

**SOYBEANS  
2019  
PLANNING BUDGETS**

**Mississippi State University  
Department of Agricultural Economics  
Budget Report 2018-02**

**October 2018**



## 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 2019 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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## Table of Contents

	Page
Foreword.....	i
Acknowledgments.....	i
2019 Budget Committees.....	ii
2019 Planning Budgets .....	1
Budgets for Agricultural Enterprises.....	1
Methods and Procedures .....	1
Production Practices .....	1
Machinery.....	1
Estimates of Direct Costs.....	2
Estimates of Fixed Costs.....	2
Estimates of Returns .....	3
Irrigation Costs .....	3
Net Returns .....	3
 Enterprise Budgets	
Table	
1 Soybeans, full-season, RR2, stale seedbed, 12R 30” Non-irrigated, Delta Area .....	6
2 Soybeans, full-season, RR2, stale seedbed, 12R 30” Furrow irrigated, 9 ac-in., Delta Area.....	12
3 Soybeans, full-season, RR2, stale seedbed, 12R 30” Flood irrigated, 13.5 ac-in., Delta Area .....	18
4 Soybeans, double crop after wheat, RR2, 12R 30” Pivot irrigated, 7.5 ac-in., All Areas .....	24
5 Soybeans full-season, RR2, April planted, 12R 30” Non-Delta Area .....	30
6 Soybeans, full-season, RR2, May planted, 12R 30” Non-Delta Area.....	36
7 Soybeans, double crop after wheat, RR2, 12R 30” Non-irrigated, All Areas.....	42
8 Soybeans full season, RR2X, stale seedbed, 12R 30” Non-irrigated, Delta Area .....	48
9 Soybeans, full-season, RR2X, stale seedbed, 12R 30” Furrow irrigated, 9 ac-in., Delta Area.....	54
10 Soybeans, full-season, RR2X, stale seedbed, 12R 30” Flood irrigated, 13.5 ac-in., Delta Area .....	60
11 Soybeans, double crop after wheat, RR2X, 12R 30” Pivot irrigated, 7.5 ac-in., All Areas .....	66
12 Soybeans, full-season, RR2X, April planted, 12R 30” Non-Delta Area.....	72
13 Soybeans, full-season, RR2X, May planted, 12R 30” Non-Delta Area .....	78
14 Soybeans, double crop after wheat, RR2X, 12R 30” Non-irrigated, All Areas .....	84

15	Soybeans, full-season, LL, stale seedbed, 12R 30” Non-irrigated, Delta Area .....	90
16	Soybeans, full-season, LL, stale seedbed, 12R 30” Furrow irrigated, 9 ac-in., Delta Area .....	96
17	Soybeans, full-season, LL, stale seedbed, 12R 30” Flood irrigated, 13.5 ac-in., Delta Area .....	102
18	Soybeans, double crop after wheat, LL, 12R 30” Pivot irrigated, 7.5 ac-in., All Areas .....	108
19	Soybeans, full-season, LL, April planted, 12R 30” Non- Delta Area .....	114
20	Soybeans, full-season, LL, May planted, 12R 30” Non-Delta Area .....	120
21	Soybeans, double crop after wheat, LL, 12R 30” Non-irrigated, All Areas .....	126

#### Appendix Table

1	Tractors/Harvesters: estimated purchase price, annual use, useful life, fuel use, and direct and fixed costs per hour .....	134
2	Self-propelled machines: estimated purchase price, annual use, useful life, fuel use, performance rate, and direct and fixed costs per acre .....	135
3	Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed costs per acre .....	136
4	Operating inputs: estimated prices .....	141
5	Estimated fuel prices and interest rates .....	144
6	Labor types, wage rates and unallocated labor multipliers for crop enterprises .....	144
7	Futures contract prices, basis levels, forward contract prices, and loan rates used in row crop budgets .....	145
8	Full-season soybeans irrigated with roll-out pipe 160-acre system, 9 ac-in., Delta Area .....	146
9	Irrigation with a contour flood system 80-acre system, 13.5 ac-in., Delta Area .....	147
11	Irrigation with a ½-mile center pivot system 530-acre system, 7.5 ac-in., Delta Area .....	148
	Literature Cited .....	149

# 2019 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 2018. (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 2018 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, RR2, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.34	50.0000	67.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.0000	3.59	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.3302	4.69	_____
Harvesters	hour	14.23	0.0851	1.21	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR					
	hour	14.22	0.3738	5.32	_____
DIESEL FUEL					
Tractors	gal	2.60	3.8252	9.94	_____
Harvesters	gal	2.60	1.4243	3.70	_____
REPAIR & MAINTENANCE					
Implements	acre	4.94	1.0000	4.94	_____
Tractors	acre	1.97	1.0000	1.97	_____
Harvesters	acre	3.21	1.0000	3.21	_____
INTEREST ON OP. CAP.	acre	11.69	1.0000	11.69	_____
TOTAL DIRECT EXPENSES				357.05	_____
FIXED EXPENSES					
Implements	acre	11.12	1.0000	11.12	_____
Tractors	acre	13.61	1.0000	13.61	_____
Harvesters	acre	13.81	1.0000	13.81	_____
TOTAL FIXED EXPENSES				38.54	_____
TOTAL SPECIFIED EXPENSES				395.59	_____

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	42.0000	390.60	_____
				-----	
TOTAL INCOME				390.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	96.35	1.0000	96.35	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
ADJUVANTS	acre	3.60	1.0000	3.60	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
OPERATOR LABOR	hour	14.23	0.4154	5.90	_____
UNALLOCATED LABOR	hour	14.22	0.3738	5.32	_____
DIESEL FUEL	gal	2.60	5.2496	13.64	_____
REPAIR & MAINTENANCE	acre	10.12	1.0000	10.12	_____
INTEREST ON OP. CAP.	acre	11.69	1.0000	11.69	_____
				-----	
TOTAL DIRECT EXPENSES				357.05	_____
RETURNS ABOVE DIRECT EXPENSES				33.55	_____
TOTAL FIXED EXPENSES				38.54	_____
				-----	
TOTAL SPECIFIED EXPENSES				395.59	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-4.99	_____

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Non-irrigated, Delta Area, Mississippi, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
Incidental Pest				1.00	Aug					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
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							0.41	0.41	0.51	0.37

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2019

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						0.20	3.53		3.53
Subsoiler	3 shank		1.23	0.32	1.10			0.16	2.81	1.90	4.71
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Disk Harrow	24'		2.46	1.46	2.21			0.37	6.50	5.64	12.14
Field Cultivate Fld	24'		1.87	0.81	1.69			0.26	4.63	4.65	9.28
App by Air ( 5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Select Max	pt	12.71						0.51	13.22		13.22
Valor SX	oz	9.14						0.37	9.51		9.51
Surfactant	pt	1.44						0.06	1.50		1.50
Plant & Pre-Folding	12R-30		2.04	2.35	2.44			0.20	7.03	6.93	13.96
Soybean Seed RR2	lb	67.00						2.01	69.01		69.01
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Soybeans Consultant	acre	6.50						0.16	6.66		6.66
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Prefix	pt	13.06						0.33	13.39		13.39
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Zidua	oz	13.58						0.34	13.92		13.92
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Acephate 90SP	lb	5.94						0.06	6.00		6.00
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	11.34						0.06	11.40		11.40
Grain Cart Soybean	700 bu		0.64	0.34	0.57			0.01	1.56	1.30	2.86
TOTALS		309.51	13.64	10.12	12.09	0.00	11.69	357.05	38.54	395.59	

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2019

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	390.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	19.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.13	0.00	29.62	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	13.94	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.44	0.00	1.44	0.00	0.00	0.00	0.72	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	12.65	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	1.55	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	5.00	0.00	0.00	0.00	0.00	0.00	2.44	1.78	0.00	0.00	0.00	2.87
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	5.56	0.00	0.00	0.00	0.00	0.00	2.04	1.70	0.00	0.00	0.00	4.34
REPAIR & MAINTENANCE	2.59	0.00	0.00	0.00	0.00	0.00	2.35	0.76	0.00	0.00	0.00	4.42
INTEREST ON OP. CAP.	5.04	0.00	0.00	0.00	1.57	0.00	3.40	1.15	0.00	0.00	0.41	0.12
TOTAL DIRECT EXPENSES	88.93	0.00	0.00	0.00	40.64	0.00	116.69	47.49	0.00	0.00	40.21	23.09
NET INCOME	-88.93	0.00	0.00	0.00	-40.64	0.00	-116.69	-47.49	0.00	0.00	-40.21	367.51
NET INCOME TO DATE	-88.93	-88.93	-88.93	-88.93	-129.57	-129.57	-246.26	-293.75	-293.75	-293.75	-333.96	33.55

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Non-irrigated, Delta Area, Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-204 -243	-195 -233	-185 -223	-175 -214	-165 -204	-156 -194	-146 -184	-136 -175	-126 -165	-116 -155	-107 -145
60	25.20	bu	-176 -215	-165 -203	-153 -191	-141 -180	-129 -168	-118 -156	-106 -144	-94 -133	-82 -121	-71 -109	-59 -98
70	29.40	bu	-148 -187	-134 -173	-121 -159	-107 -146	-93 -132	-80 -118	-66 -105	-52 -91	-39 -77	-25 -64	-11 -50
80	33.60	bu	-120 -158	-104 -143	-89 -127	-73 -112	-57 -96	-42 -80	-26 -65	-11 -49	4 -33	20 -18	35 -2
90	37.80	bu	-92 -130	-74 -113	-57 -95	-39 -78	-21 -60	-4 -42	13 -25	30 -7	48 9	65 27	83 44
100	42.00	bu	-64 -102	-44 -83	-25 -63	-5 -44	14 -24	33 -4	53 14	72 34	92 53	111 73	131 92
110	46.20	bu	-35 -74	-14 -53	7 -31	28 -10	49 11	71 32	92 54	114 75	135 97	157 118	178 140
120	50.40	bu	-7 -46	15 -22	39 0	62 23	85 47	109 70	132 94	156 117	179 141	203 164	226 188
130	54.60	bu	20 -18	45 7	71 32	96 57	121 83	147 108	172 134	198 159	223 184	248 210	274 235
140	58.80	bu	48 9	75 37	103 64	130 92	157 119	185 146	212 174	239 201	267 228	294 256	321 283
150	63.00	bu	76 38	105 67	135 96	164 126	193 155	223 184	252 213	281 243	311 272	340 301	369 331

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 2018 input prices.

