000	3.12	_____
Tractors	acre	0.77	1.0000	0.77	_____
Harvesters	acre	3.49	1.0000	3.49	_____
1/2-mi Pivot Irr.	acre	11.57	1.0000	11.57	_____
INTEREST ON OP. CAP.	acre	7.78	1.0000	7.78	_____
TOTAL DIRECT EXPENSES				370.34	_____
FIXED EXPENSES					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	4.85	1.0000	4.85	_____
Harvesters	acre	13.77	1.0000	13.77	_____
1/2-mi Pivot Irr.	acre	41.81	1.0000	41.81	_____
TOTAL FIXED EXPENSES				65.83	_____
TOTAL SPECIFIED EXPENSES				436.17	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 11.B Summary of estimated costs and returns per acre  
 Soybeans, double crop after wheat, RR2X, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	50.0000	495.00	_____
				-----	
TOTAL INCOME				495.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	47.14	1.0000	47.14	_____
INSECTICIDES	acre	37.04	1.0000	37.04	_____
SEED/PLANTS	acre	73.50	1.0000	73.50	_____
ADJUVANTS	acre	1.97	1.0000	1.97	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	13.51	0.2193	2.96	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL	gal	1.80	19.1560	34.48	_____
REPAIR & MAINTENANCE	acre	18.95	1.0000	18.95	_____
INTEREST ON OP. CAP.	acre	7.78	1.0000	7.78	_____
				-----	
TOTAL DIRECT EXPENSES				370.34	_____
RETURNS ABOVE DIRECT EXPENSES				124.66	_____
TOTAL FIXED EXPENSES				65.83	_____
				-----	
TOTAL SPECIFIED EXPENSES				436.17	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				58.83	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 11.C Estimated resource use for field operations, per acre  
 Soybeans, double crop after wheat, RR2X, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
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 RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Prefix	pt					2.0000				
App by Air ( 5 gal)	appl			1.00	Aug	1.0000				
Quadris Top SBX	oz					7.0000				
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				
Bifenthrin	oz					6.4000				
Incidental Pest				1.00	Sep					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	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							0.21	0.21	0.35	0.18

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 11.D Estimated costs for field operations, per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus(46% P2O5)	cwt	16.31						0.77	17.08	17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44	26.44
Soybeans Consultant	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.41	2.23	2.31			0.12	6.07	6.22
Soybean Seed RR2X	lb	73.50						1.45	74.95	74.95
CruiserMaxx	oz	6.80						0.13	6.93	6.93
Optimize	oz	3.00						0.06	3.06	3.06
Boundary	pt	22.40						0.44	22.84	22.84
Gramoxone SL 2.0	oz	7.20						0.14	7.34	7.34
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.59	0.43	0.84			0.03	1.89	1.45
Glyphosate 3lbs a.e	oz	4.48						0.07	4.55	4.55
Prefix	pt	13.06						0.21	13.27	13.27
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Quadris Top SBX	oz	19.25						0.23	19.48	19.48
Surfactant	pt	0.33							0.33	0.33
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Acephate 90SP	lb	5.57						0.07	5.64	5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Prevathon	oz	18.48						0.22	18.70	18.70
Surfactant	pt	0.33							0.33	0.33
Bifenthrin	oz	4.99						0.06	5.05	5.05
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06	8.06
Header -Soybean	25' Flex		2.51	4.37	2.57			0.04	9.49	15.10
Haul Soybeans	bu	13.50						0.05	13.55	13.55
Grain Cart Soybean	700 bu		0.44	0.35	0.54			0.01	1.34	1.25
1/2-mi Pivot Irr.	acre		29.53	11.57	0.47			0.70	42.27	41.81
TOTALS		302.40	34.48	18.95	6.73	0.00	7.78	370.34	65.83	436.17

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 11.E Estimated monthly income and expense flows per acre  
 Soybeans, double crop after wheat, RR2X, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

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	495.00
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	41.55	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	6.80	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.60	17.54	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	29.04	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.66	0.00	0.00
CUSTOM FERTILIZE	7.50	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	15.32	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	6.50	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	3.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.35	0.89	0.04	0.00	3.11
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	10.27	12.40	8.86	0.00	2.95
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.51	1.17	0.55	0.00	4.72
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	0.00	0.00	0.16	2.75	0.51	0.93	0.11	0.10
TOTAL DIRECT EXPENSES	70.92	0.00	0.00	0.00	0.00	0.00	7.00	142.09	32.51	78.83	14.61	24.38
NET INCOME	-70.92	0.00	0.00	0.00	0.00	0.00	-7.00	-142.09	-32.51	-78.83	-14.61	470.62
NET INCOME TO DATE	-70.92	-70.92	-70.92	-70.92	-70.92	-70.92	-77.92	-220.01	-252.52	-331.35	-345.96	124.66

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 11.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, double crop after wheat, RR2X, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2018

PRODUCT			PERCENT										
-----			75	80	85	90	95	100	105	110	115	120	125
-----			PRODUCT PRICE-----										
-----			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	-----dollars-----										
50	25.00	bu	-177 -243	-165 -231	-153 -219	-140 -206	-128 -194	-116 -181	-103 -169	-91 -157	-78 -144	-66 -132	-54 -120
60	30.00	bu	-142 -208	-127 -193	-112 -178	-97 -163	-82 -148	-67 -133	-53 -118	-38 -104	-23 -89	-8 -74	6 -59
70	35.00	bu	-106 -172	-89 -154	-71 -137	-54 -120	-37 -102	-19 -85	-2 -68	14 -50	32 -33	49 -16	66 1
80	40.00	bu	-70 -136	-50 -116	-31 -96	-11 -77	8 -57	28 -37	48 -17	67 2	87 21	107 41	127 61
90	45.00	bu	-34 -100	-12 -78	9 -56	31 -33	54 -11	76 10	98 32	121 55	143 77	165 99	187 122
100	50.00	bu	0 -64	25 -40	50 -15	75 9	99 34	124 58	149 83	174 108	198 133	223 157	248 182
110	55.00	bu	36 -29	63 -1	91 25	118 52	145 79	172 106	200 134	227 161	254 188	281 215	308 243
120	60.00	bu	72 6	102 36	131 66	161 95	191 125	220 155	250 184	280 214	310 244	339 273	369 303
130	65.00	bu	108 42	140 74	172 106	204 138	236 171	269 203	301 235	333 267	365 299	397 331	429 364
140	70.00	bu	143 78	178 112	213 147	247 182	282 216	317 251	351 286	386 320	421 355	455 390	490 424
150	75.00	bu	179 113	216 151	254 188	291 225	328 262	365 299	402 336	439 373	476 410	513 448	551 485

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

Table 12.A Estimated costs per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	2.0000	13.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.6600	12.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.47	50.0000	73.50	_____
ADJUVANTS					
Surfactant	pt	3.28	0.6000	1.97	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	43.0000	11.61	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3128	4.23	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR					
	hour	13.49	0.3734	5.04	_____
DIESEL FUEL					
Tractors	gal	1.80	3.0592	5.52	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	4.69	1.0000	4.69	_____
Tractors	acre	1.68	1.0000	1.68	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	7.18	1.0000	7.18	_____
TOTAL DIRECT EXPENSES				276.44	_____
FIXED EXPENSES					
Implements	acre	9.30	1.0000	9.30	_____
Tractors	acre	10.65	1.0000	10.65	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				33.72	_____
TOTAL SPECIFIED EXPENSES				310.16	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 12.B Summary of estimated costs and returns per acre  
 Soybeans, full-season, RR2X, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	43.0000	425.70	_____
				-----	
TOTAL INCOME				425.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.00	1.0000	13.00	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	31.36	1.0000	31.36	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	60.90	1.0000	60.90	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
SEED/PLANTS	acre	73.50	1.0000	73.50	_____
ADJUVANTS	acre	1.97	1.0000	1.97	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1051	0.96	_____
OPERATOR LABOR	hour	13.51	0.4149	5.61	_____
UNALLOCATED LABOR	hour	13.49	0.3734	5.04	_____
DIESEL FUEL	gal	1.80	4.4528	8.03	_____
REPAIR & MAINTENANCE	acre	9.86	1.0000	9.86	_____
INTEREST ON OP. CAP.	acre	7.18	1.0000	7.18	_____
				-----	
TOTAL DIRECT EXPENSES				276.44	_____
RETURNS ABOVE DIRECT EXPENSES				149.26	_____
TOTAL FIXED EXPENSES				33.72	_____
				-----	
TOTAL SPECIFIED EXPENSES				310.16	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				115.54	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 12.C Estimated resource use for field operations, per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P2O5)	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	oz					32.0000				
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 RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
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				
Gramoxone SL	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							0.41	0.41	0.52	0.37

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 12.D Estimated costs for field operations, per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus(46% P2O5)	cwt	12.38						0.59	12.97	12.97
Potash (60% K2O)	cwt	18.98						0.90	19.88	19.88
Disk Harrow	24'		1.44	1.38	2.11			0.23	5.16	4.78
Field Cultivate Fld	24'		1.10	0.79	1.60			0.17	3.66	4.03
App by Air ( 5 gal)	appl	6.50						0.18	6.68	6.68
Glyphosate 3lbs a.e	oz	4.48						0.12	4.60	4.60
2,4-D Amine 4	pt	4.80						0.13	4.93	4.93
Plant - Folding	12R-30		1.11	1.83	2.18			0.12	5.24	5.00
Soybean Seed RR2X	lb	73.50						1.75	75.25	75.25
CruiserMaxx	oz	6.80						0.16	6.96	6.96
Boundary	pt	22.40						0.53	22.93	22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37	7.37
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Prefix	pt	13.06						0.26	13.32	13.32
Soybeans Consultant	acre	6.50						0.13	6.63	6.63
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Spray (Broadcast)	60'		0.50	0.39	0.85			0.01	1.75	1.24
Acephate 90SP	lb	5.57						0.04	5.61	5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10
Haul Soybeans	bu	11.61						0.05	11.66	11.66
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09
TOTALS		239.76	8.03	9.86	11.61	0.00	7.18	276.44	33.72	310.16

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 12.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	425.70
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	2.40	0.00
FERTILIZERS	31.36	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.28	29.60	22.02	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	5.57	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	73.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.71	0.00	0.00	0.00	0.00	0.00	2.18	1.70	0.00	0.00	0.85	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.54	0.00	0.00	0.00	0.00	0.00	1.11	1.00	0.00	0.00	0.50	2.88
REPAIR & MAINTENANCE	2.17	0.00	0.00	0.00	0.00	0.00	1.83	0.78	0.00	0.00	0.39	4.69
INTEREST ON OP. CAP.	3.14	0.00	0.00	0.00	0.00	0.43	2.76	0.63	0.00	0.00	0.13	0.09
TOTAL DIRECT EXPENSES	69.07	0.00	0.00	0.00	0.00	16.21	119.09	32.63	0.00	0.00	17.00	22.44
NET INCOME	-69.07	0.00	0.00	0.00	0.00	-16.21	-119.09	-32.63	0.00	0.00	-17.00	403.26
NET INCOME TO DATE	-69.07	-69.07	-69.07	-69.07	-69.07	-85.28	-204.37	-237.00	-237.00	-237.00	-254.00	149.26

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 13.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, RR2X, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2018

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	-----dollars-----										
50	21.50	bu	-110 -144	-100 -134	-89 -123	-79 -112	-68 -102	-57 -91	-47 -80	-36 -70	-25 -59	-15 -48	-4 -38
60	25.80	bu	-80 -113	-67 -101	-54 -88	-41 -75	-29 -62	-16 -50	-3 -37	9 -24	21 -11	34 1	47 13
70	30.10	bu	-49 -83	-34 -68	-19 -53	-4 -38	10 -23	25 -8	39 6	54 21	69 36	84 50	99 65
80	34.40	bu	-18 -52	-1 -35	15 -18	32 -1	49 15	66 32	83 49	100 66	117 83	134 100	151 117
90	38.70	bu	12 -21	31 -2	50 16	69 35	88 54	107 74	127 93	146 112	165 131	184 150	203 169
100	43.00	bu	42 9	64 30	85 51	106 72	127 94	149 115	170 136	191 158	213 179	234 200	255 221
110	47.30	bu	73 39	97 63	120 86	143 110	167 133	190 156	214 180	237 203	260 227	284 250	307 274
120	51.60	bu	104 70	129 96	155 121	180 147	206 172	232 198	257 223	283 249	308 274	334 300	359 326
130	55.90	bu	135 101	162 129	190 156	218 184	245 212	273 239	301 267	328 295	356 322	384 350	411 378
140	60.20	bu	165 132	195 161	225 191	255 221	285 251	314 281	344 310	374 340	404 370	434 400	463 430
150	64.50	bu	196 162	228 194	260 226	292 258	324 290	356 322	388 354	420 386	452 418	483 450	515 482

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

Table 13.A Estimated costs per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	1.0000	6.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.6600	12.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	12.64	1.0000	12.64	_____
Fierce	oz	7.54	3.5000	26.39	_____
Gramoxone SL 2.0	oz	0.15	96.0000	14.40	_____
Boundary	pt	11.20	2.0000	22.40	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Dimilin 2L	oz	1.45	1.0000	1.45	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Baythroid XL	oz	2.65	1.0650	2.82	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.47	50.0000	73.50	_____
ADJUVANTS					
Surfactant	pt	3.28	1.4500	4.76	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	40.0000	10.80	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4647	6.27	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1523	1.38	_____
UNALLOCATED LABOR	hour	13.48	0.5102	6.88	_____
DIESEL FUEL					
Tractors	gal	1.80	4.6579	8.40	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	6.17	1.0000	6.17	_____
Tractors	acre	2.58	1.0000	2.58	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	6.91	1.0000	6.91	_____
TOTAL DIRECT EXPENSES				339.81	_____
FIXED EXPENSES					
Implements	acre	11.91	1.0000	11.91	_____
Tractors	acre	16.27	1.0000	16.27	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				41.95	_____
TOTAL SPECIFIED EXPENSES				381.76	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 13.B Summary of estimated costs and returns per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	40.0000	396.00	_____
				-----	
TOTAL INCOME				396.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	31.36	1.0000	31.36	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	102.33	1.0000	102.33	_____
INSECTICIDES	acre	22.75	1.0000	22.75	_____
SEED/PLANTS	acre	73.50	1.0000	73.50	_____
ADJUVANTS	acre	4.75	1.0000	4.75	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1523	1.38	_____
OPERATOR LABOR	hour	13.51	0.5669	7.65	_____
UNALLOCATED LABOR	hour	13.48	0.5102	6.88	_____
DIESEL FUEL	gal	1.80	6.0515	10.91	_____
REPAIR & MAINTENANCE	acre	12.24	1.0000	12.24	_____
INTEREST ON OP. CAP.	acre	6.91	1.0000	6.91	_____
				-----	
TOTAL DIRECT EXPENSES				339.81	_____
RETURNS ABOVE DIRECT EXPENSES				56.19	_____
TOTAL FIXED EXPENSES				41.95	_____
				-----	
TOTAL SPECIFIED EXPENSES				381.76	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				14.24	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 13.C Estimated resource use for field operations, per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
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
Bed/Lister-Roll-Fold	12R-30	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Fierce	oz					3.5000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 190	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary	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	oz					32.0000				
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	oz					32.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
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				
Gramoxone SL	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
<b>TOTALS</b>							<b>0.56</b>	<b>0.56</b>	<b>0.71</b>	<b>0.51</b>