Table 2.A Estimated costs per acre  
Soybeans, full-season, RR2, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.34	50.0000	67.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.1000	3.95	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.4713	6.70	_____
Harvesters	hour	14.23	0.0851	1.21	_____
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	14.22	0.4301	6.12	_____
DIESEL FUEL					
Tractors	gal	2.60	5.2753	13.70	_____
Harvesters	gal	2.60	1.4243	3.70	_____
Roll-Out Pipe Irr.	gal	2.60	7.3316	19.05	_____
REPAIR & MAINTENANCE					
Implements	acre	5.60	1.0000	5.60	_____
Tractors	acre	2.74	1.0000	2.74	_____
Harvesters	acre	3.21	1.0000	3.21	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	13.20	1.0000	13.20	_____
TOTAL DIRECT EXPENSES				435.02	_____
FIXED EXPENSES					
Implements	acre	13.59	1.0000	13.59	_____
Tractors	acre	18.92	1.0000	18.92	_____
Harvesters	acre	13.81	1.0000	13.81	_____
Roll-Out Pipe Irr.	acre	61.50	1.0000	61.50	_____
TOTAL FIXED EXPENSES				107.82	_____
TOTAL SPECIFIED EXPENSES				542.84	_____

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	60.0000	558.00	_____
				-----	
TOTAL INCOME				558.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	32.50	1.0000	32.50	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	96.35	1.0000	96.35	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
ADJUVANTS	acre	3.96	1.0000	3.96	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.5564	7.91	_____
UNALLOCATED LABOR	hour	14.22	0.4301	6.12	_____
DIESEL FUEL	gal	2.60	14.0313	36.45	_____
REPAIR & MAINTENANCE	acre	18.44	1.0000	18.44	_____
INTEREST ON OP. CAP.	acre	13.20	1.0000	13.20	_____
				-----	
TOTAL DIRECT EXPENSES				435.02	_____
RETURNS ABOVE DIRECT EXPENSES				122.98	_____
				-----	
TOTAL FIXED EXPENSES				107.82	_____
				-----	
TOTAL SPECIFIED EXPENSES				542.84	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				15.16	_____

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
Incidental Pest				1.00	Aug					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
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							0.55	0.55	1.01	0.43

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

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						0.20	3.53		3.53
Subsoiler	3 shank		1.23	0.32	1.10			0.16	2.81	1.90	4.71
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Disk Harrow	24'		2.46	1.46	2.21			0.37	6.50	5.64	12.14
Field Cultivate Fld	24'		1.87	0.81	1.69			0.26	4.63	4.65	9.28
Bed/Lister-Roll-Fold	12R-30		1.88	0.83	1.69			0.26	4.66	3.91	8.57
App by Air ( 5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Select Max	pt	12.71						0.51	13.22		13.22
Valor SX	oz	9.14						0.37	9.51		9.51
Surfactant	pt	1.44						0.06	1.50		1.50
Plant & Pre-Folding	12R-30		2.04	2.35	2.44			0.20	7.03	6.93	13.96
Soybean Seed RR2	lb	67.00						2.01	69.01		69.01
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Soybeans Consultant	acre	6.50						0.16	6.66		6.66
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Prefix	pt	13.06						0.33	13.39		13.39
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Zidua	oz	13.58						0.34	13.92		13.92
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Quadris Top SBX	oz	19.25						0.29	19.54		19.54
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Acephate 90SP	lb	5.94						0.06	6.00		6.00
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	16.20						0.08	16.28		16.28
Grain Cart Soybean	700 bu		0.64	0.34	0.57			0.01	1.56	1.30	2.86
Roll-Out Pipe Irr.	acre	8.25	20.93	7.49	4.42			0.83	41.92	65.37	107.29
TOTALS		348.73	36.45	18.44	18.20	0.00	13.20	435.02	107.82	542.84	

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

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	558.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	6.50	19.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.13	0.00	29.62	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	13.94	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	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.44	0.00	1.44	0.00	0.00	0.36	0.72	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	12.65	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	1.55	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	7.23	0.00	0.00	0.00	0.00	0.00	2.44	2.01	2.81	0.23	0.00	3.48
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	8.40	0.00	0.00	0.00	0.00	0.00	2.04	1.70	13.19	6.35	0.00	4.77
REPAIR & MAINTENANCE	3.74	0.00	0.00	0.00	0.00	0.00	2.35	0.76	5.73	1.31	0.00	4.55
INTEREST ON OP. CAP.	5.41	0.00	0.00	0.00	1.57	0.00	3.40	1.16	0.59	0.51	0.41	0.15
TOTAL DIRECT EXPENSES	95.52	0.00	0.00	0.00	40.64	0.00	116.69	47.73	30.57	34.51	40.21	29.15
NET INCOME	-95.52	0.00	0.00	0.00	-40.64	0.00	-116.69	-47.73	-30.57	-34.51	-40.21	528.85
NET INCOME TO DATE	-95.52	-95.52	-95.52	-95.52	-136.16	-136.16	-252.85	-300.58	-331.15	-365.66	-405.87	122.98

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
Soybeans	6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62		
PERCENT	YIELD	UNIT	dollars										
50	30.00	bu	-217 -325	-203 -311	-189 -297	-175 -283	-161 -269	-147 -255	-133 -241	-119 -227	-106 -213	-92 -199	-78 -185
60	36.00	bu	-177 -285	-160 -268	-143 -251	-127 -235	-110 -218	-93 -201	-76 -184	-60 -168	-43 -151	-26 -134	-10 -117
70	42.00	bu	-137 -245	-117 -225	-98 -205	-78 -186	-59 -166	-39 -147	-20 -127	-0 -108	19 -88	38 -69	58 -49
80	48.00	bu	-96 -204	-74 -182	-52 -160	-30 -137	-7 -115	14 -93	36 -70	59 -48	81 -26	103 -3	126 18
90	54.00	bu	-56 -164	-31 -139	-6 -114	18 -89	43 -64	68 -39	93 -13	119 11	144 36	169 61	194 86
100	60.00	bu	-16 -124	11 -96	39 -68	67 -40	95 -12	122 15	150 43	178 70	206 98	234 126	262 154
110	66.00	bu	23 -84	54 -53	85 -22	115 7	146 38	177 69	207 100	238 130	269 161	299 192	330 222
120	72.00	bu	63 -43	97 -10	130 23	164 56	197 90	231 123	264 156	298 190	331 223	365 257	398 290
130	78.00	bu	104 -3	140 32	176 68	212 105	249 141	285 177	321 213	358 250	394 286	430 322	466 359
140	84.00	bu	144 36	183 75	222 114	261 153	300 192	339 231	378 270	417 309	456 349	495 388	534 427
150	90.00	bu	184 76	226 118	268 160	310 202	351 244	393 286	435 327	477 369	519 411	561 453	603 495

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 2018 input prices.

Table 3.A Estimated costs per acre  
Soybeans, full-season, RR2, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.34	50.0000	67.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.1000	3.95	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.4582	6.49	_____
Harvesters	hour	14.23	0.0851	1.21	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR					
	hour	14.22	0.3065	4.36	_____
DIESEL FUEL					
Tractors	gal	2.60	4.3236	11.27	_____
Harvesters	gal	2.60	1.4243	3.70	_____
Contour Flood Irr.	gal	2.60	10.9974	28.59	_____
REPAIR & MAINTENANCE					
Implements	acre	4.85	1.0000	4.85	_____
Tractors	acre	2.35	1.0000	2.35	_____
Harvesters	acre	3.21	1.0000	3.21	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	12.54	1.0000	12.54	_____
TOTAL DIRECT EXPENSES				412.15	_____
FIXED EXPENSES					
Implements	acre	10.31	1.0000	10.31	_____
Tractors	acre	16.21	1.0000	16.21	_____
Harvesters	acre	13.81	1.0000	13.81	_____
Contour Flood Irr.	acre	48.51	1.0000	48.51	_____
TOTAL FIXED EXPENSES				88.84	_____
TOTAL SPECIFIED EXPENSES				500.99	_____

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	53.0000	492.90	_____
				-----	
TOTAL INCOME				492.90	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	77.97	1.0000	77.97	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
ADJUVANTS	acre	3.96	1.0000	3.96	_____
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	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.5433	7.70	_____
UNALLOCATED LABOR	hour	14.22	0.3065	4.36	_____
DIESEL FUEL	gal	2.60	16.7455	43.56	_____
REPAIR & MAINTENANCE	acre	24.21	1.0000	24.21	_____
INTEREST ON OP. CAP.	acre	12.54	1.0000	12.54	_____
				-----	
TOTAL DIRECT EXPENSES				412.15	_____
RETURNS ABOVE DIRECT EXPENSES				80.75	_____
TOTAL FIXED EXPENSES				88.84	_____
				-----	
TOTAL SPECIFIED EXPENSES				500.99	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-8.09	_____

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
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	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
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							0.54	0.54	0.96	0.30

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

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						0.20	3.53		3.53
Disk Harrow	24'		2.08	1.42	2.21			0.34	6.05	5.36	11.41
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Spray (Broadcast)	60'		0.85	0.38	0.89			0.10	2.22	1.43	3.65
Glyphosate 3lbs a.e	oz	4.48						0.20	4.68		4.68
Select Max	pt	12.71						0.57	13.28		13.28
Surfactant	pt	1.44						0.06	1.50		1.50
Valor SX	oz	9.14						0.41	9.55		9.55
Soybeans Consultant	acre	6.50						0.20	6.70		6.70
Plant & Pre-Folding	12R-30		1.72	2.32	2.44			0.19	6.67	6.70	13.37
Soybean Seed RR2	lb	67.00						2.01	69.01		69.01
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.06	2.03	1.34	3.37
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Prefix	pt	13.06						0.39	13.45		13.45
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34	3.36
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
App by Air ( 5 gal)	appl	6.50						0.13	6.63		6.63
Quadris Top SBX	oz	19.25						0.39	19.64		19.64
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Acephate 90SP	lb	5.94						0.09	6.03		6.03
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	14.31						0.07	14.38		14.38
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22	2.67
Contour Flood Irr.	acre	2.25	33.23	14.96	5.69			1.15	57.28	56.19	113.47
<b>TOTALS</b>		<b>315.96</b>	<b>43.56</b>	<b>24.21</b>	<b>15.88</b>	<b>0.00</b>	<b>12.54</b>	<b>412.15</b>	<b>88.84</b>	<b>500.99</b>	

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

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	492.90
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	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	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	19.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	26.33	0.00	0.00	47.16	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	5.94	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.44	0.00	0.00	1.44	0.00	0.36	0.00	0.72	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	12.65	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	1.55	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	2.21	0.00	0.00	0.89	0.00	0.00	3.78	2.73	1.61	1.61	0.18	2.87
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	2.08	0.00	0.00	0.85	0.00	0.00	2.44	11.95	10.86	10.86	0.28	4.24
REPAIR & MAINTENANCE	1.42	0.00	0.00	0.38	0.00	0.00	2.68	9.32	2.96	2.96	0.08	4.41
INTEREST ON OP. CAP.	4.59	0.00	0.00	1.34	0.00	0.00	4.18	0.77	0.83	0.41	0.29	0.13
TOTAL DIRECT EXPENSES	81.04	0.00	0.00	31.23	0.00	0.00	143.58	31.50	42.37	28.28	28.19	25.96
NET INCOME	-81.04	0.00	0.00	-31.23	0.00	0.00	-143.58	-31.50	-42.37	-28.28	-28.19	466.94
NET INCOME TO DATE	-81.04	-81.04	-81.04	-112.27	-112.27	-112.27	-255.85	-287.35	-329.72	-358.00	-386.19	80.75

Note: Cost of production estimates are based on 2018 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, RR2, stale seedbed, 12R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-220 -308	-207 -296	-195 -284	-183 -271	-170 -259	-158 -247	-146 -235	-133 -222	-121 -210	-109 -198	-96 -185
60	31.80	bu	-184 -273	-169 -258	-155 -243	-140 -229	-125 -214	-110 -199	-95 -184	-81 -169	-66 -155	-51 -140	-36 -125
70	37.10	bu	-149 -237	-131 -220	-114 -203	-97 -186	-80 -168	-62 -151	-45 -134	-28 -117	-11 -99	6 -82	23 -65
80	42.40	bu	-113 -202	-93 -182	-74 -162	-54 -143	-34 -123	-14 -103	4 -84	24 -64	44 -44	63 -24	83 -5
90	47.70	bu	-78 -166	-55 -144	-33 -122	-11 -100	10 -78	32 -55	55 -33	77 -11	99 10	121 32	143 54
100	53.00	bu	-42 -131	-17 -106	6 -82	31 -57	56 -32	80 -8	105 16	130 41	154 65	179 90	203 115
110	58.30	bu	-6 -95	20 -68	47 -41	74 -14	101 12	128 39	155 66	182 93	209 121	237 148	264 175
120	63.60	bu	28 -60	58 -30	87 -1	117 28	146 58	176 87	206 117	235 146	265 176	294 205	324 235
130	68.90	bu	64 -24	96 7	128 39	160 71	192 103	224 135	256 167	288 199	320 231	352 263	384 295
140	74.20	bu	99 10	134 45	168 79	203 114	237 148	272 183	306 217	341 252	375 286	410 321	444 355
150	79.50	bu	135 46	172 83	209 120	246 157	283 194	320 231	356 268	393 305	430 342	467 379	504 416

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 2018 input prices.