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 13.D Estimated costs for field operations, per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.01	3.34	3.34
Lime (Spread)	ton	15.32						0.06	15.38	15.38
Disk Harrow	24'		1.44	1.38	2.11			0.02	4.95	4.78 9.73
Field Cultivate Fld	24'		1.10	0.79	1.60			0.01	3.50	4.03 7.53
Bed/Lister-Roll-Fold	12R-30		1.30	0.87	1.60			0.01	3.78	3.79 7.57
Spray (Broadcast)	60'		0.50	0.39	0.85			0.06	1.80	1.24 3.04
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64	4.64
Select Max	pt	12.64						0.45	13.09	13.09
Surfactant	pt	1.31						0.05	1.36	1.36
Custom Apply Fert	acre	7.50						0.21	7.71	7.71
Phosphorus (46% P2O5)	cwt	12.38						0.34	12.72	12.72
Potash (60% K2O)	cwt	18.98						0.53	19.51	19.51
Spray (Broadcast)	60'		0.50	0.39	0.85			0.05	1.79	1.24 3.03
Fierce	oz	26.39						0.73	27.12	27.12
Gramoxone SL 2.0	oz	7.20						0.20	7.40	7.40
Surfactant	pt	1.31						0.04	1.35	1.35
Soybeans Consultant	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.19	2.16	2.34			0.14	5.83	5.72 11.55
Soybean Seed RR2X	lb	73.50						1.75	75.25	75.25
CruiserMaxx	oz	6.80						0.16	6.96	6.96
Boundary	pt	22.40						0.53	22.93	22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37	7.37
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.04	1.78	1.24 3.02
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Prefix	pt	13.06						0.31	13.37	13.37
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24 3.01
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Spray (Broadcast)	60'		0.25	0.20	0.42			0.01	0.88	0.62 1.50
Dimilin 2L	oz	1.45						0.02	1.47	1.47
Surfactant	pt	0.16							0.16	0.16
Spray (Broadcast)	60'		0.50	0.39	0.85			0.02	1.76	1.24 3.00
Prevathon	oz	18.48						0.22	18.70	18.70
Spray (Broadcast)	60'		0.25	0.20	0.42			0.01	0.88	0.62 1.50
Baythroid XL	oz	2.82						0.03	2.85	2.85
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10 24.64
Haul Soybeans	bu	10.80						0.04	10.84	10.84
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09 2.33
TOTALS		293.84	10.91	12.24	15.91	0.00	6.91	339.81	41.95	381.76

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 13.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

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	396.00
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	2.40	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	31.36	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	17.12	0.00	33.59	47.14	4.48	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	1.45	21.30	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	73.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.31	0.00	1.31	1.31	0.00	0.16	0.00	0.66	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	7.50	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.32
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.85	0.00	0.85	3.19	0.85	0.42	1.27	0.00	8.48
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.50	0.00	0.50	1.69	0.50	0.25	0.75	0.00	6.72
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.39	0.00	0.39	2.55	0.39	0.20	0.59	0.00	7.73
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.72	0.00	2.10	3.39	0.12	0.03	0.28	0.08	0.19
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.89	0.00	77.60	146.07	6.34	2.51	24.19	9.64	52.57
NET INCOME	0.00	0.00	0.00	-20.89	0.00	-77.60	-146.07	-6.34	-2.51	-24.19	-9.64	343.43
NET INCOME TO DATE	0.00	0.00	0.00	-20.89	-20.89	-98.49	-244.56	-250.90	-253.41	-277.60	-287.24	56.19

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 13.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, RR2X, May planted, 12R 30"  
 Non-Delta Area, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37		
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-185 -227	-175 -217	-166 -208	-156 -198	-146 -188	-136 -178	-126 -168	-116 -158	-106 -148	-96 -138	-86 -128
60	24.00	bu	-157 -199	-145 -187	-133 -175	-121 -163	-109 -151	-97 -139	-85 -127	-74 -116	-62 -104	-50 -92	-38 -80
70	28.00	bu	-128 -170	-114 -156	-100 -142	-87 -129	-73 -115	-59 -101	-45 -87	-31 -73	-17 -59	-3 -45	9 -32
80	32.00	bu	-100 -141	-84 -126	-68 -110	-52 -94	-36 -78	-20 -62	-5 -46	10 -31	26 -15	42 0	58 16
90	36.00	bu	-71 -113	-53 -95	-35 -77	-17 -59	-0 -42	17 -24	35 -6	53 11	71 29	88 47	106 64
100	40.00	bu	-42 -84	-23 -64	-3 -45	16 -25	36 -5	56 14	75 34	95 53	115 73	135 93	155 113
110	44.00	bu	-14 -56	7 -34	29 -12	51 9	72 30	94 52	116 74	138 96	160 118	181 139	203 161
120	48.00	bu	14 -27	38 -3	61 19	85 43	109 67	133 91	156 115	180 138	204 162	228 186	252 210
130	52.00	bu	43 1	68 26	94 52	120 78	145 104	171 129	197 155	223 181	248 207	274 232	300 258
140	56.00	bu	71 29	99 57	127 85	154 112	182 140	210 168	237 196	265 223	293 251	321 279	348 306
150	60.00	bu	100 58	129 88	159 117	189 147	219 177	248 206	278 236	308 266	337 295	367 325	397 355

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

Table 14.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	3.0000	19.50	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.78	6.4000	4.99	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.47	50.0000	73.50	_____
ADJUVANTS					
Surfactant	pt	3.28	0.5000	1.64	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	25.0000	6.75	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.1171	1.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL					
Tractors	gal	1.80	1.3567	2.44	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	3.12	1.0000	3.12	_____
Tractors	acre	0.77	1.0000	0.77	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	6.75	1.0000	6.75	_____
TOTAL DIRECT EXPENSES				294.91	_____
FIXED EXPENSES					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	4.85	1.0000	4.85	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				24.02	_____
TOTAL SPECIFIED EXPENSES				318.93	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 14.B Summary of estimated costs and returns per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	25.0000	247.50	_____
				-----	
TOTAL INCOME				247.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	47.14	1.0000	47.14	_____
INSECTICIDES	acre	37.04	1.0000	37.04	_____
SEED/PLANTS	acre	73.50	1.0000	73.50	_____
ADJUVANTS	acre	1.64	1.0000	1.64	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
OPERATOR LABOR	hour	13.51	0.2193	2.96	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL	gal	1.80	2.7503	4.95	_____
REPAIR & MAINTENANCE	acre	7.38	1.0000	7.38	_____
INTEREST ON OP. CAP.	acre	6.75	1.0000	6.75	_____
				-----	
TOTAL DIRECT EXPENSES				294.91	_____
RETURNS ABOVE DIRECT EXPENSES				-47.41	_____
TOTAL FIXED EXPENSES				24.02	_____
				-----	
TOTAL SPECIFIED EXPENSES				318.93	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-71.43	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 14.C Estimated resource use for field operations, per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
-----hours-----										
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
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 RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Prefix	pt					2.0000				
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				
Bifenthrin	oz					6.4000				
Incidental Pest				1.00	Sep					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	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					25.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
							-----			
TOTALS							0.21	0.21	0.30	0.18

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 14.D Estimated costs for field operations, per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus(46% P2O5)	cwt	16.31						0.77	17.08	17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44	26.44
Soybeans Consulting	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.41	2.23	2.31			0.12	6.07	6.22
Soybean Seed RR2X	lb	73.50						1.45	74.95	74.95
CruiserMaxx	oz	6.80						0.13	6.93	6.93
Optimize	oz	3.00						0.06	3.06	3.06
Boundary	pt	22.40						0.44	22.84	22.84
Gramoxone SL 2.0	oz	7.20						0.14	7.34	7.34
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.59	0.43	0.84			0.03	1.89	1.45
Glyphosate 3lbs a.e	oz	4.48						0.07	4.55	4.55
Prefix	pt	13.06						0.21	13.27	13.27
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Acephate 90SP	lb	5.57						0.07	5.64	5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Prevathon	oz	18.48						0.22	18.70	18.70
Surfactant	pt	0.33							0.33	0.33
Bifenthrin	oz	4.99						0.06	5.05	5.05
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06	8.06
Header -Soybean	25' Flex		2.51	4.37	2.57			0.04	9.49	15.10
Haul Soybeans	bu	6.75						0.03	6.78	6.78
Grain Cart Soybean	700 bu		0.44	0.35	0.54			0.01	1.34	1.25
TOTALS		269.57	4.95	7.38	6.26	0.00	6.75	294.91	24.02	318.93

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 14.E Estimated monthly income and expense flows per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

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	247.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.00	6.50	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.60	17.54	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	29.04	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.33	0.00	0.00
CUSTOM FERTILIZE	7.50	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
CUSTOM LIME	15.32	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	6.50	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	3.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	0.84	0.00	0.00	3.11
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	1.41	0.59	0.00	0.00	2.95
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	0.43	0.00	0.00	4.72
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	0.00	0.00	0.15	2.37	0.31	0.51	0.11	0.08
TOTAL DIRECT EXPENSES	70.92	0.00	0.00	0.00	0.00	0.00	6.65	122.53	19.71	42.88	14.61	17.61
NET INCOME	-70.92	0.00	0.00	0.00	0.00	0.00	-6.65	-122.53	-19.71	-42.88	-14.61	229.89
NET INCOME TO DATE	-70.92	-70.92	-70.92	-70.92	-70.92	-70.92	-77.57	-200.10	-219.81	-262.69	-277.30	-47.41

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 14.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, double crop after wheat, RR2X, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-198 -222	-192 -216	-186 -210	-180 -204	-173 -197	-167 -191	-161 -185	-155 -179	-149 -173	-143 -167	-136 -160
60	15.00	bu	-180 -204	-173 -197	-165 -189	-158 -182	-151 -175	-143 -167	-136 -160	-128 -152	-121 -145	-113 -138	-106 -130
70	17.50	bu	-162 -186	-154 -178	-145 -169	-136 -160	-128 -152	-119 -143	-110 -134	-102 -126	-93 -117	-84 -108	-76 -100
80	20.00	bu	-145 -169	-135 -159	-125 -149	-115 -139	-105 -129	-95 -119	-85 -109	-75 -99	-65 -89	-55 -79	-46 -70
90	22.50	bu	-127 -151	-116 -140	-104 -128	-93 -117	-82 -106	-71 -95	-60 -84	-49 -73	-38 -62	-26 -50	-15 -39
100	25.00	bu	-109 -133	-96 -120	-84 -108	-72 -96	-59 -83	-47 -71	-35 -59	-22 -46	-10 -34	2 -21	14 -9
110	27.50	bu	-91 -115	-77 -101	-64 -88	-50 -74	-36 -60	-23 -47	-9 -33	3 -20	17 -6	31 7	44 20
120	30.00	bu	-73 -97	-58 -82	-43 -67	-28 -52	-14 -38	0 -23	15 -8	30 6	45 21	60 36	74 50
130	32.50	bu	-55 -79	-39 -63	-23 -47	-7 -31	8 -15	24 0	40 16	56 32	73 49	89 65	105 81
140	35.00	bu	-37 -61	-20 -44	-3 -27	14 -9	31 7	48 24	66 42	83 59	100 76	118 94	135 111
150	37.50	bu	-19 -43	-1 -25	17 -6	35 11	54 30	72 48	91 67	110 86	128 104	147 123	165 141

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

Table 15.A Estimated costs per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	3.0000	19.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.60	58.0000	34.80	_____
Dual Magnum	pt	13.80	1.0000	13.80	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.28	50.0000	64.00	_____
ADJUVANTS					
Surfactant	pt	3.28	1.0000	3.28	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	42.0000	11.34	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3302	4.46	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR					
	hour	13.51	0.3892	5.26	_____
DIESEL FUEL					
Tractors	gal	1.80	3.8252	6.89	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	4.81	1.0000	4.81	_____
Tractors	acre	2.18	1.0000	2.18	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	9.33	1.0000	9.33	_____
TOTAL DIRECT EXPENSES				357.34	_____
FIXED EXPENSES					
Implements	acre	9.73	1.0000	9.73	_____
Tractors	acre	13.66	1.0000	13.66	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				37.16	_____
TOTAL SPECIFIED EXPENSES				394.50	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 15.B Summary of estimated costs and returns per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	42.0000	415.80	_____
				-----	
TOTAL INCOME				415.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	122.84	1.0000	122.84	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
SEED/PLANTS	acre	64.00	1.0000	64.00	_____
ADJUVANTS	acre	3.28	1.0000	3.28	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
OPERATOR LABOR	hour	13.51	0.4324	5.84	_____
UNALLOCATED LABOR	hour	13.51	0.3892	5.26	_____
DIESEL FUEL	gal	1.80	5.2188	9.40	_____
REPAIR & MAINTENANCE	acre	10.48	1.0000	10.48	_____
INTEREST ON OP. CAP.	acre	9.33	1.0000	9.33	_____
				-----	
TOTAL DIRECT EXPENSES				357.34	_____
RETURNS ABOVE DIRECT EXPENSES				58.46	_____
TOTAL FIXED EXPENSES				37.16	_____
				-----	
TOTAL SPECIFIED EXPENSES				394.50	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				21.30	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 15.C Estimated resource use for field operations, per acre  
 Soybeans, full-season, LL, stale seedbed, 12R 30"  
 Non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
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	oz					32.0000				
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 LL	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	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
Liberty 280	oz					29.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Liberty 280	oz					29.0000				
Zidua	oz					1.5000				
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				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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
<b>TOTALS</b>							0.43	0.43	0.52	0.38

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 15.D Estimated costs for field operations, per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Subsoiler	3 shank		0.85	0.33	1.05			0.11	2.34	1.84	4.18
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Field Cultivate Fld	24'		1.30	0.86	1.60			0.18	3.94	4.48	8.42
App by Air ( 5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Select Max	pt	12.64						0.40	13.04		13.04
Valor SX	oz	9.14						0.29	9.43		9.43
Surfactant	pt	1.31						0.04	1.35		1.35
Plant & Pre-Folding	12R-30		1.41	2.23	2.34			0.14	6.12	6.22	12.34
Soybean Seed LL	lb	64.00						1.52	65.52		65.52
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Soybeans Consultant	acre	6.50						0.13	6.63		6.63
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Liberty 280	oz	17.40						0.34	17.74		17.74
Dual Magnum	pt	13.80						0.27	14.07		14.07
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Liberty 280	oz	17.40						0.34	17.74		17.74
Zidua	oz	13.58						0.27	13.85		13.85
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Acephate 90SP	lb	5.57						0.04	5.61		5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	11.34						0.04	11.38		11.38
Grain Cart Soybean	700 bu		0.44	0.35	0.55			0.01	1.35	1.25	2.60
TOTALS		316.16	9.40	10.48	11.97	0.00	9.33	357.34	37.16	394.50	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 15.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	415.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.06	0.00	29.60	62.18	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	5.57	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.31	0.00	1.31	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.76	0.00	0.00	0.00	0.00	0.00	2.34	1.70	0.00	0.00	0.00	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	3.86	0.00	0.00	0.00	0.00	0.00	1.41	1.18	0.00	0.00	0.00	2.95
REPAIR & MAINTENANCE	2.67	0.00	0.00	0.00	0.00	0.00	2.23	0.86	0.00	0.00	0.00	4.72
INTEREST ON OP. CAP.	3.76	0.00	0.00	0.00	1.23	0.00	2.62	1.43	0.00	0.00	0.20	0.09
TOTAL DIRECT EXPENSES	82.75	0.00	0.00	0.00	40.10	0.00	113.31	73.85	0.00	0.00	25.06	22.27
NET INCOME	-82.75	0.00	0.00	0.00	-40.10	0.00	-113.31	-73.85	0.00	0.00	-25.06	393.53
NET INCOME TO DATE	-82.75	-82.75	-82.75	-82.75	-122.85	-122.85	-236.16	-310.01	-310.01	-310.01	-335.07	58.46

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 15.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, LL, stale seedbed, 12R 30"  
 Non-irrigated, Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			dollars										
PERCENT	YIELD	UNIT											
50	21.00	bu	-195 -232	-185 -222	-174 -212	-164 -201	-154 -191	-143 -180	-133 -170	-122 -160	-112 -149	-102 -139	-91 -128
60	25.20	bu	-165 -202	-153 -190	-140 -177	-128 -165	-115 -152	-103 -140	-90 -127	-78 -115	-65 -103	-53 -90	-40 -78
70	29.40	bu	-135 -172	-121 -158	-106 -143	-91 -129	-77 -114	-62 -100	-48 -85	-33 -70	-19 -56	-4 -41	9 -27
80	33.60	bu	-105 -142	-88 -126	-72 -109	-55 -92	-39 -76	-22 -59	-5 -42	10 -26	27 -9	44 6	60 23
90	37.80	bu	-75 -112	-56 -93	-38 -75	-19 -56	-0 -37	18 -19	36 -0	55 18	74 36	92 55	111 74
100	42.00	bu	-45 -82	-24 -61	-3 -41	16 -20	37 0	58 21	79 42	100 62	120 83	141 104	162 125
110	46.20	bu	-15 -52	7 -29	30 -6	53 16	76 38	98 61	121 84	144 107	167 130	190 153	213 176
120	50.40	bu	14 -22	39 2	64 27	89 52	114 77	139 102	164 127	189 152	214 177	239 201	264 226
130	54.60	bu	44 7	71 34	98 61	125 88	152 115	179 142	206 169	233 196	260 223	287 250	314 277
140	58.80	bu	74 37	103 66	132 95	162 124	191 153	220 183	249 212	278 241	307 270	336 299	365 328
150	63.00	bu	104 67	135 98	167 129	198 161	229 192	260 223	291 254	323 285	354 317	385 348	416 379

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

Table 16.A Estimated costs per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	4.0000	26.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.60	58.0000	34.80	_____
Dual Magnum	pt	13.80	1.0000	13.80	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.28	50.0000	64.00	_____
ADJUVANTS					
Surfactant	pt	3.28	1.1000	3.61	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	60.0000	16.20	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4713	6.36	_____
Harvesters	hour	13.51	0.1021	1.38	_____
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	13.51	0.4454	6.02	_____
DIESEL FUEL					
Tractors	gal	1.80	5.2753	9.51	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Roll-Out Pipe Irr.	gal	1.80	7.3316	13.20	_____
REPAIR & MAINTENANCE					
Implements	acre	5.47	1.0000	5.47	_____
Tractors	acre	2.98	1.0000	2.98	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	10.39	1.0000	10.39	_____
TOTAL DIRECT EXPENSES				427.72	_____
FIXED EXPENSES					
Implements	acre	11.96	1.0000	11.96	_____
Tractors	acre	18.75	1.0000	18.75	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Roll-Out Pipe Irr.	acre	53.42	1.0000	53.42	_____
TOTAL FIXED EXPENSES				97.90	_____
TOTAL SPECIFIED EXPENSES				525.62	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 16.B Summary of estimated costs and returns per acre  
 Soybeans, full-season, LL, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	60.0000	594.00	_____
				-----	
TOTAL INCOME				594.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	122.84	1.0000	122.84	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	64.00	1.0000	64.00	_____
ADJUVANTS	acre	3.61	1.0000	3.61	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
IRRIGATE LABOR	hour	9.06	0.3625	3.30	_____
OPERATOR LABOR	hour	13.51	0.5735	7.74	_____
UNALLOCATED LABOR	hour	13.51	0.4454	6.02	_____
DIESEL FUEL	gal	1.80	14.0006	25.22	_____
REPAIR & MAINTENANCE	acre	18.83	1.0000	18.83	_____
INTEREST ON OP. CAP.	acre	10.39	1.0000	10.39	_____
				-----	
TOTAL DIRECT EXPENSES				427.72	_____
RETURNS ABOVE DIRECT EXPENSES				166.28	_____
TOTAL FIXED EXPENSES				97.90	_____
				-----	
TOTAL SPECIFIED EXPENSES				525.62	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				68.38	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 16.C Estimated resource use for field operations, per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
							-----hours-----			
Soil Test	acre			0.33	Oct	0.3330				
Subsoiler	3 shank	MFWD 225	0.204	0.20	Oct		0.04	0.04	0.04	0.03
Lime (Spread)	ton			0.33	Oct	0.3330				
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	oz					32.0000				
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 LL	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	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
Liberty 280	oz					29.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	May		0.02	0.02	0.04	0.02
Liberty 280	oz					29.0000				
Zidua	oz					1.5000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Quadris Top SBX	oz					7.0000				
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				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 16.D Estimated costs for field operations, per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Subsoiler	3 shank		0.85	0.33	1.05			0.11	2.34	1.84	4.18
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Disk Harrow	24'		1.71	1.48	2.11			0.25	5.55	5.37	10.92
Field Cultivate Fld	24'		1.30	0.86	1.60			0.18	3.94	4.48	8.42
Bed/Lister-Roll-Fold	12R-30		1.30	0.87	1.60			0.18	3.95	3.79	7.74
App by Air ( 5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Select Max	pt	12.64						0.40	13.04		13.04
Valor SX	oz	9.14						0.29	9.43		9.43
Surfactant	pt	1.31						0.04	1.35		1.35
Plant & Pre-Folding	12R-30		1.41	2.23	2.34			0.14	6.12	6.22	12.34
Soybean Seed LL	lb	64.00						1.52	65.52		65.52
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Soybeans Consultant	acre	6.50						0.13	6.63		6.63
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Liberty 280	oz	17.40						0.34	17.74		17.74
Dual Magnum	pt	13.80						0.27	14.07		14.07
Spray (Broadcast)	60'		0.59	0.43	0.85			0.04	1.91	1.45	3.36
Liberty 280	oz	17.40						0.34	17.74		17.74
Zidua	oz	13.58						0.27	13.85		13.85
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Quadris Top SBX	oz	19.25						0.23	19.48		19.48
Surfactant	pt	0.33							0.33		0.33
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Acephate 90SP	lb	5.57						0.04	5.61		5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	16.20						0.06	16.26		16.26
Grain Cart Soybean	700 bu		0.44	0.35	0.55			0.01	1.35	1.25	2.60
Roll-Out Pipe Irr.	acre	8.25	14.52	7.48	4.36			0.55	35.16	56.95	92.11
TOTALS		355.35	25.22	18.83	17.93	0.00	10.39	427.72	97.90	525.62	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 16.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	594.00
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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.06	0.00	29.60	62.18	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	5.57	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.25	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.31	0.00	1.31	0.00	0.00	0.33	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.87	0.00	0.00	0.00	0.00	0.00	2.34	1.93	2.80	0.23	0.00	3.76
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	5.83	0.00	0.00	0.00	0.00	0.00	1.41	1.18	9.15	4.40	0.00	3.25
REPAIR & MAINTENANCE	3.85	0.00	0.00	0.00	0.00	0.00	2.23	0.86	5.73	1.31	0.00	4.85
INTEREST ON OP. CAP.	4.01	0.00	0.00	0.00	1.23	0.00	2.62	1.43	0.41	0.38	0.20	0.11
TOTAL DIRECT EXPENSES	88.26	0.00	0.00	0.00	40.10	0.00	113.31	74.08	26.34	32.40	25.06	28.17
NET INCOME	-88.26	0.00	0.00	0.00	-40.10	0.00	-113.31	-74.08	-26.34	-32.40	-25.06	565.83
NET INCOME TO DATE	-88.26	-88.26	-88.26	-88.26	-128.36	-128.36	-241.67	-315.75	-342.09	-374.49	-399.55	166.28

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 16.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, LL, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	dollars										
50	30.00	bu	-196 -294	-181 -279	-167 -265	-152 -250	-137 -235	-122 -220	-107 -205	-92 -190	-78 -175	-63 -161	-48 -146
60	36.00	bu	-153 -251	-136 -233	-118 -216	-100 -198	-82 -180	-64 -162	-46 -144	-29 -127	-11 -109	6 -91	24 -73
70	42.00	bu	-110 -208	-90 -188	-69 -167	-48 -146	-27 -125	-7 -104	13 -84	34 -63	55 -42	76 -21	96 -0
80	48.00	bu	-68 -165	-44 -142	-20 -118	3 -94	26 -70	50 -47	74 -23	98 0	122 24	145 47	169 71
90	54.00	bu	-25 -123	1 -96	28 -69	55 -42	81 -16	108 10	135 37	161 64	188 90	215 117	242 144
100	60.00	bu	17 -80	47 -50	77 -20	106 8	136 38	166 68	195 98	225 127	255 157	285 187	314 216
110	66.00	bu	60 -37	93 -4	126 28	158 60	191 93	224 126	256 158	289 191	322 224	354 256	387 289
120	72.00	bu	103 5	139 41	174 77	210 112	246 148	281 183	317 219	353 255	388 290	424 326	460 362
130	78.00	bu	146 48	185 87	223 125	262 164	300 203	339 241	378 280	416 318	455 357	494 396	532 434
140	84.00	bu	189 91	231 133	272 174	314 216	355 257	397 299	438 341	480 382	522 424	563 465	605 507
150	90.00	bu	232 134	276 179	321 223	366 268	410 312	455 357	499 401	544 446	588 490	633 535	677 580

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

Table 17.A Estimated costs per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	5.0000	32.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
Sodium Chlorate 5L	gal	5.39	0.6000	3.23	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Select Max	pt	12.64	1.0000	12.64	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.60	58.0000	34.80	_____
Dual Magnum	pt	13.80	1.0000	13.80	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.28	50.0000	64.00	_____
ADJUVANTS					
Surfactant	pt	3.28	1.1000	3.61	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
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	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4582	6.21	_____
Harvesters	hour	13.51	0.1021	1.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR	hour	13.48	0.3218	4.34	_____
DIESEL FUEL					
Tractors	gal	1.80	4.3236	7.80	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Contour Flood Irr.	gal	1.80	10.9974	19.80	_____
REPAIR & MAINTENANCE					
Implements	acre	4.76	1.0000	4.76	_____
Tractors	acre	2.39	1.0000	2.39	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	10.63	1.0000	10.63	_____
TOTAL DIRECT EXPENSES				456.57	_____
FIXED EXPENSES					
Implements	acre	9.06	1.0000	9.06	_____
Tractors	acre	15.01	1.0000	15.01	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Contour Flood Irr.	acre	42.34	1.0000	42.34	_____
TOTAL FIXED EXPENSES				80.18	_____
TOTAL SPECIFIED EXPENSES				536.75	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 17.B Summary of estimated costs and returns per acre  
 Soybeans, full-season, LL, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	53.0000	524.70	_____
				-----	
TOTAL INCOME				524.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	32.50	1.0000	32.50	_____
HARVEST AIDS	acre	5.63	1.0000	5.63	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	118.04	1.0000	118.04	_____
INSECTICIDES	acre	32.05	1.0000	32.05	_____
SEED/PLANTS	acre	64.00	1.0000	64.00	_____
ADJUVANTS	acre	3.61	1.0000	3.61	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	14.31	1.0000	14.31	_____
SURVEY & MARK LEVEES	acre	2.25	1.0000	2.25	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1100	1.00	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	13.51	0.5604	7.59	_____
UNALLOCATED LABOR	hour	13.48	0.3218	4.34	_____
DIESEL FUEL	gal	1.80	16.7147	30.11	_____
REPAIR & MAINTENANCE	acre	24.44	1.0000	24.44	_____
INTEREST ON OP. CAP.	acre	10.63	1.0000	10.63	_____
				-----	
TOTAL DIRECT EXPENSES				456.57	_____
RETURNS ABOVE DIRECT EXPENSES				68.13	_____
TOTAL FIXED EXPENSES				80.18	_____
				-----	
TOTAL SPECIFIED EXPENSES				536.75	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-12.05	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 17.C Estimated resource use for field operations, per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Nov	0.3330				
Disk Harrow	24'	MFWD 190	0.081	1.00	Nov		0.08	0.08	0.08	0.07
Lime (Spread)	ton			0.33	Nov	0.3330				
Custom Apply Fert	acre			1.00	Nov	1.0000				
Phosphorus (46% P2O5)	cwt					0.8700				
Potash (60% K2O)	cwt					1.3300				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Valor SX	oz					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 190	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed LL	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	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
Liberty 280	oz					29.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Liberty 280	oz					29.0000				
Zidua	oz					1.5000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Quadris Top SBX	oz					7.0000				
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				
IncidentalPestTrt \$8	acre					1.0000				
App by Air ( 5 gal)	appl			1.00	Sep	1.0000				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
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							0.56	0.56	0.98	0.32