Table 4.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.76	6.4000	4.86	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.34	50.0000	67.00	_____
ADJUVANTS					
Surfactant	pt	3.59	0.6000	2.15	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.1171	1.66	_____
Harvesters	hour	14.23	0.1021	1.45	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL					
Tractors	gal	2.60	1.3567	3.53	_____
Harvesters	gal	2.60	1.3935	3.62	_____
1/2-mi Pivot Irr.	gal	2.60	16.4057	42.66	_____
REPAIR & MAINTENANCE					
Implements	acre	3.26	1.0000	3.26	_____
Tractors	acre	0.70	1.0000	0.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
1/2-mi Pivot Irr.	acre	11.57	1.0000	11.57	_____
INTEREST ON OP. CAP.	acre	10.15	1.0000	10.15	_____
TOTAL DIRECT EXPENSES				384.10	_____
FIXED EXPENSES					
Implements	acre	6.31	1.0000	6.31	_____
Tractors	acre	4.83	1.0000	4.83	_____
Harvesters	acre	15.52	1.0000	15.52	_____
1/2-mi Pivot Irr.	acre	47.36	1.0000	47.36	_____
TOTAL FIXED EXPENSES				74.02	_____
TOTAL SPECIFIED EXPENSES				458.12	_____

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	50.0000	465.00	_____
				-----	
TOTAL INCOME				465.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	47.16	1.0000	47.16	_____
INSECTICIDES	acre	37.28	1.0000	37.28	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
ADJUVANTS	acre	2.16	1.0000	2.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.2193	3.11	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL	gal	2.60	19.1560	49.81	_____
REPAIR & MAINTENANCE	acre	19.14	1.0000	19.14	_____
INTEREST ON OP. CAP.	acre	10.15	1.0000	10.15	_____
				-----	
TOTAL DIRECT EXPENSES				384.10	_____
RETURNS ABOVE DIRECT EXPENSES				80.90	_____
TOTAL FIXED EXPENSES				74.02	_____
				-----	
TOTAL SPECIFIED EXPENSES				458.12	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				6.88	_____

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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				
Inoculant -Soybean	acre					1.0000				
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 2018 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, RR2, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus(46% P2O5)	cwt	20.66						1.24	21.90	21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20	28.20
Soybeans Consultant	acre	6.50						0.20	6.70	6.70
Plant & Pre-Folding	12R-30		2.04	2.35	2.40			0.17	6.96	6.93
Soybean Seed RR2	lb	67.00						1.67	68.67	68.67
CruiserMaxx	oz	6.85						0.17	7.02	7.02
Inoculant -Soybean	acre	1.55						0.04	1.59	1.59
Boundary	pt	22.42						0.56	22.98	22.98
Gramoxone SL 2.0	oz	7.20						0.18	7.38	7.38
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.85	0.38	0.88			0.04	2.15	1.43
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Prefix	pt	13.06						0.26	13.32	13.32
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Quadris Top SBX	oz	19.25						0.29	19.54	19.54
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Acephate 90SP	lb	5.94						0.09	6.03	6.03
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Prevathon	oz	18.48						0.28	18.76	18.76
Surfactant	pt	0.36						0.01	0.37	0.37
Bifenthrin	oz	4.86						0.07	4.93	4.93
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08	8.08
Header -Soybean	25' Flex		3.62	4.50	2.70			0.05	10.87	17.00
Haul Soybeans	bu	13.50						0.07	13.57	13.57
Grain Cart Soybean	700 bu		0.64	0.34	0.56			0.01	1.55	1.30
1/2-mi Pivot Irr.	acre		42.66	11.57	0.47			1.15	55.85	47.36
TOTALS		297.99	49.81	19.14	7.01	0.00	10.15	384.10	74.02	458.12

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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	465.00
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	47.26	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	6.85	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.62	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	29.28	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.72	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	12.65	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	1.55	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	2.44	0.93	0.04	0.00	3.26
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	14.84	17.91	12.80	0.00	4.26
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.63	1.12	0.55	0.00	4.84
INTEREST ON OP. CAP.	4.25	0.00	0.00	0.00	0.00	0.00	0.21	3.41	0.75	1.25	0.15	0.13
TOTAL DIRECT EXPENSES	74.99	0.00	0.00	0.00	0.00	0.00	7.05	139.78	38.25	83.39	14.65	25.99
NET INCOME	-74.99	0.00	0.00	0.00	0.00	0.00	-7.05	-139.78	-38.25	-83.39	-14.65	439.01
NET INCOME TO DATE	-74.99	-74.99	-74.99	-74.99	-74.99	-74.99	-82.04	-221.82	-260.07	-343.46	-358.11	80.90

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-202 -276	-191 -265	-179 -253	-168 -242	-156 -230	-144 -218	-133 -207	-121 -195	-109 -183	-98 -172	-86 -160
60	30.00	bu	-169 -243	-155 -229	-141 -215	-127 -201	-113 -187	-99 -173	-85 -159	-71 -145	-57 -131	-43 -117	-29 -103
70	35.00	bu	-135 -209	-119 -193	-103 -177	-87 -161	-70 -144	-54 -128	-38 -112	-21 -95	-5 -79	10 -63	26 -47
80	40.00	bu	-102 -176	-83 -157	-65 -139	-46 -120	-27 -102	-9 -83	9 -64	27 -46	46 -27	65 -9	83 9
90	45.00	bu	-68 -142	-47 -121	-27 -101	-6 -80	14 -59	35 -38	56 -17	77 3	98 24	119 45	140 66
100	50.00	bu	-35 -109	-12 -86	11 -62	34 -39	57 -16	80 6	104 30	127 53	150 76	173 99	197 123
110	55.00	bu	-1 -75	23 -50	49 -24	74 0	100 26	126 52	151 77	177 103	202 128	228 154	253 179
120	60.00	bu	31 -42	59 -14	87 13	115 41	143 69	171 97	199 125	226 152	254 180	282 208	310 236
130	65.00	bu	65 -8	95 21	125 51	155 81	186 112	216 142	246 172	276 202	307 232	337 263	367 293
140	70.00	bu	98 24	131 57	163 89	196 122	228 154	261 187	294 220	326 252	359 285	391 317	424 350
150	75.00	bu	132 58	167 93	201 127	236 162	271 197	306 232	341 267	376 302	411 337	446 372	480 406

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 2018 input prices.

Table 5.A Estimated costs per acre  
Soybeans, full-season, RR2, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	23.75	0.6600	15.68	_____
Potash (60% K2O)	cwt	20.00	1.0000	20.00	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.34	50.0000	67.00	_____
ADJUVANTS					
Surfactant	pt	3.59	0.6000	2.15	_____
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	38.00	0.3330	12.65	_____
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	14.23	0.3128	4.44	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR					
	hour	14.24	0.3734	5.32	_____
DIESEL FUEL					
Tractors	gal	2.60	3.0592	7.96	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	4.75	1.0000	4.75	_____
Tractors	acre	1.70	1.0000	1.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	9.12	1.0000	9.12	_____
TOTAL DIRECT EXPENSES				278.47	_____
FIXED EXPENSES					
Implements	acre	10.48	1.0000	10.48	_____
Tractors	acre	11.82	1.0000	11.82	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				37.82	_____
TOTAL SPECIFIED EXPENSES				316.29	_____

Note: Cost of production estimates are based on 2018 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, RR2, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	43.0000	399.90	_____
				-----	
TOTAL INCOME				399.90	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.00	1.0000	13.00	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	35.68	1.0000	35.68	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	60.92	1.0000	60.92	_____
INSECTICIDES	acre	5.94	1.0000	5.94	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
ADJUVANTS	acre	2.16	1.0000	2.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
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	14.23	0.4149	5.89	_____
UNALLOCATED LABOR	hour	14.24	0.3734	5.32	_____
DIESEL FUEL	gal	2.60	4.4528	11.58	_____
REPAIR & MAINTENANCE	acre	10.06	1.0000	10.06	_____
INTEREST ON OP. CAP.	acre	9.12	1.0000	9.12	_____
				-----	
TOTAL DIRECT EXPENSES				278.47	_____
RETURNS ABOVE DIRECT EXPENSES				121.43	_____
TOTAL FIXED EXPENSES				37.82	_____
				-----	
TOTAL SPECIFIED EXPENSES				316.29	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				83.61	_____

Note: Cost of production estimates are based on 2018 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, RR2, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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 2018 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, RR2, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus(46% P2O5)	cwt	15.68						0.94	16.62	16.62
Potash (60% K2O)	cwt	20.00						1.20	21.20	21.20
Disk Harrow	24'		2.08	1.42	2.21			0.34	6.05	5.36
Field Cultivate Fld	24'		1.58	0.78	1.69			0.24	4.29	4.43
App by Air ( 5 gal)	appl	6.50						0.23	6.73	6.73
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64	4.64
2,4-D Amine 4	pt	4.80						0.17	4.97	4.97
Plant - Folding	12R-30		1.60	1.95	2.27			0.17	5.99	5.79
Soybean Seed RR2	lb	67.00						2.01	69.01	69.01
CruiserMaxx	oz	6.85						0.21	7.06	7.06
Boundary	pt	22.42						0.67	23.09	23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42	7.42
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Prefix	pt	13.06						0.33	13.39	13.39
Soybeans Consultant	acre	6.50						0.16	6.66	6.66
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Spray (Broadcast)	60'		0.72	0.36	0.89			0.02	1.99	1.34
Acephate 90SP	lb	5.94						0.06	6.00	6.00
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.72						0.01	0.73	0.73
Header -Soybean	25' Flex		3.62	4.50	2.76			0.05	10.93	17.00
Haul Soybeans	bu	11.61						0.06	11.67	11.67
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22
TOTALS		235.54	11.58	10.06	12.17	0.00	9.12	278.47	37.82	316.29

Note: Cost of production estimates are based on 2018 input price.

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, RR2, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	399.90
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	35.68	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.28	29.62	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	5.94	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.72	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	12.65	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	3.90	0.00	0.00	0.00	0.00	0.00	2.27	1.78	0.00	0.00	0.89	3.33
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	3.66	0.00	0.00	0.00	0.00	0.00	1.60	1.44	0.00	0.00	0.72	4.16
REPAIR & MAINTENANCE	2.20	0.00	0.00	0.00	0.00	0.00	1.95	0.72	0.00	0.00	0.36	4.83
INTEREST ON OP. CAP.	4.13	0.00	0.00	0.00	0.00	0.56	3.32	0.81	0.00	0.00	0.18	0.12
TOTAL DIRECT EXPENSES	73.05	0.00	0.00	0.00	0.00	16.34	114.05	33.27	0.00	0.00	17.71	24.05
NET INCOME	-73.05	0.00	0.00	0.00	0.00	-16.34	-114.05	-33.27	0.00	0.00	-17.71	375.85
NET INCOME TO DATE	-73.05	-73.05	-73.05	-73.05	-73.05	-89.39	-203.44	-236.71	-236.71	-236.71	-254.42	121.43

Note: Cost of production estimates are based on 2018 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, RR2, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-122	-112	-102	-92	-82	-72	-62	-52	-42	-32	-22
			-160	-150	-140	-130	-120	-110	-100	-90	-80	-70	-60
60	25.80	bu	-93	-81	-69	-57	-45	-33	-21	-9	2	14	26
			-131	-119	-107	-95	-83	-71	-59	-47	-35	-23	-11
70	30.10	bu	-65	-51	-37	-23	-9	4	18	32	46	60	74
			-102	-88	-74	-60	-46	-32	-18	-4	9	23	37
80	34.40	bu	-36	-20	-4	11	27	43	59	75	91	107	123
			-74	-58	-42	-26	-10	5	21	37	53	69	85
90	38.70	bu	-7	10	28	46	64	82	100	118	136	154	172
			-45	-27	-9	8	26	44	62	80	98	116	134
100	43.00	bu	21	41	61	81	101	121	141	161	181	201	221
			-16	3	23	43	63	83	103	123	143	163	183
110	47.30	bu	50	72	94	116	138	160	182	204	226	248	270
			12	34	56	78	100	122	144	166	188	210	232
120	51.60	bu	79	103	127	151	175	199	223	247	271	295	319
			41	65	89	113	137	161	185	209	233	257	281
130	55.90	bu	107	133	159	185	211	237	263	289	315	341	367
			70	96	122	148	174	200	226	252	278	304	330
140	60.20	bu	136	164	192	220	248	276	304	332	360	388	416
			98	126	154	182	210	238	266	294	322	350	378
150	64.50	bu	165	195	225	255	285	315	345	375	405	435	465
			127	157	187	217	247	277	307	337	367	397	427

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 2018 input prices.