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 17.D Estimated costs for field operations, per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.16	3.49		3.49
Disk Harrow	24'		1.44	1.38	2.11			0.23	5.16	4.78	9.94
Lime (Spread)	ton	15.32						0.73	16.05		16.05
Custom Apply Fert	acre	7.50						0.36	7.86		7.86
Phosphorus (46% P2O5)	cwt	16.31						0.77	17.08		17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44		26.44
Spray (Broadcast)	60'		0.59	0.43	0.85			0.07	1.94	1.45	3.39
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
Select Max	pt	12.64						0.45	13.09		13.09
Surfactant	pt	1.31						0.05	1.36		1.36
Valor SX	oz	9.14						0.33	9.47		9.47
Soybeans Consultant	acre	6.50						0.15	6.65		6.65
Plant & Pre-Folding	12R-30		1.19	2.16	2.34			0.14	5.83	5.72	11.55
Soybean Seed LL	lb	64.00						1.52	65.52		65.52
CruiserMaxx	oz	6.80						0.16	6.96		6.96
Optimize	oz	3.00						0.07	3.07		3.07
Boundary	pt	22.40						0.53	22.93		22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.31						0.03	1.34		1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.04	1.78	1.24	3.02
Liberty 280	oz	17.40						0.41	17.81		17.81
Dual Magnum	pt	13.80						0.33	14.13		14.13
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24	3.01
Liberty 280	oz	17.40						0.34	17.74		17.74
Zidua	oz	13.58						0.27	13.85		13.85
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Quadris Top SBX	oz	19.25						0.30	19.55		19.55
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Acephate 90SP	lb	5.57						0.07	5.64		5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58		6.58
Prevathon	oz	18.48						0.22	18.70		18.70
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06		8.06
App by Air ( 5 gal)	appl	6.50						0.05	6.55		6.55
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.23						0.03	3.26		3.26
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10	24.64
Haul Soybeans	bu	14.31						0.06	14.37		14.37
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09	2.33
Contour Flood Irr.	acre	2.25	23.01	15.00	5.58			0.75	46.59	49.56	96.15
TOTALS		375.64	30.11	24.44	15.75	0.00	10.63	456.57	80.18	536.75	

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 17.E Estimated monthly income and expense flows per acre  
 Soybeans, full-season, LL, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

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	524.70
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	5.63	0.00
FERTILIZERS	41.55	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	6.80	0.00	19.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	26.26	0.00	0.00	60.80	30.98	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	24.05	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.31	0.00	0.00	1.31	0.00	0.33	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	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	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	2.11	0.00	0.00	0.85	0.00	0.00	3.64	2.65	1.58	1.58	0.17	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.44	0.00	0.00	0.59	0.00	0.00	1.69	8.27	7.52	7.52	0.20	2.88
REPAIR & MAINTENANCE	1.38	0.00	0.00	0.43	0.00	0.00	2.55	9.37	2.97	2.97	0.08	4.69
INTEREST ON OP. CAP.	3.45	0.00	0.00	1.06	0.00	0.00	3.56	1.04	0.60	0.60	0.22	0.10
TOTAL DIRECT EXPENSES	76.08	0.00	0.00	30.50	0.00	0.00	153.85	54.56	38.75	49.72	27.96	25.15
NET INCOME	-76.08	0.00	0.00	-30.50	0.00	0.00	-153.85	-54.56	-38.75	-49.72	-27.96	499.55
NET INCOME TO DATE	-76.08	-76.08	-76.08	-106.58	-106.58	-106.58	-260.43	-314.99	-353.74	-403.46	-431.42	68.13

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 17.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, LL, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			dollars										
PERCENT	YIELD	UNIT											
50	26.50	bu	-252 -332	-239 -319	-226 -306	-213 -293	-200 -280	-187 -267	-173 -254	-160 -240	-147 -227	-134 -214	-121 -201
60	31.80	bu	-214 -294	-198 -279	-183 -263	-167 -247	-151 -231	-136 -216	-120 -200	-104 -184	-88 -168	-73 -153	-57 -137
70	37.10	bu	-176 -256	-158 -238	-140 -220	-121 -201	-103 -183	-84 -165	-66 -146	-48 -128	-29 -110	-11 -91	6 -73
80	42.40	bu	-138 -219	-117 -198	-96 -177	-75 -156	-54 -135	-33 -114	-12 -93	8 -72	29 -51	50 -30	71 -9
90	47.70	bu	-100 -181	-77 -157	-53 -133	-30 -110	-6 -86	17 -63	40 -39	64 -15	87 7	111 31	135 54
100	53.00	bu	-63 -143	-36 -116	-10 -90	15 -64	41 -38	68 -12	94 14	120 40	146 66	173 92	199 119
110	58.30	bu	-25 -105	3 -76	32 -47	61 -18	90 10	119 38	148 67	176 96	205 125	234 154	263 183
120	63.60	bu	12 -67	44 -35	75 -4	107 27	138 58	170 90	201 121	233 152	264 184	296 215	327 247
130	68.90	bu	50 -29	84 4	118 38	153 72	187 106	221 141	255 175	289 209	323 243	357 277	391 311
140	74.20	bu	88 8	125 45	162 81	198 118	235 155	272 192	308 228	345 265	382 302	419 338	455 375
150	79.50	bu	126 46	165 85	205 125	244 164	283 203	323 243	362 282	402 321	441 361	480 400	520 439

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

Table 18.A Estimated costs per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Pivot irrigation, 7.5 ac-in., All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	4.0000	26.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.60	29.0000	17.40	_____
Dual Magnum	pt	13.80	1.0000	13.80	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.78	6.4000	4.99	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.28	50.0000	64.00	_____
ADJUVANTS					
Surfactant	pt	3.28	0.6000	1.97	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	50.0000	13.50	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.1171	1.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL					
Tractors	gal	1.80	1.3567	2.44	_____
Harvesters	gal	1.80	1.3935	2.51	_____
1/2-mi Pivot Irr.	gal	1.80	16.4057	29.53	_____
REPAIR & MAINTENANCE					
Implements	acre	3.12	1.0000	3.12	_____
Tractors	acre	0.77	1.0000	0.77	_____
Harvesters	acre	3.49	1.0000	3.49	_____
1/2-mi Pivot Irr.	acre	11.57	1.0000	11.57	_____
INTEREST ON OP. CAP.	acre	7.82	1.0000	7.82	_____
TOTAL DIRECT EXPENSES				374.54	_____
FIXED EXPENSES					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	4.85	1.0000	4.85	_____
Harvesters	acre	13.77	1.0000	13.77	_____
1/2-mi Pivot Irr.	acre	41.81	1.0000	41.81	_____
TOTAL FIXED EXPENSES				65.83	_____
TOTAL SPECIFIED EXPENSES				440.37	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 18.B Summary of estimated costs and returns per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Pivot irrigation, 7.5 ac-in., All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	50.0000	495.00	_____
				-----	
TOTAL INCOME				495.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	26.05	1.0000	26.05	_____
HERBICIDES	acre	60.80	1.0000	60.80	_____
INSECTICIDES	acre	37.04	1.0000	37.04	_____
SEED/PLANTS	acre	64.00	1.0000	64.00	_____
ADJUVANTS	acre	1.97	1.0000	1.97	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	13.51	0.2193	2.96	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL	gal	1.80	19.1560	34.48	_____
REPAIR & MAINTENANCE	acre	18.95	1.0000	18.95	_____
INTEREST ON OP. CAP.	acre	7.82	1.0000	7.82	_____
				-----	
TOTAL DIRECT EXPENSES				374.54	_____
RETURNS ABOVE DIRECT EXPENSES				120.46	_____
TOTAL FIXED EXPENSES				65.83	_____
				-----	
TOTAL SPECIFIED EXPENSES				440.37	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				54.63	_____

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 18.C Estimated resource use for field operations, per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Pivot irrigation, 7.5 ac-in., All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
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 LL	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Liberty 280	oz					29.0000				
Dual Magnum	pt					1.0000				
App by Air ( 5 gal)	appl			1.00	Aug	1.0000				
Quadris Top SBX	oz					7.0000				
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				
Bifenthrin	oz					6.4000				
Incidental Pest				1.00	Sep					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	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							0.21	0.21	0.35	0.18

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 18.D Estimated costs for field operations, per acre  
 Soybeans, double crop after wheat, LL, 12R 30"  
 Pivot irrigation, 7.5 ac-in., All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus(46% P2O5)	cwt	16.31						0.77	17.08	17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44	26.44
Soybeans Consultant	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.41	2.23	2.31			0.12	6.07	6.22
Soybean Seed LL	lb	64.00						1.27	65.27	65.27
CruiserMaxx	oz	6.80						0.13	6.93	6.93
Optimize	oz	3.00						0.06	3.06	3.06
Boundary	pt	22.40						0.44	22.84	22.84
Gramoxone SL 2.0	oz	7.20						0.14	7.34	7.34
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.59	0.43	0.84			0.03	1.89	1.45
Liberty 280	oz	17.40						0.28	17.68	17.68
Dual Magnum	pt	13.80						0.22	14.02	14.02
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Quadris Top SBX	oz	19.25						0.23	19.48	19.48
Surfactant	pt	0.33							0.33	0.33
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Acephate 90SP	lb	5.57						0.07	5.64	5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Prevathon	oz	18.48						0.22	18.70	18.70
Surfactant	pt	0.33							0.33	0.33
Bifenthrin	oz	4.99						0.06	5.05	5.05
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06	8.06
Header -Soybean	25' Flex		2.51	4.37	2.57			0.04	9.49	15.10
Haul Soybeans	bu	13.50						0.05	13.55	13.55
Grain Cart Soybean	700 bu		0.44	0.35	0.54			0.01	1.34	1.25
1/2-mi Pivot Irr.	acre		29.53	11.57	0.47			0.70	42.27	41.81
<b>TOTALS</b>		<b>306.56</b>	<b>34.48</b>	<b>18.95</b>	<b>6.73</b>	<b>0.00</b>	<b>7.82</b>	<b>374.54</b>	<b>65.83</b>	<b>440.37</b>

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 18.E Estimated monthly income and expense flows per acre  
 Soybeans, double crop after wheat, LL, 12R 30"  
 Pivot irrigation, 7.5 ac-in., All Areas, Mississippi, 2018

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	495.00
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	41.55	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	6.80	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.60	31.20	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	29.04	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.66	0.00	0.00
CUSTOM FERTILIZE	7.50	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	15.32	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	6.50	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	3.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.35	0.89	0.04	0.00	3.11
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	10.27	12.40	8.86	0.00	2.95
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.51	1.17	0.55	0.00	4.72
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	0.00	0.00	0.16	2.57	0.73	0.93	0.11	0.10
TOTAL DIRECT EXPENSES	70.92	0.00	0.00	0.00	0.00	0.00	7.00	132.41	46.39	78.83	14.61	24.38
NET INCOME	-70.92	0.00	0.00	0.00	0.00	0.00	-7.00	-132.41	-46.39	-78.83	-14.61	470.62
NET INCOME TO DATE	-70.92	-70.92	-70.92	-70.92	-70.92	-70.92	-77.92	-210.33	-256.72	-335.55	-350.16	120.46

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 18.F estimated returns for various price/yield combinations, per acre  
 Soybeans, double crop after wheat, LL, 12R 30"  
 Pivot irrigation, 7.5 ac-in., All Areas, Mississippi, 2018

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-182 -247	-169 -235	-157 -223	-145 -210	-132 -198	-120 -186	-107 -173	-95 -161	-83 -148	-70 -136	-58 -124
60	30.00	bu	-146 -212	-131 -197	-116 -182	-101 -167	-86 -152	-72 -137	-57 -123	-42 -108	-27 -93	-12 -78	2 -63
70	35.00	bu	-110 -176	-93 -159	-75 -141	-58 -124	-41 -107	-23 -89	-6 -72	10 -55	28 -37	45 -20	62 -3
80	40.00	bu	-74 -140	-55 -120	-35 -101	-15 -81	4 -61	24 -41	43 -21	63 -2	83 17	103 37	123 57
90	45.00	bu	-39 -104	-16 -82	5 -60	27 -38	50 -15	72 6	94 28	116 51	139 73	161 95	183 117
100	50.00	bu	-3 -69	21 -44	46 -19	70 5	95 29	120 54	145 79	169 104	194 128	219 153	244 178
110	55.00	bu	32 -33	59 -6	86 21	114 48	141 75	168 102	195 130	223 157	250 184	277 211	304 238
120	60.00	bu	68 2	97 32	127 61	157 91	187 121	216 150	246 180	276 210	305 240	335 269	365 299
130	65.00	bu	104 38	136 70	168 102	200 134	232 166	264 199	297 231	329 263	361 295	393 327	425 359
140	70.00	bu	139 73	174 108	209 143	243 177	278 212	313 247	347 281	382 316	416 351	451 385	486 420
150	75.00	bu	175 109	212 146	249 183	286 221	324 258	361 295	398 332	435 369	472 406	509 443	546 480

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

Table 19.A Estimated costs per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	2.0000	13.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.6600	12.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.40	2.0000	4.80	_____
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.60	58.0000	34.80	_____
Dual Magnum	pt	13.80	1.0000	13.80	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.28	50.0000	64.00	_____
ADJUVANTS					
Surfactant	pt	3.28	0.6000	1.97	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	43.0000	11.61	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3128	4.23	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR	hour	13.49	0.3734	5.04	_____
DIESEL FUEL					
Tractors	gal	1.80	3.0592	5.52	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	4.69	1.0000	4.69	_____
Tractors	acre	1.68	1.0000	1.68	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	7.73	1.0000	7.73	_____
TOTAL DIRECT EXPENSES				307.65	_____
FIXED EXPENSES					
Implements	acre	9.30	1.0000	9.30	_____
Tractors	acre	10.65	1.0000	10.65	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				33.72	_____
TOTAL SPECIFIED EXPENSES				341.37	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 19.B Summary of estimated costs and returns per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	43.0000	425.70	_____
				-----	
TOTAL INCOME				425.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.00	1.0000	13.00	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	31.36	1.0000	31.36	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	101.06	1.0000	101.06	_____
INSECTICIDES	acre	5.57	1.0000	5.57	_____
SEED/PLANTS	acre	64.00	1.0000	64.00	_____
ADJUVANTS	acre	1.97	1.0000	1.97	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1051	0.96	_____
OPERATOR LABOR	hour	13.51	0.4149	5.61	_____
UNALLOCATED LABOR	hour	13.49	0.3734	5.04	_____
DIESEL FUEL	gal	1.80	4.4528	8.03	_____
REPAIR & MAINTENANCE	acre	9.86	1.0000	9.86	_____
INTEREST ON OP. CAP.	acre	7.73	1.0000	7.73	_____
				-----	
TOTAL DIRECT EXPENSES				307.65	_____
RETURNS ABOVE DIRECT EXPENSES				118.05	_____
TOTAL FIXED EXPENSES				33.72	_____
				-----	
TOTAL SPECIFIED EXPENSES				341.37	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				84.33	_____