Table 6.A Estimated costs per acre  
Soybeans, full-season, RR2, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	23.75	0.6600	15.68	_____
Potash (60% K2O)	cwt	20.00	1.0000	20.00	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	12.71	1.0000	12.71	_____
Fierce	oz	7.54	3.5000	26.39	_____
Gramoxone SL 2.0	oz	0.15	96.0000	14.40	_____
Boundary	pt	11.21	2.0000	22.42	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Dimilin 2L	oz	2.13	1.0000	2.13	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Baythroid XL	oz	2.65	1.0650	2.82	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.34	50.0000	67.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.4500	5.21	_____
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	38.00	0.3330	12.65	_____
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	14.23	0.4647	6.60	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.1523	1.38	_____
UNALLOCATED LABOR	hour	14.22	0.5102	7.26	_____
DIESEL FUEL					
Tractors	gal	2.60	4.6579	12.12	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	6.17	1.0000	6.17	_____
Tractors	acre	2.56	1.0000	2.56	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	8.78	1.0000	8.78	_____
TOTAL DIRECT EXPENSES				343.83	_____
FIXED EXPENSES					
Implements	acre	13.35	1.0000	13.35	_____
Tractors	acre	17.79	1.0000	17.79	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				46.66	_____
TOTAL SPECIFIED EXPENSES				390.49	_____

Note: Cost of production estimates are based on 2018 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, RR2, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	40.0000	372.00	_____
				-----	
TOTAL INCOME				372.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	35.68	1.0000	35.68	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	102.42	1.0000	102.42	_____
INSECTICIDES	acre	23.43	1.0000	23.43	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
ADJUVANTS	acre	5.22	1.0000	5.22	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
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	14.23	0.5669	8.05	_____
UNALLOCATED LABOR	hour	14.22	0.5102	7.26	_____
DIESEL FUEL	gal	2.60	6.0515	15.74	_____
REPAIR & MAINTENANCE	acre	12.34	1.0000	12.34	_____
INTEREST ON OP. CAP.	acre	8.78	1.0000	8.78	_____
				-----	
TOTAL DIRECT EXPENSES				343.83	_____
RETURNS ABOVE DIRECT EXPENSES				28.17	_____
TOTAL FIXED EXPENSES				46.66	_____
				-----	
TOTAL SPECIFIED EXPENSES				390.49	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-18.49	_____

Note: Cost of production estimates are based on 2018 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, RR2, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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 2018 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, RR2, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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						0.02	3.35		3.35
Lime (Spread)	ton	12.65						0.06	12.71		12.71
Disk Harrow	24'		2.08	1.42	2.21			0.03	5.74	5.36	11.10
Field Cultivate Fld	24'		1.58	0.78	1.69			0.02	4.07	4.43	8.50
Bed/Lister-Roll-Fold	12R-30		1.88	0.83	1.69			0.02	4.42	3.91	8.33
Spray (Broadcast)	60'		0.72	0.36	0.89			0.09	2.06	1.34	3.40
Glyphosate 3lbs a.e	oz	4.48						0.20	4.68		4.68
Select Max	pt	12.71						0.57	13.28		13.28
Surfactant	pt	1.44						0.06	1.50		1.50
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	15.68						0.55	16.23		16.23
Potash (60% K2O)	cwt	20.00						0.70	20.70		20.70
Spray (Broadcast)	60'		0.72	0.36	0.89			0.07	2.04	1.34	3.38
Fierce	oz	26.39						0.92	27.31		27.31
Gramoxone SL 2.0	oz	7.20						0.25	7.45		7.45
Surfactant	pt	1.44						0.05	1.49		1.49
Soybeans Consultant	acre	6.50						0.20	6.70		6.70
Plant & Pre-Folding	12R-30		1.72	2.32	2.44			0.19	6.67	6.70	13.37
Soybean Seed RR2	lb	67.00						2.01	69.01		69.01
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.06	2.03	1.34	3.37
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Prefix	pt	13.06						0.39	13.45		13.45
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34	3.36
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Spray (Broadcast)	60'		0.36	0.18	0.44			0.02	1.00	0.67	1.67
Dimilin 2L	oz	2.13						0.04	2.17		2.17
Surfactant	pt	0.18							0.18		0.18
Spray (Broadcast)	60'		0.72	0.36	0.89			0.03	2.00	1.34	3.34
Prevathon	oz	18.48						0.28	18.76		18.76
Spray (Broadcast)	60'		0.36	0.18	0.44			0.01	0.99	0.67	1.66
Baythroid XL	oz	2.82						0.04	2.86		2.86
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	25' Flex		3.62	4.50	2.76			0.05	10.93	17.00	27.93
Haul Soybeans	bu	10.80						0.05	10.85		10.85
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22	2.67
TOTALS		290.28	15.74	12.34	16.69	0.00	8.78	343.83	46.66	390.49	

Note: Cost of production estimates are based on 2018 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, RR2, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	372.00
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	35.68	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	17.19	0.00	33.59	47.16	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	2.13	21.30	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.44	0.00	1.44	1.44	0.00	0.18	0.00	0.72	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	12.65
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	0.89	0.00	0.89	3.33	0.89	0.44	1.33	0.00	8.92
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	0.72	0.00	0.72	2.44	0.72	0.36	1.08	0.00	9.70
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.36	0.00	0.36	2.68	0.36	0.18	0.54	0.00	7.86
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.92	0.00	2.80	4.12	0.16	0.06	0.36	0.10	0.26
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	21.52	0.00	82.98	141.52	6.61	3.35	24.61	9.72	53.52
NET INCOME	0.00	0.00	0.00	-21.52	0.00	-82.98	-141.52	-6.61	-3.35	-24.61	-9.72	318.48
NET INCOME TO DATE	0.00	0.00	0.00	-21.52	-21.52	-104.50	-246.02	-252.63	-255.98	-280.59	-290.31	28.17

Note: Cost of production estimates are based on 2018 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, RR2, May planted, 12R 30"  
 Non-Delta Area, Mississippi, 2019

PRODUCT			PERCENT										
-----			75	80	85	90	95	100	105	110	115	120	125
-----			PRODUCT PRICE										
-----			-----										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	-----dollars-----										
50	20.00	bu	-198	-189	-180	-171	-161	-152	-143	-133	-124	-115	-105
			-245	-236	-226	-217	-208	-199	-189	-180	-171	-161	-152
60	24.00	bu	-172	-160	-149	-138	-127	-116	-105	-93	-82	-71	-60
			-218	-207	-196	-185	-174	-162	-151	-140	-129	-118	-107
70	28.00	bu	-145	-132	-119	-106	-93	-80	-67	-54	-41	-28	-15
			-191	-178	-165	-152	-139	-126	-113	-100	-87	-74	-61
80	32.00	bu	-118	-103	-88	-73	-58	-44	-29	-14	0	15	30
			-165	-150	-135	-120	-105	-90	-75	-60	-46	-31	-16
90	36.00	bu	-91	-74	-58	-41	-24	-7	8	25	42	59	75
			-138	-121	-104	-88	-71	-54	-37	-21	-4	12	29
100	40.00	bu	-64	-46	-27	-9	9	28	46	65	83	102	121
			-111	-92	-74	-55	-37	-18	0	18	37	55	74
110	44.00	bu	-38	-17	2	23	43	64	84	105	125	146	166
			-84	-64	-43	-23	-2	17	38	58	79	99	119
120	48.00	bu	-11	11	33	55	78	100	122	145	167	189	212
			-57	-35	-13	9	31	53	76	98	120	143	165
130	52.00	bu	15	39	63	88	112	136	160	184	209	233	257
			-31	-6	17	41	65	89	114	138	162	186	210
140	56.00	bu	42	68	94	120	146	172	198	224	250	276	302
			-4	21	47	73	99	125	152	178	204	230	256
150	60.00	bu	69	97	125	152	180	208	236	264	292	320	348
			22	50	78	106	134	162	189	217	245	273	301

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 2018 input prices.

Table 7.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2019

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	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
HERBICIDES					
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.76	6.4000	4.86	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.34	50.0000	67.00	_____
ADJUVANTS					
Surfactant	pt	3.59	0.5000	1.80	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.1171	1.66	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL					
Tractors	gal	2.60	1.3567	3.53	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	3.26	1.0000	3.26	_____
Tractors	acre	0.70	1.0000	0.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	8.56	1.0000	8.56	_____
TOTAL DIRECT EXPENSES				294.95	_____
FIXED EXPENSES					
Implements	acre	6.31	1.0000	6.31	_____
Tractors	acre	4.83	1.0000	4.83	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				26.66	_____
TOTAL SPECIFIED EXPENSES				321.61	_____

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	25.0000	232.50	_____
				-----	
TOTAL INCOME				232.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	47.16	1.0000	47.16	_____
INSECTICIDES	acre	37.28	1.0000	37.28	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
ADJUVANTS	acre	1.80	1.0000	1.80	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
OPERATOR LABOR	hour	14.23	0.2193	3.11	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL	gal	2.60	2.7503	7.15	_____
REPAIR & MAINTENANCE	acre	7.57	1.0000	7.57	_____
INTEREST ON OP. CAP.	acre	8.56	1.0000	8.56	_____
				-----	
TOTAL DIRECT EXPENSES				294.95	_____
RETURNS ABOVE DIRECT EXPENSES				-62.45	_____
TOTAL FIXED EXPENSES				26.66	_____
				-----	
TOTAL SPECIFIED EXPENSES				321.61	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-89.11	_____

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2019

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				
Inoculant -Soybean	acre					1.0000				
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 2018 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, RR2, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus(46% P2O5)	cwt	20.66						1.24	21.90	21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20	28.20
Soybeans Consultant	acre	6.50						0.20	6.70	6.70
Plant & Pre-Folding	12R-30		2.04	2.35	2.40			0.17	6.96	6.93
Soybean Seed RR2	lb	67.00						1.67	68.67	68.67
CruiserMaxx	oz	6.85						0.17	7.02	7.02
Inoculant -Soybean	acre	1.55						0.04	1.59	1.59
Boundary	pt	22.42						0.56	22.98	22.98
Gramoxone SL 2.0	oz	7.20						0.18	7.38	7.38
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.85	0.38	0.88			0.04	2.15	1.43
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Prefix	pt	13.06						0.26	13.32	13.32
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Acephate 90SP	lb	5.94						0.09	6.03	6.03
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Prevathon	oz	18.48						0.28	18.76	18.76
Surfactant	pt	0.36						0.01	0.37	0.37
Bifenthrin	oz	4.86						0.07	4.93	4.93
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08	8.08
Header -Soybean	25' Flex		3.62	4.50	2.70			0.05	10.87	17.00
Haul Soybeans	bu	6.75						0.03	6.78	6.78
Grain Cart Soybean	700 bu		0.64	0.34	0.56			0.01	1.55	1.30
TOTALS		265.13	7.15	7.57	6.54	0.00	8.56	294.95	26.66	321.61

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2019

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	232.50
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	47.26	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	6.85	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.62	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	29.28	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.36	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	12.65	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	1.55	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	2.40	0.88	0.00	0.00	3.26
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	2.04	0.85	0.00	0.00	4.26
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	0.38	0.00	0.00	4.84
INTEREST ON OP. CAP.	4.25	0.00	0.00	0.00	0.00	0.00	0.20	2.83	0.39	0.65	0.15	0.09
TOTAL DIRECT EXPENSES	74.99	0.00	0.00	0.00	0.00	0.00	6.70	116.08	20.04	43.29	14.65	19.20
NET INCOME	-74.99	0.00	0.00	0.00	0.00	0.00	-6.70	-116.08	-20.04	-43.29	-14.65	213.30
NET INCOME TO DATE	-74.99	-74.99	-74.99	-74.99	-74.99	-74.99	-81.69	-197.77	-217.81	-261.10	-275.75	-62.45

Note: Cost of production estimates are based on 2018 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, RR2, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-204	-198	-192	-186	-181	-175	-169	-163	-157	-152	-146
			-231	-225	-219	-213	-207	-201	-196	-190	-184	-178	-172
60	15.00	bu	-187	-180	-173	-166	-159	-152	-145	-138	-131	-124	-117
			-214	-207	-200	-193	-186	-179	-172	-165	-158	-151	-144
70	17.50	bu	-170	-162	-154	-146	-138	-130	-122	-113	-105	-97	-89
			-197	-189	-181	-173	-164	-156	-148	-140	-132	-124	-116
80	20.00	bu	-154	-144	-135	-126	-116	-107	-98	-88	-79	-70	-61
			-180	-171	-162	-152	-143	-134	-124	-115	-106	-97	-87
90	22.50	bu	-137	-126	-116	-105	-95	-85	-74	-64	-53	-43	-32
			-163	-153	-143	-132	-122	-111	-101	-90	-80	-69	-59
100	25.00	bu	-120	-108	-97	-85	-74	-62	-50	-39	-27	-15	-4
			-147	-135	-123	-112	-100	-89	-77	-65	-54	-42	-30
110	27.50	bu	-103	-91	-78	-65	-52	-39	-27	-14	-1	11	24
			-130	-117	-104	-92	-79	-66	-53	-40	-28	-15	-2
120	30.00	bu	-87	-73	-59	-45	-31	-17	-3	10	24	38	52
			-113	-99	-85	-71	-57	-43	-30	-16	-2	11	25
130	32.50	bu	-70	-55	-40	-24	-9	5	20	35	50	65	80
			-96	-81	-66	-51	-36	-21	-6	8	23	39	54
140	35.00	bu	-53	-37	-20	-4	11	27	44	60	76	92	109
			-80	-63	-47	-31	-15	1	17	33	50	66	82
150	37.50	bu	-36	-19	-1	15	32	50	67	85	102	120	137
			-63	-46	-28	-11	6	23	41	58	76	93	110

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 2018 input prices.