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 19.C Estimated resource use for field operations, per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER UNIT	ALLOC LABOR	UNALL LABOR	
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Disk Harrow	24'	MFWD 190	0.081	1.00	Oct		0.08	0.08	0.07	
Field Cultivate Fld	24'	MFWD 190	0.062	1.00	Oct		0.06	0.06	0.05	
App by Air ( 5 gal)	appl			1.00	Mar	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
2,4-D Amine 4	pt					2.0000				
Plant - Folding	12R-30	MFWD 190	0.062	1.00	Apr		0.06	0.06	0.05	
Soybean Seed LL	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary	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	
Liberty 280	oz					29.0000				
Dual Magnum	pt					1.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	May		0.02	0.02	0.04	
Liberty 280	oz					29.0000				
Zidua	oz					1.5000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Aug		0.02	0.02	0.04	
Acephate 90SP	lb					0.7500				
App by Air ( 5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	oz					16.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Sep		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	0.01	
TOTALS							0.41	0.41	0.52	0.37

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 19.D Estimated costs for field operations, per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus (46% P2O5)	cwt	12.38						0.59	12.97	12.97
Potash (60% K2O)	cwt	18.98						0.90	19.88	19.88
Disk Harrow	24'		1.44	1.38	2.11			0.23	5.16	4.78
Field Cultivate Fld	24'		1.10	0.79	1.60			0.17	3.66	4.03
App by Air ( 5 gal)	appl	6.50						0.18	6.68	6.68
Glyphosate 3lbs a.e	oz	4.48						0.12	4.60	4.60
2,4-D Amine 4	pt	4.80						0.13	4.93	4.93
Plant - Folding	12R-30		1.11	1.83	2.18			0.12	5.24	5.00
Soybean Seed LL	lb	64.00						1.52	65.52	65.52
CruiserMaxx	oz	6.80						0.16	6.96	6.96
Boundary	pt	22.40						0.53	22.93	22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37	7.37
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24
Liberty 280	oz	17.40						0.34	17.74	17.74
Dual Magnum	pt	13.80						0.27	14.07	14.07
Soybeans Consultant	acre	6.50						0.13	6.63	6.63
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24
Liberty 280	oz	17.40						0.34	17.74	17.74
Zidua	oz	13.58						0.27	13.85	13.85
Spray (Broadcast)	60'		0.50	0.39	0.85			0.01	1.75	1.24
Acephate 90SP	lb	5.57						0.04	5.61	5.61
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10
Haul Soybeans	bu	11.61						0.05	11.66	11.66
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09
TOTALS		270.42	8.03	9.86	11.61	0.00	7.73	307.65	33.72	341.37

Note: Cost of production estimates are based on 2017 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 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 19.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
-----dollars-----												
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	425.70
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	2.40	0.00
FERTILIZERS	31.36	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.28	29.60	62.18	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	5.57	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	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	15.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.71	0.00	0.00	0.00	0.00	0.00	2.18	1.70	0.00	0.00	0.85	3.17
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.54	0.00	0.00	0.00	0.00	0.00	1.11	1.00	0.00	0.00	0.50	2.88
REPAIR & MAINTENANCE	2.17	0.00	0.00	0.00	0.00	0.00	1.83	0.78	0.00	0.00	0.39	4.69
INTEREST ON OP. CAP.	3.14	0.00	0.00	0.00	0.00	0.43	2.53	1.41	0.00	0.00	0.13	0.09
TOTAL DIRECT EXPENSES	69.07	0.00	0.00	0.00	0.00	16.21	109.36	73.57	0.00	0.00	17.00	22.44
NET INCOME	-69.07	0.00	0.00	0.00	0.00	-16.21	-109.36	-73.57	0.00	0.00	-17.00	403.26
NET INCOME TO DATE	-69.07	-69.07	-69.07	-69.07	-69.07	-85.28	-194.64	-268.21	-268.21	-268.21	-285.21	118.05

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 19.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, LL, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			dollars										
PERCENT	YIELD	UNIT											
50	21.50	bu	-142	-131	-120	-110	-99	-88	-78	-67	-57	-46	-35
			-175	-165	-154	-143	-133	-122	-112	-101	-90	-80	-69
60	25.80	bu	-111	-98	-85	-73	-60	-47	-34	-22	-9	3	16
			-145	-132	-119	-106	-94	-81	-68	-55	-42	-30	-17
70	30.10	bu	-80	-65	-50	-35	-21	-6	8	23	38	53	68
			-114	-99	-84	-69	-54	-39	-24	-10	4	19	34
80	34.40	bu	-49	-32	-15	1	18	35	52	69	86	103	120
			-83	-66	-49	-32	-15	1	18	35	52	69	86
90	38.70	bu	-19	0	19	38	57	76	95	114	134	153	172
			-52	-33	-14	4	23	42	62	81	100	119	138
100	43.00	bu	11	32	54	75	96	118	139	160	181	203	224
			-22	-0	20	41	63	84	105	126	148	169	190
110	47.30	bu	42	65	89	112	136	159	182	206	229	253	276
			8	32	55	78	102	125	149	172	195	219	242
120	51.60	bu	73	98	124	149	175	200	226	251	277	303	328
			39	64	90	116	141	167	192	218	243	269	294
130	55.90	bu	103	131	159	186	214	242	269	297	325	352	380
			70	97	125	153	180	208	236	263	291	319	346
140	60.20	bu	134	164	194	224	253	283	313	343	373	402	432
			100	130	160	190	220	249	279	309	339	369	398
150	64.50	bu	165	197	229	261	293	325	356	388	420	452	484
			131	163	195	227	259	291	323	355	387	419	450

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

Table 20.A Estimated costs per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	1.0000	6.50	_____
HARVEST AIDS					
Gramoxone SL	oz	0.15	16.0000	2.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.6600	12.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Select Max	pt	12.64	1.0000	12.64	_____
Fierce	oz	7.54	3.5000	26.39	_____
Gramoxone SL 2.0	oz	0.15	96.0000	14.40	_____
Boundary	pt	11.20	2.0000	22.40	_____
Liberty 280	oz	0.60	58.0000	34.80	_____
Dual Magnum	pt	13.80	1.0000	13.80	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Dimilin 2L	oz	1.45	1.0000	1.45	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Baythroid XL	oz	2.65	1.0650	2.82	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.28	50.0000	64.00	_____
ADJUVANTS					
Surfactant	pt	3.28	1.4500	4.76	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	40.0000	10.80	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4647	6.27	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1523	1.38	_____
UNALLOCATED LABOR					
	hour	13.48	0.5102	6.88	_____
DIESEL FUEL					
Tractors	gal	1.80	4.6579	8.40	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	6.17	1.0000	6.17	_____
Tractors	acre	2.58	1.0000	2.58	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	7.52	1.0000	7.52	_____
TOTAL DIRECT EXPENSES				371.08	_____
FIXED EXPENSES					
Implements	acre	11.91	1.0000	11.91	_____
Tractors	acre	16.27	1.0000	16.27	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				41.95	_____
TOTAL SPECIFIED EXPENSES				413.03	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 20.B Summary of estimated costs and returns per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	40.0000	396.00	_____
				-----	
TOTAL INCOME				396.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	31.36	1.0000	31.36	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	142.49	1.0000	142.49	_____
INSECTICIDES	acre	22.75	1.0000	22.75	_____
SEED/PLANTS	acre	64.00	1.0000	64.00	_____
ADJUVANTS	acre	4.75	1.0000	4.75	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1523	1.38	_____
OPERATOR LABOR	hour	13.51	0.5669	7.65	_____
UNALLOCATED LABOR	hour	13.48	0.5102	6.88	_____
DIESEL FUEL	gal	1.80	6.0515	10.91	_____
REPAIR & MAINTENANCE	acre	12.24	1.0000	12.24	_____
INTEREST ON OP. CAP.	acre	7.52	1.0000	7.52	_____
				-----	
TOTAL DIRECT EXPENSES				371.08	_____
RETURNS ABOVE DIRECT EXPENSES				24.92	_____
TOTAL FIXED EXPENSES				41.95	_____
				-----	
TOTAL SPECIFIED EXPENSES				413.03	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-17.03	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 20.C Estimated resource use for field operations, per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
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
Bed/Lister-Roll-Fold	12R-30	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.06	0.05
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Fierce	oz					3.5000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 190	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed LL	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary	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
Liberty 280	oz					29.0000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Liberty 280	oz					29.0000				
Zidua	oz					1.5000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
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				
Gramoxone SL	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
<b>TOTALS</b>							<b>0.56</b>	<b>0.56</b>	<b>0.71</b>	<b>0.51</b>

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 20.D Estimated costs for field operations, per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.01	3.34	3.34
Lime (Spread)	ton	15.32						0.06	15.38	15.38
Disk Harrow	24'		1.44	1.38	2.11			0.02	4.95	4.78 9.73
Field Cultivate Fld	24'		1.10	0.79	1.60			0.01	3.50	4.03 7.53
Bed/Lister-Roll-Fold	12R-30		1.30	0.87	1.60			0.01	3.78	3.79 7.57
Spray (Broadcast)	60'		0.50	0.39	0.85			0.06	1.80	1.24 3.04
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64	4.64
Select Max	pt	12.64						0.45	13.09	13.09
Surfactant	pt	1.31						0.05	1.36	1.36
Custom Apply Fert	acre	7.50						0.21	7.71	7.71
Phosphorus (46% P2O5)	cwt	12.38						0.34	12.72	12.72
Potash (60% K2O)	cwt	18.98						0.53	19.51	19.51
Spray (Broadcast)	60'		0.50	0.39	0.85			0.05	1.79	1.24 3.03
Fierce	oz	26.39						0.73	27.12	27.12
Gramoxone SL 2.0	oz	7.20						0.20	7.40	7.40
Surfactant	pt	1.31						0.04	1.35	1.35
Soybeans Consultant	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.19	2.16	2.34			0.14	5.83	5.72 11.55
Soybean Seed LL	lb	64.00						1.52	65.52	65.52
CruiserMaxx	oz	6.80						0.16	6.96	6.96
Boundary	pt	22.40						0.53	22.93	22.93
Gramoxone SL 2.0	oz	7.20						0.17	7.37	7.37
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.50	0.39	0.85			0.04	1.78	1.24 3.02
Liberty 280	oz	17.40						0.41	17.81	17.81
Dual Magnum	pt	13.80						0.33	14.13	14.13
Spray (Broadcast)	60'		0.50	0.39	0.85			0.03	1.77	1.24 3.01
Liberty 280	oz	17.40						0.34	17.74	17.74
Zidua	oz	13.58						0.27	13.85	13.85
Spray (Broadcast)	60'		0.25	0.20	0.42			0.01	0.88	0.62 1.50
Dimilin 2L	oz	1.45						0.02	1.47	1.47
Surfactant	pt	0.16							0.16	0.16
Spray (Broadcast)	60'		0.50	0.39	0.85			0.02	1.76	1.24 3.00
Prevathon	oz	18.48						0.22	18.70	18.70
Spray (Broadcast)	60'		0.25	0.20	0.42			0.01	0.88	0.62 1.50
Baythroid XL	oz	2.82						0.03	2.85	2.85
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	25' Flex		2.51	4.37	2.62			0.04	9.54	15.10 24.64
Haul Soybeans	bu	10.80						0.04	10.84	10.84
Grain Cart Soybean	700 bu		0.37	0.32	0.55				1.24	1.09 2.33
TOTALS		324.50	10.91	12.24	15.91	0.00	7.52	371.08	41.95	413.03

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 20.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2018

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	396.00
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	2.40	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	31.36	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	6.80	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	17.12	0.00	33.59	60.80	30.98	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	1.45	21.30	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.31	0.00	1.31	1.31	0.00	0.16	0.00	0.66	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	7.50	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.32
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.85	0.00	0.85	3.19	0.85	0.42	1.27	0.00	8.48
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.50	0.00	0.50	1.69	0.50	0.25	0.75	0.00	6.72
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.39	0.00	0.39	2.55	0.39	0.20	0.59	0.00	7.73
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.72	0.00	2.10	3.48	0.64	0.03	0.28	0.08	0.19
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.89	0.00	77.60	150.32	33.36	2.51	24.19	9.64	52.57
NET INCOME	0.00	0.00	0.00	-20.89	0.00	-77.60	-150.32	-33.36	-2.51	-24.19	-9.64	343.43
NET INCOME TO DATE	0.00	0.00	0.00	-20.89	-20.89	-98.49	-248.81	-282.17	-284.68	-308.87	-318.51	24.92

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 20.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, LL, May planted, 12R 30"  
 Non-Delta Area, Mississippi, 2018

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37		
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-217 -259	-207 -249	-197 -239	-187 -229	-177 -219	-167 -209	-157 -199	-147 -189	-137 -179	-128 -170	-118 -160
60	24.00	bu	-188 -230	-176 -218	-164 -206	-152 -194	-141 -182	-129 -171	-117 -159	-105 -147	-93 -135	-81 -123	-69 -111
70	28.00	bu	-159 -201	-146 -188	-132 -174	-118 -160	-104 -146	-90 -132	-76 -118	-62 -104	-49 -90	-35 -77	-21 -63
80	32.00	bu	-131 -173	-115 -157	-99 -141	-83 -125	-67 -109	-52 -94	-36 -78	-20 -62	-4 -46	11 -30	27 -14
90	36.00	bu	-102 -144	-84 -126	-67 -109	-49 -91	-31 -73	-13 -55	4 -37	22 -19	39 -2	57 15	75 33
100	40.00	bu	-74 -116	-54 -96	-34 -76	-14 -56	5 -36	24 -17	44 2	64 22	84 42	104 62	123 81
110	44.00	bu	-45 -87	-23 -65	-1 -43	19 -22	41 -0	63 21	85 43	106 65	128 86	150 108	172 130
120	48.00	bu	-16 -58	6 -35	30 -11	54 12	78 36	101 60	125 83	149 107	173 131	196 155	220 178
130	52.00	bu	11 -30	37 -4	63 21	88 47	114 72	140 98	166 124	191 149	217 175	243 201	269 227
140	56.00	bu	40 -1	68 26	95 53	123 81	151 109	178 137	206 164	234 192	262 220	289 247	317 275
150	60.00	bu	69 27	98 56	128 86	158 116	187 145	217 175	247 205	276 234	306 264	336 294	366 324

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.

Table 21.A Estimated costs per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	3.0000	19.50	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	0.8700	16.31	_____
Potash (60% K2O)	cwt	18.98	1.3300	25.24	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	1.6000	6.80	_____
HERBICIDES					
Boundary	pt	11.20	2.0000	22.40	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.60	29.0000	17.40	_____
Dual Magnum	pt	13.80	1.0000	13.80	_____
INSECTICIDES					
Acephate 90SP	lb	7.43	0.7500	5.57	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.78	6.4000	4.99	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.28	50.0000	64.00	_____
ADJUVANTS					
Surfactant	pt	3.28	0.5000	1.64	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Soybeans	bu	0.27	25.0000	6.75	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.3330	15.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Optimize	oz	2.14	1.4000	3.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.1171	1.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR					
	hour	13.57	0.1886	2.56	_____
DIESEL FUEL					
Tractors	gal	1.80	1.3567	2.44	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	3.12	1.0000	3.12	_____
Tractors	acre	0.77	1.0000	0.77	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	6.79	1.0000	6.79	_____
TOTAL DIRECT EXPENSES				299.11	_____
FIXED EXPENSES					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	4.85	1.0000	4.85	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				24.02	_____
TOTAL SPECIFIED EXPENSES				323.13	_____

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 21.B Summary of estimated costs and returns per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.90	25.0000	247.50	_____
				-----	
TOTAL INCOME				247.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
FERTILIZERS	acre	41.55	1.0000	41.55	_____
FUNGICIDES	acre	6.80	1.0000	6.80	_____
HERBICIDES	acre	60.80	1.0000	60.80	_____
INSECTICIDES	acre	37.04	1.0000	37.04	_____
SEED/PLANTS	acre	64.00	1.0000	64.00	_____
ADJUVANTS	acre	1.64	1.0000	1.64	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	15.32	1.0000	15.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	3.00	1.0000	3.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
OPERATOR LABOR	hour	13.51	0.2193	2.96	_____
UNALLOCATED LABOR	hour	13.57	0.1886	2.56	_____
DIESEL FUEL	gal	1.80	2.7503	4.95	_____
REPAIR & MAINTENANCE	acre	7.38	1.0000	7.38	_____
INTEREST ON OP. CAP.	acre	6.79	1.0000	6.79	_____
				-----	
TOTAL DIRECT EXPENSES				299.11	_____
RETURNS ABOVE DIRECT EXPENSES				-51.61	_____
TOTAL FIXED EXPENSES				24.02	_____
				-----	
TOTAL SPECIFIED EXPENSES				323.13	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-75.63	_____

Note: Cost of production estimates are based on 2017 input prices.  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 21.C Estimated resource use for field operations, per acre  
 Soybeans, double crop after wheat, LL, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Nov	0.3330				
Lime (Spread)	ton			0.33	Nov	0.3330				
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 LL	lb					50.0000				
CruiserMaxx	oz					1.6000				
Optimize	oz					1.4000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Jul		0.02	0.02	0.04	0.02
Liberty 280	oz					29.0000				
Dual Magnum	pt					1.0000				
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				
Bifenthrin	oz					6.4000				
Incidental Pest				1.00	Sep					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	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					25.0000				
Grain Cart Soybean	700 bu	MFWD 225	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.21	0.21	0.30	0.18

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 21.D Estimated costs for field operations, per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	15.32						0.73	16.05	16.05
Custom Apply Fert	acre	7.50						0.36	7.86	7.86
Phosphorus(46% P2O5)	cwt	16.31						0.77	17.08	17.08
Potash (60% K2O)	cwt	25.24						1.20	26.44	26.44
Soybeans Consultant	acre	6.50						0.15	6.65	6.65
Plant & Pre-Folding	12R-30		1.41	2.23	2.31			0.12	6.07	6.22
Soybean Seed LL	lb	64.00						1.27	65.27	65.27
CruiserMaxx	oz	6.80						0.13	6.93	6.93
Optimize	oz	3.00						0.06	3.06	3.06
Boundary	pt	22.40						0.44	22.84	22.84
Gramoxone SL 2.0	oz	7.20						0.14	7.34	7.34
Surfactant	pt	1.31						0.03	1.34	1.34
Spray (Broadcast)	60'		0.59	0.43	0.84			0.03	1.89	1.45
Liberty 280	oz	17.40						0.28	17.68	17.68
Dual Magnum	pt	13.80						0.22	14.02	14.02
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Acephate 90SP	lb	5.57						0.07	5.64	5.64
App by Air ( 5 gal)	appl	6.50						0.08	6.58	6.58
Prevathon	oz	18.48						0.22	18.70	18.70
Surfactant	pt	0.33							0.33	0.33
Bifenthrin	oz	4.99						0.06	5.05	5.05
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.05	6.55	6.55
IncidentalPestTrt \$8	acre	8.00						0.06	8.06	8.06
Header -Soybean	25' Flex		2.51	4.37	2.57			0.04	9.49	15.10
Haul Soybeans	bu	6.75						0.03	6.78	6.78
Grain Cart Soybean	700 bu		0.44	0.35	0.54			0.01	1.34	1.25
TOTALS		273.73	4.95	7.38	6.26	0.00	6.79	299.11	24.02	323.13

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 21.E Estimated monthly income and expense flows per acre  
Soybeans, double crop after wheat, 1L, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2018

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	247.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.00	6.50	0.00
FERTILIZERS	41.55	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	6.80	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.60	31.20	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	29.04	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.33	0.00	0.00
CUSTOM FERTILIZE	7.50	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
CUSTOM LIME	15.32	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	6.50	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	3.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	0.84	0.00	0.00	3.11
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	1.41	0.59	0.00	0.00	2.95
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	0.43	0.00	0.00	4.72
INTEREST ON OP. CAP.	3.22	0.00	0.00	0.00	0.00	0.00	0.15	2.19	0.53	0.51	0.11	0.08
TOTAL DIRECT EXPENSES	70.92	0.00	0.00	0.00	0.00	0.00	6.65	112.85	33.59	42.88	14.61	17.61
NET INCOME	-70.92	0.00	0.00	0.00	0.00	0.00	-6.65	-112.85	-33.59	-42.88	-14.61	229.89
NET INCOME TO DATE	-70.92	-70.92	-70.92	-70.92	-70.92	-70.92	-77.57	-190.42	-224.01	-266.89	-281.50	-51.61

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

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> 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 21.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, double crop after wheat, LL, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2018

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.42	7.92	8.41	8.91	9.40	9.90	10.39	10.89	11.38	11.88	12.37
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-202	-196	-190	-184	-178	-171	-165	-159	-153	-147	-141
			-226	-220	-214	-208	-202	-195	-189	-183	-177	-171	-165
60	15.00	bu	-185	-177	-170	-162	-155	-147	-140	-133	-125	-118	-110
			-209	-201	-194	-186	-179	-171	-164	-157	-149	-142	-134
70	17.50	bu	-167	-158	-149	-141	-132	-123	-115	-106	-97	-89	-80
			-191	-182	-173	-165	-156	-147	-139	-130	-121	-113	-104
80	20.00	bu	-149	-139	-129	-119	-109	-99	-89	-79	-70	-60	-50
			-173	-163	-153	-143	-133	-123	-113	-103	-94	-84	-74
90	22.50	bu	-131	-120	-109	-97	-86	-75	-64	-53	-42	-31	-19
			-155	-144	-133	-121	-110	-99	-88	-77	-66	-55	-44
100	25.00	bu	-113	-101	-88	-76	-63	-51	-39	-26	-14	-2	10
			-137	-125	-112	-100	-88	-75	-63	-50	-38	-26	-13
110	27.50	bu	-95	-81	-68	-54	-41	-27	-13	-0	13	26	40
			-119	-106	-92	-78	-65	-51	-37	-24	-10	2	16
120	30.00	bu	-77	-62	-48	-33	-18	-3	11	26	41	55	70
			-101	-86	-72	-57	-42	-27	-12	2	17	31	46
130	32.50	bu	-59	-43	-27	-11	4	20	36	52	68	84	101
			-83	-67	-51	-35	-19	-3	12	28	44	60	77
140	35.00	bu	-41	-24	-7	10	27	44	62	79	96	113	131
			-65	-48	-31	-13	3	20	37	55	72	89	107
150	37.50	bu	-24	-5	13	31	50	68	87	105	124	143	161
			-48	-29	-10	7	26	44	63	81	100	118	137

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



## APPENDIX

Appendix Table 1. Tractors/Harvesters: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Mississippi, 2018

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	-----\$/hour-----					
Combine (250-299 hp)	265 hp	328,000	300	8	13.64	13.51	24.55	34.16	72.22	134.81	207.04
Combine (300-349 hp)	325 hp	355,000	300	8	16.73	13.51	30.11	36.97	80.60	145.91	226.51
Combine (350-399 hp)	355 hp	354,000	300	8	18.27	13.51	32.88	36.87	83.27	145.50	228.77
Combine (400-449 hp)	425 hp	413,000	300	8	21.87	13.51	39.37	43.02	95.90	169.75	265.65
Combine (450-499hp)	475 hp	427,000	300	8	24.44	13.51	44.00	44.47	101.99	175.50	277.50
Tractor( 20-39hp)CB	MFWD 30	28,300	600	8	1.54	13.51	2.77	0.88	17.17	5.32	22.49
Tractor( 20-39hp)RB	MFWD 30	20,000	600	8	1.54	13.51	2.77	0.62	16.91	3.76	20.67
Tractor( 40-59hp)CB	2WD 50	32,300	600	8	2.57	13.51	4.63	1.00	19.15	6.07	25.22
Tractor( 40-59hp)CB	MFWD 50	39,500	600	8	2.57	13.51	4.63	1.23	19.37	7.42	26.80
Tractor( 40-59hp)RB	2WD 50	21,100	600	8	2.57	13.51	4.63	0.65	18.80	3.96	22.76
Tractor( 40-59hp)RB	MFWD 50	24,800	600	8	2.57	13.51	4.63	0.77	18.91	4.66	23.58
Tractor( 60-89hp)CB	2WD 75	49,300	600	8	3.86	13.51	6.94	1.54	21.99	9.27	31.27
Tractor( 60-89hp)CB	MFWD 75	52,500	600	8	3.86	13.51	6.94	1.64	22.09	9.87	31.97
Tractor( 60-89hp)RB	2WD 75	33,100	600	8	3.86	13.51	6.94	1.03	21.49	6.22	27.71
Tractor( 60-89hp)RB	MFWD 75	37,800	600	8	3.86	13.51	6.94	1.18	21.63	7.10	28.74
Tractor( 90-119hp)CB	2WD 105	66,300	600	8	5.40	13.51	9.72	2.07	25.31	12.46	37.77
Tractor( 90-119hp)CB	MFWD 105	76,100	600	8	5.40	13.51	9.72	2.37	25.61	14.31	39.92
Tractor( 90-119hp)RB	2WD 105	60,300	600	8	5.40	13.51	9.72	1.88	25.12	11.33	36.46
Tractor( 90-119hp)RB	MFWD 105	67,800	600	8	5.40	13.51	9.72	2.11	25.35	12.75	38.10
Tractor(120-139hp)CB	2WD 130	103,000	600	8	6.69	13.51	12.04	3.21	28.77	19.36	48.14
Tractor(120-139hp)CB	MFWD 130	113,000	600	8	6.69	13.51	12.04	3.53	29.08	21.25	50.33
Tractor(140-159hp)CB	MFWD 150	131,000	600	8	7.72	13.51	13.89	4.09	31.50	24.63	56.13
Tractor(160-179hp)CB	MFWD 170	153,000	600	8	8.75	13.51	15.75	4.78	34.04	30.10	64.14
Tractor(180-199hp)CB	MFWD 190	173,000	600	8	9.77	13.51	17.60	5.40	36.51	34.04	70.56
Tractor(200-249hp)CB	MFWD 225	210,000	600	8	11.58	13.51	20.84	6.56	40.91	41.32	82.24
Tractor(250-349hp)CB	4WD 300	285,000	600	8	15.44	13.51	27.79	8.90	50.21	56.08	106.29
Tractor(250-349hp)CB	MFWD 300	272,000	600	8	15.44	13.51	27.79	8.50	49.80	53.52	103.32
Tractor(250-349hp)CB	Track 300	318,000	600	8	15.44	13.51	27.79	9.93	51.24	62.57	113.81
Tractor(350-449hp)	Track 400	341,000	600	8	20.58	13.51	37.06	10.65	61.22	67.10	128.32
Tractor(350-449hp)CB	4WD 400	331,000	600	8	20.58	13.51	37.06	10.34	60.91	65.13	126.04
Tractor(450-550hp)CB	4WD 500	367,000	600	8	25.73	13.51	46.32	11.46	71.30	72.21	143.52
Tractor(450-550hp)CB	Track 500	445,000	600	8	25.73	13.51	46.32	13.90	73.74	87.56	161.30
Utility Vehicle	800 CC	10,000	200	8	0.70	13.51	1.47	1.56	16.54	6.16	22.70
Utility Vehicle	900 CC	12,600	200	8	1.00	13.51	2.10	1.96	17.57	7.76	25.34
Utility Vehicle-mule	600 CC	8,340	200	8	0.50	13.51	1.05	1.30	15.86	5.14	21.00

## Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

CB = Cab, RB = Roll Bar

Appendix Table 2. Self-propelled machines: estimated purchase price, annual use, useful life, fuel use, performance rate, and direct and fixed cost per acre, Mississippi, 2018

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Perf Rate	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	hr/ac	-----\$/acre-----					
Cotton Picker	4R-38 (250)	268,000	200	8	12.86	0.257	5.81	5.97	10.79	22.58	42.59	65.17
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	5.81	8.35	14.13	28.31	55.78	84.09
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	3.88	5.58	9.61	19.08	37.92	57.01
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	4.92	7.17	15.85	27.96	62.56	90.53
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	3.88	5.66	12.51	22.07	49.39	71.47
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	5.81	9.55	21.58	36.96	85.18	122.14
Cotton Picker/Modu	6R-30 (500)	764,000	200	8	25.73	0.218	4.92	10.11	26.05	41.08	102.80	143.89
Cotton Picker/Module	6R-38 (500)	765,000	200	8	25.73	0.172	3.88	7.98	20.59	32.46	81.26	113.73
Dry Applicator SP	70'300cuft	306,000	350	8	16.98	0.015	0.27	0.46	0.24	0.98	1.62	2.61
Sprayer 600-750gal	60' 175hp	193,000	350	8	9.00	0.017	0.31	0.28	0.18	0.78	1.19	1.98
Sprayer 600-825gal	80' 175hp	202,000	350	8	11.81	0.013	0.23	0.28	0.14	0.66	0.94	1.60
Sprayer 600-825gal	90' 250hp	279,000	350	8	12.73	0.011	0.21	0.26	0.17	0.65	1.15	1.81
Sprayer 800gal	100' 250hp	280,000	350	8	14.15	0.010	0.19	0.26	0.15	0.61	1.04	1.66
Sprayer 800gal	80' 250hp	254,000	350	8	12.86	0.013	0.23	0.30	0.17	0.72	1.18	1.90
Sprayer 1000-1400gal	90' 275hp	299,000	350	8	14.15	0.010	0.19	0.26	0.16	0.62	1.11	1.74
Sprayer 1000gal	100' 300hp	310,000	350	8	15.44	0.010	0.19	0.29	0.17	0.66	1.15	1.81
Sprayer 1200+gal	120' 300hp	334,000	350	8	15.44	0.008	0.15	0.24	0.15	0.56	1.03	1.59
xxCotton Picker/Modu	6R-38 (365)	536,000	200	8	20.58	0.172	3.88	6.38	14.43	24.70	56.94	81.64

Notes:

Labor: includes allocated labor plus any additional labor from self-propelled machine.