Table 8.A Estimated costs per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.55	50.0000	77.50	_____
ADJUVANTS					
Surfactant	pt	3.59	1.0000	3.59	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.3302	4.69	_____
Harvesters	hour	14.23	0.0851	1.21	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR	hour	14.22	0.3738	5.32	_____
DIESEL FUEL					
Tractors	gal	2.60	3.8252	9.94	_____
Harvesters	gal	2.60	1.4243	3.70	_____
REPAIR & MAINTENANCE					
Implements	acre	4.94	1.0000	4.94	_____
Tractors	acre	1.97	1.0000	1.97	_____
Harvesters	acre	3.21	1.0000	3.21	_____
INTEREST ON OP. CAP.	acre	12.00	1.0000	12.00	_____
				-----	
TOTAL DIRECT EXPENSES				367.86	_____
FIXED EXPENSES					
Implements	acre	11.12	1.0000	11.12	_____
Tractors	acre	13.61	1.0000	13.61	_____
Harvesters	acre	13.81	1.0000	13.81	_____
				-----	
TOTAL FIXED EXPENSES				38.54	_____
				-----	
TOTAL SPECIFIED EXPENSES				406.40	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	42.0000	390.60	_____
				-----	
TOTAL INCOME				390.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	96.35	1.0000	96.35	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
SEED/PLANTS	acre	77.50	1.0000	77.50	_____
ADJUVANTS	acre	3.60	1.0000	3.60	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
OPERATOR LABOR	hour	14.23	0.4154	5.90	_____
UNALLOCATED LABOR	hour	14.22	0.3738	5.32	_____
DIESEL FUEL	gal	2.60	5.2496	13.64	_____
REPAIR & MAINTENANCE	acre	10.12	1.0000	10.12	_____
INTEREST ON OP. CAP.	acre	12.00	1.0000	12.00	_____
				-----	
TOTAL DIRECT EXPENSES				367.86	_____
RETURNS ABOVE DIRECT EXPENSES				22.74	_____
TOTAL FIXED EXPENSES				38.54	_____
				-----	
TOTAL SPECIFIED EXPENSES				406.40	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-15.80	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
Incidental Pest				1.00	Aug					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
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>							<b>0.41</b>	<b>0.41</b>	<b>0.51</b>	<b>0.37</b>

Note: Cost of production estimates are based on 2018 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, 2019

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						0.20	3.53		3.53
Subsoiler	3 shank		1.23	0.32	1.10			0.16	2.81	1.90	4.71
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Disk Harrow	24'		2.46	1.46	2.21			0.37	6.50	5.64	12.14
Field Cultivate Fld	24'		1.87	0.81	1.69			0.26	4.63	4.65	9.28
App by Air ( 5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Select Max	pt	12.71						0.51	13.22		13.22
Valor SX	oz	9.14						0.37	9.51		9.51
Surfactant	pt	1.44						0.06	1.50		1.50
Plant & Pre-Folding	12R-30		2.04	2.35	2.44			0.20	7.03	6.93	13.96
Soybean Seed RR2X	lb	77.50						2.32	79.82		79.82
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Soybeans Consultant	acre	6.50						0.16	6.66		6.66
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Prefix	pt	13.06						0.33	13.39		13.39
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Zidua	oz	13.58						0.34	13.92		13.92
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Acephate 90SP	lb	5.94						0.06	6.00		6.00
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	11.34						0.06	11.40		11.40
Grain Cart Soybean	700 bu		0.64	0.34	0.57			0.01	1.56	1.30	2.86
TOTALS		320.01	13.64	10.12	12.09	0.00	12.00	367.86	38.54	406.40	

Note: Cost of production estimates are based on 2018 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, 2019

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	390.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	19.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.13	0.00	29.62	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	13.94	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	77.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.44	0.00	1.44	0.00	0.00	0.00	0.72	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	12.65	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	1.55	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	5.00	0.00	0.00	0.00	0.00	0.00	2.44	1.78	0.00	0.00	0.00	2.87
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	5.56	0.00	0.00	0.00	0.00	0.00	2.04	1.70	0.00	0.00	0.00	4.34
REPAIR & MAINTENANCE	2.59	0.00	0.00	0.00	0.00	0.00	2.35	0.76	0.00	0.00	0.00	4.42
INTEREST ON OP. CAP.	5.04	0.00	0.00	0.00	1.57	0.00	3.71	1.15	0.00	0.00	0.41	0.12
TOTAL DIRECT EXPENSES	88.93	0.00	0.00	0.00	40.64	0.00	127.50	47.49	0.00	0.00	40.21	23.09
NET INCOME	-88.93	0.00	0.00	0.00	-40.64	0.00	-127.50	-47.49	0.00	0.00	-40.21	367.51
NET INCOME TO DATE	-88.93	-88.93	-88.93	-88.93	-129.57	-129.57	-257.07	-304.56	-304.56	-304.56	-344.77	22.74

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-215 -254	-205 -244	-196 -234	-186 -224	-176 -215	-166 -205	-157 -195	-147 -185	-137 -176	-127 -166	-118 -156
60	25.20	bu	-187 -226	-175 -214	-164 -202	-152 -190	-140 -179	-128 -167	-117 -155	-105 -144	-93 -132	-82 -120	-70 -108
70	29.40	bu	-159 -197	-145 -184	-132 -170	-118 -156	-104 -143	-91 -129	-77 -115	-63 -102	-50 -88	-36 -74	-22 -61
80	33.60	bu	-131 -169	-115 -154	-99 -138	-84 -122	-68 -107	-53 -91	-37 -76	-21 -60	-6 -44	9 -29	25 -13
90	37.80	bu	-103 -141	-85 -124	-67 -106	-50 -88	-32 -71	-15 -53	2 -36	19 -18	37 -0	55 16	72 34
100	42.00	bu	-74 -113	-55 -93	-35 -74	-16 -54	3 -35	22 -15	42 3	61 23	81 42	100 62	120 81
110	46.20	bu	-46 -85	-25 -63	-3 -42	17 -20	39 0	60 22	82 43	103 65	125 86	146 108	168 129
120	50.40	bu	-18 -57	4 -33	28 -10	51 13	75 36	98 60	122 83	145 106	168 130	192 153	215 177
130	54.60	bu	9 -28	34 -3	60 21	85 47	111 72	136 97	161 123	187 148	212 174	238 199	263 224
140	58.80	bu	37 -0	65 26	92 53	119 81	147 108	174 135	201 163	229 190	256 217	283 245	311 272
150	63.00	bu	65 27	95 56	124 85	153 115	183 144	212 173	241 203	270 232	300 261	329 290	358 320

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 2018 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, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.55	50.0000	77.50	_____
ADJUVANTS					
Surfactant	pt	3.59	1.1000	3.95	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.4713	6.70	_____
Harvesters	hour	14.23	0.0851	1.21	_____
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	14.22	0.4301	6.12	_____
DIESEL FUEL					
Tractors	gal	2.60	5.2753	13.70	_____
Harvesters	gal	2.60	1.4243	3.70	_____
Roll-Out Pipe Irr.	gal	2.60	7.3316	19.05	_____
REPAIR & MAINTENANCE					
Implements	acre	5.60	1.0000	5.60	_____
Tractors	acre	2.74	1.0000	2.74	_____
Harvesters	acre	3.21	1.0000	3.21	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	13.51	1.0000	13.51	_____
TOTAL DIRECT EXPENSES				445.83	_____
FIXED EXPENSES					
Implements	acre	13.59	1.0000	13.59	_____
Tractors	acre	18.92	1.0000	18.92	_____
Harvesters	acre	13.81	1.0000	13.81	_____
Roll-Out Pipe Irr.	acre	61.50	1.0000	61.50	_____
TOTAL FIXED EXPENSES				107.82	_____
TOTAL SPECIFIED EXPENSES				553.65	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	60.0000	558.00	_____
				-----	
TOTAL INCOME				558.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	32.50	1.0000	32.50	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	96.35	1.0000	96.35	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	77.50	1.0000	77.50	_____
ADJUVANTS	acre	3.96	1.0000	3.96	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.5564	7.91	_____
UNALLOCATED LABOR	hour	14.22	0.4301	6.12	_____
DIESEL FUEL	gal	2.60	14.0313	36.45	_____
REPAIR & MAINTENANCE	acre	18.44	1.0000	18.44	_____
INTEREST ON OP. CAP.	acre	13.51	1.0000	13.51	_____
				-----	
TOTAL DIRECT EXPENSES				445.83	_____
RETURNS ABOVE DIRECT EXPENSES				112.17	_____
				-----	
TOTAL FIXED EXPENSES				107.82	_____
				-----	
TOTAL SPECIFIED EXPENSES				553.65	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				4.35	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
Incidental Pest				1.00	Aug					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
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	
<b>TOTALS</b>							<b>0.55</b>	<b>0.55</b>	<b>1.01</b>	<b>0.43</b>

Note: Cost of production estimates are based on 2018 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, 2019

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						0.20	3.53		3.53
Subsoiler	3 shank		1.23	0.32	1.10			0.16	2.81	1.90	4.71
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Disk Harrow	24'		2.46	1.46	2.21			0.37	6.50	5.64	12.14
Field Cultivate Fld	24'		1.87	0.81	1.69			0.26	4.63	4.65	9.28
Bed/Lister-Roll-Fold	12R-30		1.88	0.83	1.69			0.26	4.66	3.91	8.57
App by Air ( 5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Select Max	pt	12.71						0.51	13.22		13.22
Valor SX	oz	9.14						0.37	9.51		9.51
Surfactant	pt	1.44						0.06	1.50		1.50
Plant & Pre-Folding	12R-30		2.04	2.35	2.44			0.20	7.03	6.93	13.96
Soybean Seed RR2X	lb	77.50						2.32	79.82		79.82
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Soybeans Consultant	acre	6.50						0.16	6.66		6.66
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Prefix	pt	13.06						0.33	13.39		13.39
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Zidua	oz	13.58						0.34	13.92		13.92
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Quadris Top SBX	oz	19.25						0.29	19.54		19.54
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Acephate 90SP	lb	5.94						0.06	6.00		6.00
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	16.20						0.08	16.28		16.28
Grain Cart Soybean	700 bu		0.64	0.34	0.57			0.01	1.56	1.30	2.86
Roll-Out Pipe Irr.	acre	8.25	20.93	7.49	4.42			0.83	41.92	65.37	107.29
TOTALS		359.23	36.45	18.44	18.20	0.00	13.51	445.83	107.82	553.65	

Note: Cost of production estimates are based on 2018 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, 2019

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	558.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	6.50	19.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.13	0.00	29.62	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	13.94	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	77.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.44	0.00	1.44	0.00	0.00	0.36	0.72	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	12.65	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	1.55	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	7.23	0.00	0.00	0.00	0.00	0.00	2.44	2.01	2.81	0.23	0.00	3.48
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	8.40	0.00	0.00	0.00	0.00	0.00	2.04	1.70	13.19	6.35	0.00	4.77
REPAIR & MAINTENANCE	3.74	0.00	0.00	0.00	0.00	0.00	2.35	0.76	5.73	1.31	0.00	4.55
INTEREST ON OP. CAP.	5.41	0.00	0.00	0.00	1.57	0.00	3.71	1.16	0.59	0.51	0.41	0.15
TOTAL DIRECT EXPENSES	95.52	0.00	0.00	0.00	40.64	0.00	127.50	47.73	30.57	34.51	40.21	29.15
NET INCOME	-95.52	0.00	0.00	0.00	-40.64	0.00	-127.50	-47.73	-30.57	-34.51	-40.21	528.85
NET INCOME TO DATE	-95.52	-95.52	-95.52	-95.52	-136.16	-136.16	-263.66	-311.39	-341.96	-376.47	-416.68	112.17

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
			dollars										
PERCENT	YIELD	UNIT											
50	30.00	bu	-228 -336	-214 -322	-200 -308	-186 -294	-172 -280	-158 -266	-144 -252	-130 -238	-116 -224	-102 -210	-88 -196
60	36.00	bu	-188 -296	-171 -279	-154 -262	-137 -245	-121 -229	-104 -212	-87 -195	-71 -178	-54 -162	-37 -145	-20 -128
70	42.00	bu	-147 -255	-128 -236	-108 -216	-89 -197	-69 -177	-50 -158	-30 -138	-11 -119	8 -99	27 -80	47 -60
80	48.00	bu	-107 -215	-85 -193	-63 -170	-40 -148	-18 -126	3 -103	26 -81	48 -59	70 -37	93 -14	115 7
90	54.00	bu	-67 -175	-42 -150	-17 -125	7 -100	32 -74	57 -49	83 -24	108 0	133 25	158 50	183 75
100	60.00	bu	-27 -135	0 -107	28 -79	56 -51	84 -23	112 4	140 32	167 60	195 88	223 115	251 143
110	66.00	bu	12 -94	43 -64	74 -33	104 -2	135 27	166 58	197 89	227 119	258 150	289 181	319 211
120	72.00	bu	53 -54	86 -21	120 12	153 45	187 79	220 112	253 146	287 179	320 213	354 246	387 280
130	78.00	bu	93 -14	129 21	165 58	202 94	238 130	274 166	310 203	347 239	383 275	419 311	456 348
140	84.00	bu	133 25	172 64	211 103	250 142	289 181	328 221	367 260	406 299	446 338	485 377	524 416
150	90.00	bu	173 65	215 107	257 149	299 191	341 233	383 275	424 317	466 358	508 400	550 442	592 484

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 2018 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, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.55	50.0000	77.50	_____
ADJUVANTS					
Surfactant	pt	3.59	1.1000	3.95	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.4582	6.49	_____
Harvesters	hour	14.23	0.0851	1.21	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR					
	hour	14.22	0.3065	4.36	_____
DIESEL FUEL					
Tractors	gal	2.60	4.3236	11.27	_____
Harvesters	gal	2.60	1.4243	3.70	_____
Contour Flood Irr.	gal	2.60	10.9974	28.59	_____
REPAIR & MAINTENANCE					
Implements	acre	4.85	1.0000	4.85	_____
Tractors	acre	2.35	1.0000	2.35	_____
Harvesters	acre	3.21	1.0000	3.21	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	12.85	1.0000	12.85	_____
TOTAL DIRECT EXPENSES				422.96	_____
FIXED EXPENSES					
Implements	acre	10.31	1.0000	10.31	_____
Tractors	acre	16.21	1.0000	16.21	_____
Harvesters	acre	13.81	1.0000	13.81	_____
Contour Flood Irr.	acre	48.51	1.0000	48.51	_____
TOTAL FIXED EXPENSES				88.84	_____
TOTAL SPECIFIED EXPENSES				511.80	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	53.0000	492.90	_____
				-----	
TOTAL INCOME				492.90	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	77.97	1.0000	77.97	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
SEED/PLANTS	acre	77.50	1.0000	77.50	_____
ADJUVANTS	acre	3.96	1.0000	3.96	_____
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	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.5433	7.70	_____
UNALLOCATED LABOR	hour	14.22	0.3065	4.36	_____
DIESEL FUEL	gal	2.60	16.7455	43.56	_____
REPAIR & MAINTENANCE	acre	24.21	1.0000	24.21	_____
INTEREST ON OP. CAP.	acre	12.85	1.0000	12.85	_____
				-----	
TOTAL DIRECT EXPENSES				422.96	_____
RETURNS ABOVE DIRECT EXPENSES				69.94	_____
TOTAL FIXED EXPENSES				88.84	_____
				-----	
TOTAL SPECIFIED EXPENSES				511.80	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-18.90	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
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	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
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	
<b>TOTALS</b>							<b>0.54</b>	<b>0.54</b>	<b>0.96</b>	<b>0.30</b>

Note: Cost of production estimates are based on 2018 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, 2019

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						0.20	3.53		3.53
Disk Harrow	24'		2.08	1.42	2.21			0.34	6.05	5.36	11.41
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Spray (Broadcast)	60'		0.85	0.38	0.89			0.10	2.22	1.43	3.65
Glyphosate 3lbs a.e	oz	4.48						0.20	4.68		4.68
Select Max	pt	12.71						0.57	13.28		13.28
Surfactant	pt	1.44						0.06	1.50		1.50
Valor SX	oz	9.14						0.41	9.55		9.55
Soybeans Consultant	acre	6.50						0.20	6.70		6.70
Plant & Pre-Folding	12R-30		1.72	2.32	2.44			0.19	6.67	6.70	13.37
Soybean Seed RR2X	lb	77.50						2.32	79.82		79.82
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.06	2.03	1.34	3.37
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Prefix	pt	13.06						0.39	13.45		13.45
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34	3.36
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
App by Air ( 5 gal)	appl	6.50						0.13	6.63		6.63
Quadris Top SBX	oz	19.25						0.39	19.64		19.64
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Acephate 90SP	lb	5.94						0.09	6.03		6.03
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	14.31						0.07	14.38		14.38
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22	2.67
Contour Flood Irr.	acre	2.25	33.23	14.96	5.69			1.15	57.28	56.19	113.47
<b>TOTALS</b>			<b>326.46</b>	<b>43.56</b>	<b>24.21</b>	<b>15.88</b>	<b>0.00</b>	<b>12.85</b>	<b>422.96</b>	<b>88.84</b>	<b>511.80</b>

Note: Cost of production estimates are based on 2018 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, 2019

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	492.90
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	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	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	19.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	26.33	0.00	0.00	47.16	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	5.94	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	77.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.44	0.00	0.00	1.44	0.00	0.36	0.00	0.72	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	12.65	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	1.55	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	2.21	0.00	0.00	0.89	0.00	0.00	3.78	2.73	1.61	1.61	0.18	2.87
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	2.08	0.00	0.00	0.85	0.00	0.00	2.44	11.95	10.86	10.86	0.28	4.24
REPAIR & MAINTENANCE	1.42	0.00	0.00	0.38	0.00	0.00	2.68	9.32	2.96	2.96	0.08	4.41
INTEREST ON OP. CAP.	4.59	0.00	0.00	1.34	0.00	0.00	4.49	0.77	0.83	0.41	0.29	0.13
TOTAL DIRECT EXPENSES	81.04	0.00	0.00	31.23	0.00	0.00	154.39	31.50	42.37	28.28	28.19	25.96
NET INCOME	-81.04	0.00	0.00	-31.23	0.00	0.00	-154.39	-31.50	-42.37	-28.28	-28.19	466.94
NET INCOME TO DATE	-81.04	-81.04	-81.04	-112.27	-112.27	-112.27	-266.66	-298.16	-340.53	-368.81	-397.00	69.94

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-230 -319	-218 -307	-206 -295	-193 -282	-181 -270	-169 -258	-156 -245	-144 -233	-132 -221	-120 -208	-107 -196
60	31.80	bu	-195 -284	-180 -269	-165 -254	-151 -239	-136 -225	-121 -210	-106 -195	-91 -180	-77 -165	-62 -151	-47 -136
70	37.10	bu	-159 -248	-142 -231	-125 -214	-108 -196	-90 -179	-73 -162	-56 -145	-39 -127	-21 -110	-4 -93	12 -76
80	42.40	bu	-124 -213	-104 -193	-84 -173	-65 -154	-45 -134	-25 -114	-6 -94	13 -75	33 -55	53 -35	72 -16
90	47.70	bu	-88 -177	-66 -155	-44 -133	-22 -111	-0 -88	22 -66	44 -44	66 -22	88 -0	110 21	132 44
100	53.00	bu	-53 -142	-28 -117	-3 -92	20 -68	45 -43	69 -18	94 5	119 30	143 55	168 79	193 104
110	58.30	bu	-17 -106	9 -79	36 -52	63 -25	90 1	117 28	144 56	172 83	199 110	226 137	253 164
120	63.60	bu	17 -71	47 -41	76 -11	106 17	136 47	165 76	195 106	224 135	254 165	283 195	313 224
130	68.90	bu	53 -35	85 -3	117 28	149 60	181 92	213 124	245 156	277 188	309 220	341 252	373 284
140	74.20	bu	88 -0	123 34	157 68	192 103	226 138	261 172	295 207	330 241	364 276	399 310	433 345
150	79.50	bu	124 35	161 72	198 109	235 146	272 183	309 220	346 257	383 294	420 331	457 368	494 405

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 2018 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, 2019

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	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.76	6.4000	4.86	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.55	50.0000	77.50	_____
ADJUVANTS					
Surfactant	pt	3.59	0.6000	2.15	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.1171	1.66	_____
Harvesters	hour	14.23	0.1021	1.45	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL					
Tractors	gal	2.60	1.3567	3.53	_____
Harvesters	gal	2.60	1.3935	3.62	_____
1/2-mi Pivot Irr.	gal	2.60	16.4057	42.66	_____
REPAIR & MAINTENANCE					
Implements	acre	3.26	1.0000	3.26	_____
Tractors	acre	0.70	1.0000	0.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
1/2-mi Pivot Irr.	acre	11.57	1.0000	11.57	_____
INTEREST ON OP. CAP.	acre	10.42	1.0000	10.42	_____
TOTAL DIRECT EXPENSES				394.87	_____
FIXED EXPENSES					
Implements	acre	6.31	1.0000	6.31	_____
Tractors	acre	4.83	1.0000	4.83	_____
Harvesters	acre	15.52	1.0000	15.52	_____
1/2-mi Pivot Irr.	acre	47.36	1.0000	47.36	_____
TOTAL FIXED EXPENSES				74.02	_____
TOTAL SPECIFIED EXPENSES				468.89	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	50.0000	465.00	_____
				-----	
TOTAL INCOME				465.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	47.16	1.0000	47.16	_____
INSECTICIDES	acre	37.28	1.0000	37.28	_____
SEED/PLANTS	acre	77.50	1.0000	77.50	_____
ADJUVANTS	acre	2.16	1.0000	2.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.2193	3.11	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL	gal	2.60	19.1560	49.81	_____
REPAIR & MAINTENANCE	acre	19.14	1.0000	19.14	_____
INTEREST ON OP. CAP.	acre	10.42	1.0000	10.42	_____
				-----	
TOTAL DIRECT EXPENSES				394.87	_____
RETURNS ABOVE DIRECT EXPENSES				70.13	_____
TOTAL FIXED EXPENSES				74.02	_____
				-----	
TOTAL SPECIFIED EXPENSES				468.89	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-3.89	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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 2018 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, 2019