Direct: Does not include interest on operating capital.

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

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost	
									Imp.	P.U.		Imp.	P.U.		
				dollars	hours	years	hr/ac	-----\$/acre-----							
Bed-Paratill	Fold	8R-38	MFWD 225	54,400	150	12	0.080	1.09	1.68	1.58	0.52	4.89	2.75	3.33	10.98
Bed-Paratill	Fold	8R-38 2x1	MFWD 225	69,100	150	12	0.053	0.72	1.12	1.34	0.35	3.54	2.32	2.22	8.09
Bed-Paratill	Fold	12R-38	MFWD 225	69,100	150	12	0.053	0.72	1.12	1.34	0.35	3.54	2.32	2.22	8.09
Bed-Paratill	Rigid	4R-30	MFWD 225	12,300	150	12	0.204	2.76	4.25	0.90	1.34	9.26	1.57	8.44	19.28
Bed-Paratill	Rigid	4R-38	MFWD 225	12,300	150	12	0.160	2.17	3.35	0.71	1.05	7.29	1.23	6.64	15.18
Bed-Paratill	Rigid	6R-30	MFWD 225	17,300	150	12	0.136	1.84	2.83	0.85	0.89	6.42	1.47	5.62	13.53
Bed-Paratill	Rigid	6R-38	MFWD 225	17,200	150	12	0.107	1.45	2.24	0.66	0.70	5.06	1.15	4.44	10.67
Bed-Paratill	Rigid	8R-30	MFWD 225	22,600	150	12	0.102	1.38	2.12	0.83	0.67	5.01	1.44	4.22	10.68
Bed-Paratill	Rigid	8R-38	MFWD 225	22,600	150	12	0.080	1.09	1.68	0.65	0.52	3.96	1.14	3.33	8.44
Bed-Paratill	w/rol	4R-30	MFWD 225	17,900	150	12	0.204	2.76	4.25	1.32	1.34	9.68	2.29	8.44	20.41
Bed-Paratill	w/rol	4R-38	MFWD 225	17,900	150	12	0.160	2.17	3.35	1.03	1.05	7.62	1.80	6.64	16.07
Bed-Paratill	w/rol	6R-38	MFWD 225	25,200	150	12	0.107	1.45	2.24	0.97	0.70	5.37	1.69	4.44	11.52
Bed-Rip/Disk	Fold.	8R-38	MFWD 190	36,900	300	20	0.073	0.98	1.28	0.13	0.39	2.80	0.63	2.48	5.93
Bed-Rip/Disk	Fold.	12R-30	MFWD 225	56,600	300	20	0.061	0.83	1.28	0.17	0.40	2.69	0.82	2.54	6.06
Bed-Rip/Disk	Fold.	12R-38	MFWD 225	56,600	300	20	0.046	0.62	0.96	0.13	0.30	2.02	0.62	1.91	4.55
Bed-Rip/Disk	Rigid	4R-30	MFWD 190	17,300	300	20	0.184	2.49	3.25	0.15	0.99	6.91	0.75	6.29	13.96
Bed-Rip/Disk	Rigid	4R-38	MFWD 190	17,300	300	20	0.146	1.98	2.58	0.12	0.79	5.48	0.60	4.99	11.08
Bed-Rip/Disk	Rigid	6R-38	MFWD 190	23,900	300	20	0.097	1.31	1.71	0.11	0.52	3.66	0.55	3.31	7.53
Bed-Rip/Disk	Rigid	8R-30	MFWD 190	31,300	300	20	0.139	1.87	2.44	0.21	0.75	5.29	1.03	4.73	11.05
Bed-Rip/Disk	Rigid	8R-38	MFWD 190	31,300	300	20	0.073	0.98	1.28	0.11	0.39	2.78	0.54	2.48	5.81
Bed-Rip/Disk	Rigid	6R-30	MFWD 190	23,900	300	20	0.123	1.66	2.16	0.14	0.66	4.64	0.69	4.19	9.54
Bed-Rip/Disk/Cond.		6-Row	MFWD 225	24,600	150	12	0.107	1.45	2.24	0.95	0.70	5.35	1.65	4.44	11.45
Bed-Rip/Disk/Cond.		8-Row	MFWD 225	32,700	150	12	0.080	1.09	1.68	0.95	0.52	4.25	1.65	3.33	9.25
Bed/Disk (Hipper)		4R-38	MFWD 150	9,200	160	10	0.147	1.99	2.05	0.33	0.60	4.99	0.89	3.63	9.52
Bed/Disk (Hipper)		6R-30	MFWD 170	15,100	160	10	0.125	1.68	1.96	0.47	0.59	4.72	1.24	3.76	9.73
Bed/Disk (Hipper)		6R-38	MFWD 170	13,000	160	10	0.098	1.33	1.55	0.32	0.47	3.67	0.84	2.97	7.49
Bed/Disk (Hipper)		8R-30	MFWD 190	14,400	160	10	0.093	1.26	1.65	0.33	0.50	3.76	0.89	3.19	7.84
Bed/Disk (Hipper)		8R-38 2x1	MFWD 190	29,200	160	10	0.049	0.66	0.86	0.36	0.26	2.16	0.95	1.67	4.79
Bed/Disk (Hipper)		12R-30	MFWD 225	28,400	160	10	0.062	0.84	1.30	0.44	0.41	3.00	1.17	2.58	6.75
Bed/Disk (Hipper)		12R-38	MFWD 225	29,200	160	10	0.049	0.66	1.02	0.36	0.32	2.37	0.95	2.03	5.36
Bed/Disk (Hipper)		16R40	MFWD 300	47,000	160	10	0.035	0.47	0.98	0.41	0.30	2.17	1.09	1.89	5.16
Bed/Disk (Hipper)Fl		8R-38	MFWD 190	20,000	160	10	0.074	1.00	1.30	0.37	0.40	3.07	0.97	2.52	6.57
Bed/Disk (Hipper)Rd		8R-38	MFWD 190	15,600	160	10	0.074	1.00	1.30	0.28	0.40	2.99	0.76	2.52	6.28
Bed/Disk w/roller		8R-30/40	MFWD 190	26,600	160	10	0.093	1.26	1.65	0.62	0.50	4.04	1.64	3.19	8.88
Bed/Disk w/roller		12R-30/40	MFWD 225	44,300	160	10	0.062	0.84	1.30	0.69	0.41	3.24	1.82	2.58	7.66
Bed/Disk w/roller		8R-38	MFWD 190	26,600	160	10	0.074	1.00	1.30	0.49	0.40	3.19	1.30	2.52	7.02
Bed/Lister		4R-38	MFWD 150	18,200	160	8	0.228	3.08	3.17	0.97	0.93	8.16	3.06	5.62	16.86
Bed/Lister		6R-38	MFWD 150	19,100	160	8	0.120	1.62	1.67	0.53	0.49	4.32	1.69	2.96	8.97
Bed/Lister		8R-30	MFWD 190	23,100	160	8	0.114	1.54	2.01	0.61	0.61	4.78	1.94	3.88	10.62
Bed/Lister		8R-38	MFWD 190	23,400	160	8	0.090	1.21	1.58	0.49	0.48	3.79	1.55	3.07	8.42
Bed/Lister		8R-38 2x1	MFWD 190	46,700	160	8	0.060	0.81	1.05	0.65	0.32	2.85	2.07	2.04	6.96
Bed/Lister		12R-38	MFWD 225	46,700	160	8	0.060	0.81	1.25	0.65	0.39	3.11	2.07	2.48	7.67
Bed/Lister		16R-30	MFWD 225	58,100	160	8	0.035	0.47	0.73	0.47	0.23	1.91	1.50	1.45	4.87
Bed/Lister		16R40	MFWD 300	60,900	160	8	0.043	0.58	1.19	0.61	0.36	2.76	1.93	2.30	7.00
Bed/Lister-Roll-Fold		8R-38	MFWD 190	24,300	160	10	0.074	1.00	1.30	0.45	0.40	3.15	1.18	2.52	6.86
Bed/Lister-Roll-Fold		12R-30	MFWD 225	29,200	160	10	0.062	0.84	1.30	0.45	0.41	3.01	1.20	2.58	6.80
Bed/Lister-Roll-Fold		12R-38	MFWD 225	33,700	160	10	0.049	0.66	1.02	0.41	0.32	2.43	1.09	2.03	5.57
Bed/Lister-Roll-Fold		16R-30	MFWD 225	34,800	160	10	0.046	0.63	0.97	0.40	0.30	2.32	1.07	1.93	5.34
Bed/Lister-Roll-Rig.		8R-38	MFWD 190	20,300	160	10	0.074	1.00	1.30	0.37	0.40	3.08	0.99	2.52	6.59
Blade-Box		6'-7'	MFWD 105	1,180	200	20	0.020	0.27	0.19	0.01	0.04	0.51	0.00	0.25	0.78
Blade-Box		8'-10'	MFWD 105	3,700	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper		6'-7'	MFWD 105	1,190	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper		8'-10'	MFWD 105	3,550	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boll Buggy		4R-38 (250)	MFWD 190	30,500	200	10	0.257	3.48	4.53	1.96	1.39	11.37	3.99	8.77	24.15
Boll Buggy		4R-38 (350)	MFWD 190	30,500	200	10	0.257	3.48	4.53	1.96	1.39	11.37	3.99	8.77	24.15
Boll Buggy		4R2x1 (350)	MFWD 190	30,500	200	10	0.172	2.32	3.03	1.31	0.93	7.60	2.67	5.86	16.14
Boll Buggy		6R-30 (355)	MFWD 190	30,500	200	10	0.218	2.94	3.84	1.66	1.17	9.63	3.38	7.42	20.44
Boll Buggy		6R-38 (355)	MFWD 190	30,500	200	10	0.172	2.32	3.03	1.31	0.93	7.60	2.67	5.86	16.14
Chisel Plow-Folding		24'	MFWD 190	39,300	150	12	0.076	1.03	1.34	1.08	0.41	3.87	1.88	2.60	8.36
Chisel Plow-Folding		32'	MFWD 225	51,000	150	12	0.057	0.78	1.20	1.06	0.37	3.42	1.84	2.38	7.66
Chisel Plow-Folding		42'	MFWD 225	61,600	150	12	0.044	0.59	0.91	0.97	0.28	2.78	1.69	1.81	6.29
Chisel Plow-Folding		50'	MFWD 225	80,300	150	10	0.036	0.49	0.77	1.28	0.24	2.79	2.09	1.52	6.41
Chisel Plow-Folding		61'	MFWD 225	90,200	150	12	0.030	0.40	0.63	0.98	0.19	2.22	1.71	1.25	5.19
Chisel Plow-Rigid		10'	MFWD 170	6,600	150	12	0.184	2.49	2.91	0.44	0.88	6.73	0.76	5.56	13.06
Chisel Plow-Rigid		15'	2WD 130	11,600	150	12	0.123	1.66	1.48	0.51	0.39	4.06	0.89	2.38	7.34
Chisel Plow-Rigid		20'	MFWD 225	11,200	150	12	0.102	1.38	2.14	0.41	0.67	4.61	0.72	4.24	9.58
Chisel Plow-Rigid		24'	MFWD 190	11,700	150	12	0.077	1.04	1.35	0.32	0.41	3.13	0.56	2.62	6.32
Cultivate		4R-30	2WD 105	12,100	150	10	0.206	2.78	2.00	0.66	0.42	5.88	1.75	2.57	10.21
Cultivate		4R-38	2WD 105	12,200	150	10	0.162	2.19	1.57	0.52	0.30	4.60	1.39	1.84	7.84
Cultivate		6R-30	MFWD 150	16,300	150	10	0.137	1.85	1.91	0.59	0.56	4.92	1.57	3.38	9.89
Cultivate		6R-38	MFWD 150	17,200	150	10	0.108	1.46	1.50	0.49	0.44	3.91	1.31	2.67	7.90
Cultivate		8R-30	MFWD 190	20,600	150	10	0.103	1.39	1.81	0.56	0.55	4.33	1.49	3.51	9.34
Cultivate		8R-38	MFWD 190	21,600	150	10	0.073	0.99	1.29	0.42	0.39	3.11	1.12	2.50	6.74
Cultivate		8R-38 2x1	MFWD 190	37,500	150	10	0.054	0.73	0.95	0.54	0.29	2.52	1.43	1.84	5.80

(continued)