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						0.20	3.53		3.53
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus(46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Soybeans Consultant	acre	6.50						0.20	6.70		6.70
Plant & Pre-Folding	12R-30		2.04	2.35	2.40			0.17	6.96	6.93	13.89
Soybean Seed RR2X	lb	77.50						1.94	79.44		79.44
CruiserMaxx	oz	6.85						0.17	7.02		7.02
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	22.42						0.56	22.98		22.98
Gramoxone SL 2.0	oz	7.20						0.18	7.38		7.38
Surfactant	pt	1.44						0.04	1.48		1.48
Spray (Broadcast)	60'		0.85	0.38	0.88			0.04	2.15	1.43	3.58
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57		4.57
Prefix	pt	13.06						0.26	13.32		13.32
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Quadris Top SBX	oz	19.25						0.29	19.54		19.54
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Acephate 90SP	lb	5.94						0.09	6.03		6.03
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Prevathon	oz	18.48						0.28	18.76		18.76
Surfactant	pt	0.36						0.01	0.37		0.37
Bifenthrin	oz	4.86						0.07	4.93		4.93
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
Header -Soybean	25' Flex		3.62	4.50	2.70			0.05	10.87	17.00	27.87
Haul Soybeans	bu	13.50						0.07	13.57		13.57
Grain Cart Soybean	700 bu		0.64	0.34	0.56			0.01	1.55	1.30	2.85
1/2-mi Pivot Irr.	acre		42.66	11.57	0.47			1.15	55.85	47.36	103.21
TOTALS		308.49	49.81	19.14	7.01	0.00	10.42	394.87	74.02	468.89	

Note: Cost of production estimates are based on 2018 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, 2019

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	465.00
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	47.26	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	6.85	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.62	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	29.28	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.72	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	12.65	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	1.55	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	2.44	0.93	0.04	0.00	3.26
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	14.84	17.91	12.80	0.00	4.26
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.63	1.12	0.55	0.00	4.84
INTEREST ON OP. CAP.	4.25	0.00	0.00	0.00	0.00	0.00	0.21	3.68	0.75	1.25	0.15	0.13
TOTAL DIRECT EXPENSES	74.99	0.00	0.00	0.00	0.00	0.00	7.05	150.55	38.25	83.39	14.65	25.99
NET INCOME	-74.99	0.00	0.00	0.00	0.00	0.00	-7.05	-150.55	-38.25	-83.39	-14.65	439.01
NET INCOME TO DATE	-74.99	-74.99	-74.99	-74.99	-74.99	-74.99	-82.04	-232.59	-270.84	-354.23	-368.88	70.13

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-213 -287	-202 -276	-190 -264	-178 -252	-167 -241	-155 -229	-143 -217	-132 -206	-120 -194	-109 -183	-97 -171
60	30.00	bu	-180 -254	-166 -240	-152 -226	-138 -212	-124 -198	-110 -184	-96 -170	-82 -156	-68 -142	-54 -128	-40 -114
70	35.00	bu	-146 -220	-130 -204	-114 -188	-97 -171	-81 -155	-65 -139	-49 -123	-32 -106	-16 -90	-0 -74	16 -57
80	40.00	bu	-113 -187	-94 -168	-75 -149	-57 -131	-38 -112	-20 -94	-1 -75	17 -56	35 -38	54 -19	72 -1
90	45.00	bu	-79 -153	-58 -132	-37 -111	-16 -90	4 -69	24 -49	45 -28	66 -7	87 13	108 34	129 55
100	50.00	bu	-46 -120	-22 -96	0 -73	23 -50	46 -27	70 -3	93 19	116 42	139 65	163 89	186 112
110	55.00	bu	-12 -86	12 -61	38 -35	64 -9	89 15	115 41	140 66	166 92	191 117	217 143	243 169
120	60.00	bu	20 -53	48 -25	76 2	104 30	132 58	160 86	188 114	216 142	244 170	272 197	299 225
130	65.00	bu	54 -19	84 10	114 40	145 71	175 101	205 131	235 161	266 191	296 222	326 252	356 282
140	70.00	bu	87 13	120 46	153 79	185 111	218 144	250 176	283 209	315 241	348 274	380 306	413 339
150	75.00	bu	121 47	156 82	191 117	226 152	260 186	295 221	330 256	365 291	400 326	435 361	470 396

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 2018 input prices.

Table 12.A Estimated costs per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	23.75	0.6600	15.68	_____
Potash (60% K2O)	cwt	20.00	1.0000	20.00	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.55	50.0000	77.50	_____
ADJUVANTS					
Surfactant	pt	3.59	0.6000	2.15	_____
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	38.00	0.3330	12.65	_____
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	14.23	0.3128	4.44	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR					
	hour	14.24	0.3734	5.32	_____
DIESEL FUEL					
Tractors	gal	2.60	3.0592	7.96	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	4.75	1.0000	4.75	_____
Tractors	acre	1.70	1.0000	1.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	9.43	1.0000	9.43	_____
TOTAL DIRECT EXPENSES				289.28	_____
FIXED EXPENSES					
Implements	acre	10.48	1.0000	10.48	_____
Tractors	acre	11.82	1.0000	11.82	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				37.82	_____
TOTAL SPECIFIED EXPENSES				327.10	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	43.0000	399.90	_____
				-----	
TOTAL INCOME				399.90	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.00	1.0000	13.00	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	35.68	1.0000	35.68	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	60.92	1.0000	60.92	_____
INSECTICIDES	acre	5.94	1.0000	5.94	_____
SEED/PLANTS	acre	77.50	1.0000	77.50	_____
ADJUVANTS	acre	2.16	1.0000	2.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
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	14.23	0.4149	5.89	_____
UNALLOCATED LABOR	hour	14.24	0.3734	5.32	_____
DIESEL FUEL	gal	2.60	4.4528	11.58	_____
REPAIR & MAINTENANCE	acre	10.06	1.0000	10.06	_____
INTEREST ON OP. CAP.	acre	9.43	1.0000	9.43	_____
				-----	
TOTAL DIRECT EXPENSES				289.28	_____
RETURNS ABOVE DIRECT EXPENSES				110.62	_____
TOTAL FIXED EXPENSES				37.82	_____
				-----	
TOTAL SPECIFIED EXPENSES				327.10	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				72.80	_____

Note: Cost of production estimates are based on 2018 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, 2019

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 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
<b>TOTALS</b>							<b>0.41</b>	<b>0.41</b>	<b>0.52</b>	<b>0.37</b>

Note: Cost of production estimates are based on 2018 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, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus(46% P2O5)	cwt	15.68						0.94	16.62	16.62
Potash (60% K2O)	cwt	20.00						1.20	21.20	21.20
Disk Harrow	24'		2.08	1.42	2.21			0.34	6.05	5.36
Field Cultivate Fld	24'		1.58	0.78	1.69			0.24	4.29	4.43
App by Air ( 5 gal)	appl	6.50						0.23	6.73	6.73
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64	4.64
2,4-D Amine 4	pt	4.80						0.17	4.97	4.97
Plant - Folding	12R-30		1.60	1.95	2.27			0.17	5.99	5.79
Soybean Seed RR2X	lb	77.50						2.32	79.82	79.82
CruiserMaxx	oz	6.85						0.21	7.06	7.06
Boundary	pt	22.42						0.67	23.09	23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42	7.42
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Prefix	pt	13.06						0.33	13.39	13.39
Soybeans Consultant	acre	6.50						0.16	6.66	6.66
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59	4.59
Spray (Broadcast)	60'		0.72	0.36	0.89			0.02	1.99	1.34
Acephate 90SP	lb	5.94						0.06	6.00	6.00
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.72						0.01	0.73	0.73
Header -Soybean	25' Flex		3.62	4.50	2.76			0.05	10.93	17.00
Haul Soybeans	bu	11.61						0.06	11.67	11.67
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22
TOTALS		246.04	11.58	10.06	12.17	0.00	9.43	289.28	37.82	327.10

Note: Cost of production estimates are based on 2018 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, 2019

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	399.90
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	35.68	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.28	29.62	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	5.94	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	77.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.72	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	12.65	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	3.90	0.00	0.00	0.00	0.00	0.00	2.27	1.78	0.00	0.00	0.89	3.33
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	3.66	0.00	0.00	0.00	0.00	0.00	1.60	1.44	0.00	0.00	0.72	4.16
REPAIR & MAINTENANCE	2.20	0.00	0.00	0.00	0.00	0.00	1.95	0.72	0.00	0.00	0.36	4.83
INTEREST ON OP. CAP.	4.13	0.00	0.00	0.00	0.00	0.56	3.63	0.81	0.00	0.00	0.18	0.12
TOTAL DIRECT EXPENSES	73.05	0.00	0.00	0.00	0.00	16.34	124.86	33.27	0.00	0.00	17.71	24.05
NET INCOME	-73.05	0.00	0.00	0.00	0.00	-16.34	-124.86	-33.27	0.00	0.00	-17.71	375.85
NET INCOME TO DATE	-73.05	-73.05	-73.05	-73.05	-73.05	-89.39	-214.25	-247.52	-247.52	-247.52	-265.23	110.62

Note: Cost of production estimates are based on 2018 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 12.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, RR2X, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2019

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	-----dollars-----										
50	21.50	bu	-133 -171	-123 -161	-113 -151	-103 -141	-93 -131	-83 -121	-73 -111	-63 -101	-53 -91	-43 -81	-33 -71
60	25.80	bu	-104 -142	-92 -130	-80 -118	-68 -106	-56 -94	-44 -82	-32 -70	-20 -58	-8 -46	3 -34	15 -22
70	30.10	bu	-75 -113	-61 -99	-47 -85	-33 -71	-19 -57	-5 -43	8 -29	22 -15	36 -1	50 12	64 26
80	34.40	bu	-47 -84	-31 -68	-15 -52	0 -36	16 -20	32 -4	48 11	64 27	80 43	96 59	112 75
90	38.70	bu	-18 -56	-0 -38	17 -20	35 -2	53 15	71 33	89 51	107 69	125 87	143 105	161 123
100	43.00	bu	10 -27	30 -7	50 12	70 32	90 52	110 72	130 92	150 112	170 132	190 152	210 172
110	47.30	bu	39 1	61 23	83 45	105 67	127 89	149 111	171 133	193 155	215 177	237 199	259 221
120	51.60	bu	68 30	92 54	116 78	140 102	164 126	188 150	212 174	236 198	260 222	284 246	308 270
130	55.90	bu	97 59	123 85	149 111	175 137	201 163	227 189	253 215	279 241	305 267	331 293	357 319
140	60.20	bu	125 88	153 116	181 144	209 172	237 200	265 228	293 256	321 284	349 312	377 340	405 368
150	64.50	bu	154 116	184 146	214 176	244 206	274 236	304 266	334 296	364 326	394 356	424 386	454 416

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 2018 input prices.