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

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Cultivate	12R-30	MFWD 225	36,200	150	10	0.068	0.92	1.43	0.66	0.45	3.47	1.75	2.84	8.07
Cultivate	12R-38	MFWD 225	37,500	150	10	0.054	0.73	1.13	0.54	0.35	2.76	1.43	2.24	6.44
Cultivate	16R-30	MFWD 225	47,800	150	10	0.051	0.69	1.07	0.65	0.33	2.76	1.73	2.13	6.63
Cultivate & Post	4R-30	2WD 105	17,500	150	10	0.220	3.96	2.14	1.02	0.41	7.55	2.71	2.49	12.75
Cultivate & Post	4R-38	2WD 105	17,600	150	10	0.173	3.12	1.68	0.81	0.32	5.94	2.14	1.96	10.06
Cultivate & Post	6R-30	MFWD 150	21,700	150	10	0.146	2.64	2.03	0.84	0.60	6.13	2.24	3.61	11.98
Cultivate & Post	6R-38	MFWD 150	22,600	150	10	0.115	2.08	1.60	0.69	0.47	4.86	1.84	2.85	9.56
Cultivate & Post	8R-30	MFWD 190	26,000	150	10	0.110	1.98	1.93	0.76	0.59	5.27	2.01	3.74	11.03
Cultivate & Post	8R-38	MFWD 190	27,000	150	10	0.086	1.56	1.53	0.62	0.47	4.19	1.65	2.96	8.80
Cultivate & Post	8R-38 2x1	MFWD 190	44,500	150	10	0.057	1.04	1.01	0.68	0.31	3.06	1.81	1.97	6.84
Cultivate & Post	10R-30	MFWD 225	32,000	150	10	0.088	1.58	1.83	0.75	0.57	4.75	1.98	3.63	10.37
Cultivate & Post	12R-30	MFWD 225	41,500	150	10	0.073	1.32	1.52	0.81	0.48	4.14	2.14	3.03	9.31
Cultivate & Post	12R-38	MFWD 225	44,500	150	10	0.057	1.04	1.20	0.68	0.37	3.31	1.81	2.39	7.52
Cultivate & Post	16R-30	MFWD 225	54,900	150	10	0.055	0.99	1.14	0.80	0.36	3.30	2.12	2.27	7.70
Disk & Incorporate	14'	2WD 130	30,100	200	10	0.149	2.69	1.80	1.35	0.48	6.33	2.37	2.89	11.61
Disk & Incorporate	20'	MFWD 190	44,500	180	10	0.092	1.24	1.62	1.37	0.49	4.74	2.41	3.14	10.30
Disk & Incorporate	24'	MFWD 190	46,900	200	10	0.087	1.57	1.53	1.22	0.47	4.81	2.16	2.97	9.94
Disk & Incorporate	28'	MFWD 225	55,500	200	10	0.074	1.34	1.55	1.24	0.49	4.64	2.19	3.09	9.93
Disk & Incorporate	32'	MFWD 225	61,000	200	10	0.065	1.18	1.36	1.19	0.42	4.17	2.11	2.70	8.99
Disk Harrow	14'	2WD 130	24,800	180	10	0.140	1.89	1.68	0.96	0.45	5.00	2.04	2.71	9.76
Disk Harrow	20'	MFWD 190	39,200	180	10	0.098	1.32	1.72	1.06	0.53	4.65	2.25	3.34	10.25
Disk Harrow	24'	MFWD 190	41,500	180	10	0.081	1.10	1.44	0.94	0.44	3.93	1.99	2.78	8.71
Disk Harrow	28'	MFWD 225	50,100	180	10	0.070	0.94	1.46	0.97	0.46	3.84	2.06	2.89	8.80
Disk Harrow	32'	MFWD 225	55,700	180	10	0.061	0.82	1.27	0.94	0.40	3.46	2.00	2.53	8.00
Disk Harrow	42'	MFWD 225	96,300	180	10	0.046	0.63	0.97	1.25	0.30	3.16	2.64	1.93	7.74
Disk Harrow 40-100hp	14'	2WD 75	14,900	180	10	0.140	1.89	0.97	0.58	0.14	3.59	1.22	0.87	5.69
Disk Heavy	14'	MFWD 150	24,800	180	10	0.145	1.97	2.02	1.00	0.59	5.60	2.12	3.59	11.32
Disk Heavy	20'	MFWD 170	39,200	180	10	0.097	1.31	1.53	1.05	0.46	4.37	2.23	2.92	9.54
Disk Heavy	28'	MFWD 190	50,100	180	10	0.075	1.02	1.33	1.05	0.40	3.81	2.22	2.57	8.61
Disk Ripper	15'	MFWD 225	45,200	180	10	0.136	1.84	2.83	1.71	0.89	7.28	3.61	5.62	16.52
Ditcher		2WD 130	5,700	200	10	0.020	0.27	0.24	0.04	0.06	0.62	0.06	0.38	1.06
Ditcher (1m/160a)		2WD 130	5,700	200	10	0.009	0.12	0.11	0.02	0.03	0.29	0.02	0.18	0.50
Fert Appl (Liquid)	4R-38	MFWD 150	12,900	150	8	0.154	2.79	2.14	1.33	0.63	6.90	1.50	3.81	12.21
Fert Appl (Liquid)	6R-30	MFWD 170	16,300	150	8	0.130	2.36	2.06	1.42	0.62	6.47	1.60	3.94	12.02
Fert Appl (Liquid)	6R-38	MFWD 170	15,600	150	8	0.103	1.86	1.62	1.07	0.49	5.06	1.21	3.11	9.38
Fert Appl (Liquid)	8R-30	MFWD 190	16,300	150	8	0.098	1.77	1.72	1.06	0.53	5.09	1.20	3.34	9.64
Fert Appl (Liquid)	8R-38	MFWD 190	18,400	150	8	0.077	1.40	1.36	0.95	0.41	4.13	1.07	2.64	7.85
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	19,700	150	8	0.051	0.93	0.90	0.67	0.27	2.80	0.76	1.75	5.32
Fert Appl (Liquid)	12R-30	MFWD 225	20,000	150	8	0.078	1.41	1.63	1.04	0.51	4.61	1.18	3.24	9.04
Fert Appl (Liquid)	12R-38	MFWD 225	19,000	150	8	0.051	0.93	1.07	0.65	0.33	3.00	0.73	2.13	5.87
Field Cult & Inc	42'	MFWD 225	59,700	100	10	0.037	0.68	0.78	0.56	0.24	2.28	2.38	1.56	6.22
Field Cult & Inc	50'	MFWD 225	72,000	100	10	0.031	0.57	0.66	0.57	0.20	2.01	2.41	1.31	5.73
Field Cult & Inc Fld	24'	MFWD 170	34,500	100	10	0.066	1.19	1.04	0.57	0.31	3.12	2.40	1.99	7.52
Field Cult & Inc Fld	32'	MFWD 190	43,800	100	10	0.049	0.89	0.87	0.54	0.26	2.57	2.29	1.68	6.56
Field Cult & Inc Rdg	12'	2WD 150	15,800	100	10	0.132	2.38	1.83	0.52	0.44	5.19	2.20	2.68	10.08
Field Cultivate Fld	24'	MFWD 170	29,100	100	10	0.062	0.84	0.98	0.45	0.29	2.57	1.91	1.87	6.35
Field Cultivate Fld	32'	MFWD 190	38,500	100	10	0.046	0.63	0.82	0.44	0.25	2.15	1.89	1.58	5.63
Field Cultivate Fld	42'	MFWD 225	52,600	100	10	0.035	0.48	0.74	0.46	0.23	1.92	1.97	1.46	5.36
Field Cultivate Fld	50'	MFWD 225	62,100	100	10	0.029	0.40	0.62	0.46	0.19	1.68	1.95	1.23	4.87
Field Cultivate Rdg	12'	2WD 150	10,400	100	10	0.124	1.68	1.72	0.32	0.41	4.15	1.36	2.52	8.04
Grain Cart Corn	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.08	0.28	0.86	2.23
Grain Cart Corn	700 bu	MFWD 190	36,700	200	12	0.025	0.34	0.44	0.25	0.13	1.17	0.43	0.86	2.47
Grain Cart Corn	1000 bu	MFWD 225	45,700	200	12	0.025	0.34	0.52	0.31	0.16	1.34	0.54	1.04	2.93
Grain Cart Rice	500 bu	MFWD 190	24,000	200	12	0.062	0.84	1.10	0.40	0.33	2.68	0.70	2.12	5.52
Grain Cart Rice	700 bu	MFWD 190	36,700	200	12	0.055	0.74	0.96	0.54	0.29	2.55	0.94	1.87	5.37
Grain Cart Rice	1000 bu	MFWD 190	45,700	200	12	0.045	0.61	0.80	0.56	0.24	2.24	0.98	1.56	4.78
Grain Cart Soybean	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.09	0.28	0.86	2.25
Grain Cart Soybean	700 bu	MFWD 190	36,700	200	12	0.021	0.28	0.37	0.21	0.11	0.98	0.36	0.72	2.07
Grain Cart Soybean	1000 bu	MFWD 190	45,700	200	12	0.021	0.28	0.37	0.26	0.11	1.03	0.45	0.72	2.21
Grain Cart Wht/Sor	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.09	0.28	0.86	2.25
Grain Cart Wht/Sor	700 bu	MFWD 190	36,700	200	12	0.021	0.28	0.37	0.21	0.11	0.98	0.36	0.72	2.07
Grain Cart Wht/Sor	1000 bu	MFWD 190	45,700	200	12	0.021	0.28	0.37	0.26	0.11	1.03	0.45	0.72	2.21
Grain Drill	10'	2WD 130	26,700	150	8	0.188	4.25	2.27	1.88	0.60	9.02	3.61	3.65	16.28
Grain Drill	12'	2WD 130	25,200	150	8	0.157	3.54	1.89	1.48	0.50	7.43	2.84	3.04	13.31
Grain Drill	15'	MFWD 150	31,800	150	8	0.125	2.83	1.74	1.49	0.51	6.59	2.86	3.09	12.56
Grain Drill	20'	MFWD 170	37,300	150	8	0.094	2.12	1.48	1.31	0.45	5.38	2.52	2.83	10.74
Grain Drill	24'	MFWD 190	63,000	150	8	0.078	1.77	1.38	1.85	0.42	5.43	3.55	2.67	11.66
Grain Drill	30'	MFWD 225	59,500	150	8	0.062	1.41	1.31	1.40	0.41	4.54	2.68	2.59	9.82
Grain Drill	35'	MFWD 225	90,600	150	8	0.053	1.21	1.12	1.83	0.35	4.52	3.50	2.22	10.25
Grain Drill & Pre	10'	2WD 130	32,000	150	8	0.203	4.58	2.44	2.43	0.65	10.12	4.66	3.93	18.71
Grain Drill & Pre	12'	2WD 130	30,600	150	8	0.169	3.81	2.03	1.94	0.54	8.34	3.71	3.27	15.33
Grain Drill & Pre	15'	MFWD 150	37,200	150	8	0.135	3.05	1.88	1.88	0.55	7.37	3.61	3.33	14.32
Grain Drill & Pre	20'	MFWD 170	42,700	150	8	0.101	2.29	1.59	1.62	0.48	6.00	3.11	3.05	12.16

(continued)

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

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

(continued)







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

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

Notes:

Labor: Includes labor from Power unit plus additional labor from the implement.  
 Total Direct: Does not include interest on operating capital.  
 HB = Hooded Boom, HD = Hooded Direct

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

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

(continued)

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

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

(continued)

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

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

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

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

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

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	13.51
IRRIGATE LABOR	hour	9.06
HAND LABOR	hour	9.06
HAND. & STOR. LABOR	hour	9.06
RICE MGT. LABOR	hour	9.06
CROP ENTERPRISE	UNALLOCATED LABOR MULTIPLIERS (%)	
Corn		90
Cotton		80
Grain Sorghum		90
Peanuts		80
Rice		90
Soybeans		90
Wheat		80

Appendix Table 7. Futures contract prices, basis levels, forward contract prices, and loan rates used in row crop budgets, Mississippi, 2018

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

<sup>a</sup> Average of the daily closing futures contract prices during the first 5 trading days in October 2017 for the stated contract months.

<sup>b</sup> Basis is the cash price minus the futures contract price for the stated contract month. The reported basis is a daily average from 2009 to 2017 for corn, soybeans and wheat at Greenville, MS. Rice basis is a weekly average price for river point delivery. June harvest delivery for wheat. September harvest delivery for corn, rice and soybeans. October harvest delivery for cotton.

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

<sup>d</sup> Average Mississippi County CCC Loan Rate for 2017 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2017 Farm-stored Loan Rate for long grain rough rice. National 2018 Upland Cotton Marketing Assistance Loan Base Rate for cotton lint.

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

<sup>f</sup> Cottonseed price is the average marketing year price over the years 2007-2016.



Appendix Table 8. Estimated costs for field operations, per acre  
 Full-season soybeans irrigated with roll-out pipe  
 160-acre system, 9 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Land Plane	50'x16'		0.67	0.31	0.51			0.07	1.56	1.58	3.14
Set Up Engine											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Ditcher (1m/160a)			0.15	0.06	0.13			0.01	0.35	0.31	0.66
Roll-Out Pipe	ft	8.25						0.13	8.38		8.38
Lay Roll-out Pipe											
Pipe Spool 160ac	1/4m roll		0.20	0.09	0.40			0.01	0.70	0.66	1.36
IRRIGATE LABOR	hour				1.81			0.03	1.84		1.84
Apply Water											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Apply Water											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Apply Water											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Pick Up Pipe											
Pipe Spool 160ac	1/4m roll		0.30	0.13	0.59				1.02	0.98	2.00
Land Forming (\$450)	each									31.93	31.93
Well & Pump, Furrow	each			2.96				0.05	3.01	8.74	11.75
Main Line Pipe	each									4.32	4.32
Engine, RPF, ESB	each									8.43	8.43
1st June Irrigation	ac-in		4.40	1.31				0.09	5.80		5.80
2nd June Irrigation	ac-in		4.40	1.31				0.09	5.80		5.80
July Irrigation	ac-in		4.40	1.31				0.07	5.78		5.78
TOTALS		8.25	14.52	7.48	4.36	0.00	0.55		35.16	56.95	92.11

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

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Set Up Engine										
IRRIGATE LABOR	hour				0.45			0.01	0.46	0.46
Build Outside Levee										
Levee Pull (1m/80a)	8 blade		0.25	0.10	0.22			0.01	0.58	1.18
Survey & Mark Levees	acre	2.25						0.04	2.29	2.29
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.34	0.13	0.29			0.02	0.78	1.59
Butt Levees										
Blade-Box	6'-7'		0.32	0.11	0.27			0.01	0.71	1.32
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	0.10	0.23			0.01	0.60	1.23
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.34	0.13	0.29			0.01	0.77	1.58
Butt Levees										
Blade-Box	6'-7'		0.32	0.11	0.27			0.01	0.71	1.32
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	0.10	0.23			0.01	0.60	1.23
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.34	0.13	0.29			0.01	0.77	1.58
Butt Levees										
Blade-Box	6'-7'		0.32	0.11	0.27			0.01	0.71	1.32
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	0.10	0.23			0.01	0.60	1.23
Tear Down Levees										
Levee Splitter (1/80	32"		0.20	0.08	0.17				0.45	0.92
Land Forming (\$113)	each								8.02	8.02
Well & Pump, Flood	each			5.91				0.12	6.03	23.50
Engine, CF, 75	each								16.85	16.85
June Irrigation	ac-in		6.60	2.63				0.18	9.41	9.41
July Irrigation	ac-in		6.60	2.63				0.15	9.38	9.38
August Irrigation	ac-in		6.60	2.63				0.11	9.34	9.34
TOTALS		2.25	23.01	15.00	5.58	0.00	0.75	46.59	49.56	96.15

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

Appendix Table 10. 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, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Set Up Engine										
IRRIGATE LABOR	hour				0.07				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			8.60			0.17		8.77	34.52
Well & Pump, 1/2 CP	each			1.13			0.02		1.15	3.35
Engine, 1/2 CP, 174	each									3.94
June Irr. 3app@.75"	ac-in		8.86	0.55			0.19		9.60	9.60
July Irr. 4app@.75"	ac-in		11.81	0.74			0.20		12.75	12.75
Aug Irr. 3app@.75"	ac-in		8.86	0.55			0.11		9.52	9.52
TOTALS		0.00	29.53	11.57	0.47	0.00	0.70		42.27	41.81

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



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