Table 13.A Estimated costs per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	23.75	0.6600	15.68	_____
Potash (60% K2O)	cwt	20.00	1.0000	20.00	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	12.71	1.0000	12.71	_____
Fierce	oz	7.54	3.5000	26.39	_____
Gramoxone SL 2.0	oz	0.15	96.0000	14.40	_____
Boundary	pt	11.21	2.0000	22.42	_____
Prefix	pt	6.53	2.0000	13.06	_____
INSECTICIDES					
Dimilin 2L	oz	2.13	1.0000	2.13	_____
Baythroid XL	oz	2.65	1.0650	2.82	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.55	50.0000	77.50	_____
ADJUVANTS					
Surfactant	pt	3.59	1.4500	5.21	_____
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	38.00	0.3330	12.65	_____
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	14.23	0.4365	6.20	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.1382	1.25	_____
UNALLOCATED LABOR	hour	14.23	0.4848	6.90	_____
DIESEL FUEL					
Tractors	gal	2.60	4.3820	11.40	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	5.96	1.0000	5.96	_____
Tractors	acre	2.41	1.0000	2.41	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	8.78	1.0000	8.78	_____
TOTAL DIRECT EXPENSES				333.88	_____
FIXED EXPENSES					
Implements	acre	13.08	1.0000	13.08	_____
Tractors	acre	16.72	1.0000	16.72	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				45.32	_____
TOTAL SPECIFIED EXPENSES				379.20	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	40.0000	372.00	_____
				-----	
TOTAL INCOME				372.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	35.68	1.0000	35.68	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	102.42	1.0000	102.42	_____
INSECTICIDES	acre	4.95	1.0000	4.95	_____
SEED/PLANTS	acre	77.50	1.0000	77.50	_____
ADJUVANTS	acre	5.22	1.0000	5.22	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1382	1.25	_____
OPERATOR LABOR	hour	14.23	0.5387	7.65	_____
UNALLOCATED LABOR	hour	14.23	0.4848	6.90	_____
DIESEL FUEL	gal	2.60	5.7756	15.02	_____
REPAIR & MAINTENANCE	acre	11.98	1.0000	11.98	_____
INTEREST ON OP. CAP.	acre	8.78	1.0000	8.78	_____
				-----	
TOTAL DIRECT EXPENSES				333.88	_____
RETURNS ABOVE DIRECT EXPENSES				38.12	_____
TOTAL FIXED EXPENSES				45.32	_____
				-----	
TOTAL SPECIFIED EXPENSES				379.20	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-7.20	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
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	
Bed/Lister-Roll-Fold	12R-30	MFWD 225	0.062	1.00	Oct		0.06	0.06	0.05	
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Feb		0.02	0.02	0.04	
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	
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	
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	
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	
Glyphosate 3lbs a.e	oz					32.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Jul		0.01	0.01	0.02	
Dimilin 2L	oz					1.0000				
Surfactant	pt					0.0500				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Aug		0.01	0.01	0.02	
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	0.09	
Haul Soybeans	bu					40.0000				
Grain Cart Soybean	700 bu	MFWD 190	0.021	1.00	Oct		0.02	0.02	0.01	
TOTALS							0.53	0.53	0.67	0.48

Note: Cost of production estimates are based on 2018 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, 2019

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						0.02	3.35		3.35
Lime (Spread)	ton	12.65						0.06	12.71		12.71
Disk Harrow	24'		2.08	1.42	2.21			0.03	5.74	5.36	11.10
Field Cultivate Fld	24'		1.58	0.78	1.69			0.02	4.07	4.43	8.50
Bed/Lister-Roll-Fold	12R-30		1.88	0.83	1.69			0.02	4.42	3.91	8.33
Spray (Broadcast)	60'		0.72	0.36	0.89			0.09	2.06	1.34	3.40
Glyphosate 3lbs a.e	oz	4.48						0.20	4.68		4.68
Select Max	pt	12.71						0.57	13.28		13.28
Surfactant	pt	1.44						0.06	1.50		1.50
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	15.68						0.55	16.23		16.23
Potash (60% K2O)	cwt	20.00						0.70	20.70		20.70
Spray (Broadcast)	60'		0.72	0.36	0.89			0.07	2.04	1.34	3.38
Fierce	oz	26.39						0.92	27.31		27.31
Gramoxone SL 2.0	oz	7.20						0.25	7.45		7.45
Surfactant	pt	1.44						0.05	1.49		1.49
Soybeans Consultant	acre	6.50						0.20	6.70		6.70
Plant & Pre-Folding	12R-30		1.72	2.32	2.44			0.19	6.67	6.70	13.37
Soybean Seed RR2X	lb	77.50						2.32	79.82		79.82
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.06	2.03	1.34	3.37
Glyphosate 3lbs a.e	oz	4.48						0.13	4.61		4.61
Prefix	pt	13.06						0.39	13.45		13.45
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34	3.36
Glyphosate 3lbs a.e	oz	4.48						0.11	4.59		4.59
Spray (Broadcast)	60'		0.36	0.18	0.44			0.02	1.00	0.67	1.67
Dimilin 2L	oz	2.13						0.04	2.17		2.17
Surfactant	pt	0.18							0.18		0.18
Spray (Broadcast)	60'		0.36	0.18	0.44			0.01	0.99	0.67	1.66
Baythroid XL	oz	2.82						0.04	2.86		2.86
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	25' Flex		3.62	4.50	2.76			0.05	10.93	17.00	27.93
Haul Soybeans	bu	10.80						0.05	10.85		10.85
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22	2.67
TOTALS		282.30	15.02	11.98	15.80	0.00	8.78	333.88	45.32	379.20	

Note: Cost of production estimates are based on 2018 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, 2019

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	372.00
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	35.68	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	17.19	0.00	33.59	47.16	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	2.13	2.82	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	77.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.44	0.00	1.44	1.44	0.00	0.18	0.00	0.72	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	12.65
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	0.89	0.00	0.89	3.33	0.89	0.44	0.44	0.00	8.92
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	0.72	0.00	0.72	2.44	0.72	0.36	0.36	0.00	9.70
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.36	0.00	0.36	2.68	0.36	0.18	0.18	0.00	7.86
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.92	0.00	2.80	4.43	0.16	0.06	0.05	0.10	0.26
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	21.52	0.00	82.98	152.33	6.61	3.35	3.85	9.72	53.52
NET INCOME	0.00	0.00	0.00	-21.52	0.00	-82.98	-152.33	-6.61	-3.35	-3.85	-9.72	318.48
NET INCOME TO DATE	0.00	0.00	0.00	-21.52	-21.52	-104.50	-256.83	-263.44	-266.79	-270.64	-280.36	38.12

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-188	-179	-170	-161	-151	-142	-133	-123	-114	-105	-95
			-234	-224	-215	-206	-197	-187	-178	-169	-159	-150	-141
60	24.00	bu	-162	-150	-139	-128	-117	-106	-95	-84	-72	-61	-50
			-207	-196	-185	-173	-162	-151	-140	-129	-118	-107	-95
70	28.00	bu	-135	-122	-109	-96	-83	-70	-57	-44	-31	-18	-5
			-180	-167	-154	-141	-128	-115	-102	-89	-76	-63	-50
80	32.00	bu	-108	-93	-78	-63	-48	-34	-19	-4	10	25	40
			-153	-138	-124	-109	-94	-79	-64	-49	-34	-19	-5
90	36.00	bu	-81	-64	-48	-31	-14	2	18	35	52	68	85
			-127	-110	-93	-76	-60	-43	-26	-9	6	23	40
100	40.00	bu	-54	-36	-17	0	19	38	56	75	93	112	131
			-100	-81	-63	-44	-25	-7	11	30	48	67	85
110	44.00	bu	-28	-7	12	33	53	74	94	115	135	156	176
			-73	-52	-32	-12	8	28	49	69	90	110	131
120	48.00	bu	-1	21	43	65	88	110	132	154	177	199	221
			-46	-24	-1	20	42	65	87	109	131	154	176
130	52.00	bu	25	49	73	98	122	146	170	194	219	243	267
			-19	4	28	52	76	101	125	149	173	197	222
140	56.00	bu	52	78	104	130	156	182	208	234	260	286	312
			7	33	59	85	111	137	163	189	215	241	267
150	60.00	bu	79	107	134	162	190	218	246	274	302	330	358
			33	61	89	117	145	173	201	229	257	284	312

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 2018 input prices.

Table 14.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2019

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	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
HERBICIDES					
Boundary	pt	11.21	2.0000	22.42	_____
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	7.92	0.7500	5.94	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.76	6.4000	4.86	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.55	50.0000	77.50	_____
ADJUVANTS					
Surfactant	pt	3.59	0.5000	1.80	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.1171	1.66	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR					
	hour	14.26	0.1886	2.69	_____
DIESEL FUEL					
Tractors	gal	2.60	1.3567	3.53	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	3.26	1.0000	3.26	_____
Tractors	acre	0.70	1.0000	0.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	8.83	1.0000	8.83	_____
TOTAL DIRECT EXPENSES				305.72	_____
FIXED EXPENSES					
Implements	acre	6.31	1.0000	6.31	_____
Tractors	acre	4.83	1.0000	4.83	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				26.66	_____
TOTAL SPECIFIED EXPENSES				332.38	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	25.0000	232.50	_____
				-----	
TOTAL INCOME				232.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	47.16	1.0000	47.16	_____
INSECTICIDES	acre	37.28	1.0000	37.28	_____
SEED/PLANTS	acre	77.50	1.0000	77.50	_____
ADJUVANTS	acre	1.80	1.0000	1.80	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
OPERATOR LABOR	hour	14.23	0.2193	3.11	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL	gal	2.60	2.7503	7.15	_____
REPAIR & MAINTENANCE	acre	7.57	1.0000	7.57	_____
INTEREST ON OP. CAP.	acre	8.83	1.0000	8.83	_____
				-----	
TOTAL DIRECT EXPENSES				305.72	_____
RETURNS ABOVE DIRECT EXPENSES				-73.22	_____
TOTAL FIXED EXPENSES				26.66	_____
				-----	
TOTAL SPECIFIED EXPENSES				332.38	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-99.88	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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 2018 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, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus(46% P2O5)	cwt	20.66						1.24	21.90	21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20	28.20
Soybeans Consulting	acre	6.50						0.20	6.70	6.70
Plant & Pre-Folding	12R-30		2.04	2.35	2.40			0.17	6.96	6.93
Soybean Seed RR2X	lb	77.50						1.94	79.44	79.44
CruiserMaxx	oz	6.85						0.17	7.02	7.02
Inoculant -Soybean	acre	1.55						0.04	1.59	1.59
Boundary	pt	22.42						0.56	22.98	22.98
Gramoxone SL 2.0	oz	7.20						0.18	7.38	7.38
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.85	0.38	0.88			0.04	2.15	1.43
Glyphosate 3lbs a.e	oz	4.48						0.09	4.57	4.57
Prefix	pt	13.06						0.26	13.32	13.32
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Acephate 90SP	lb	5.94						0.09	6.03	6.03
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Prevathon	oz	18.48						0.28	18.76	18.76
Surfactant	pt	0.36						0.01	0.37	0.37
Bifenthrin	oz	4.86						0.07	4.93	4.93
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08	8.08
Header -Soybean	25' Flex		3.62	4.50	2.70			0.05	10.87	17.00
Haul Soybeans	bu	6.75						0.03	6.78	6.78
Grain Cart Soybean	700 bu		0.64	0.34	0.56			0.01	1.55	1.30
TOTALS		275.63	7.15	7.57	6.54	0.00	8.83	305.72	26.66	332.38

Note: Cost of production estimates are based on 2018 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, 2019

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	232.50
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	47.26	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	6.85	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.62	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	29.28	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.36	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	12.65	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	1.55	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	2.40	0.88	0.00	0.00	3.26
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	2.04	0.85	0.00	0.00	4.26
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	0.38	0.00	0.00	4.84
INTEREST ON OP. CAP.	4.25	0.00	0.00	0.00	0.00	0.00	0.20	3.10	0.39	0.65	0.15	0.09
TOTAL DIRECT EXPENSES	74.99	0.00	0.00	0.00	0.00	0.00	6.70	126.85	20.04	43.29	14.65	19.20
NET INCOME	-74.99	0.00	0.00	0.00	0.00	0.00	-6.70	-126.85	-20.04	-43.29	-14.65	213.30
NET INCOME TO DATE	-74.99	-74.99	-74.99	-74.99	-74.99	-74.99	-81.69	-208.54	-228.58	-271.87	-286.52	-73.22

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-215 -241	-209 -235	-203 -230	-197 -224	-191 -218	-186 -212	-180 -206	-174 -201	-168 -195	-162 -189	-157 -183
60	15.00	bu	-198 -225	-191 -218	-184 -211	-177 -204	-170 -197	-163 -190	-156 -183	-149 -176	-142 -169	-135 -162	-128 -155
70	17.50	bu	-181 -208	-173 -200	-165 -192	-157 -183	-149 -175	-140 -167	-132 -159	-124 -151	-116 -143	-108 -135	-100 -126
80	20.00	bu	-164 -191	-155 -182	-146 -172	-136 -163	-127 -154	-118 -145	-109 -135	-99 -126	-90 -117	-81 -107	-71 -98
90	22.50	bu	-148 -174	-137 -164	-127 -153	-116 -143	-106 -132	-95 -122	-85 -111	-74 -101	-64 -91	-53 -80	-43 -70
100	25.00	bu	-131 -158	-119 -146	-108 -134	-96 -123	-84 -111	-73 -99	-61 -88	-49 -76	-38 -65	-26 -53	-15 -41
110	27.50	bu	-114 -141	-101 -128	-89 -115	-76 -102	-63 -90	-50 -77	-37 -64	-25 -51	-12 -38	0 -26	13 -13
120	30.00	bu	-97 -124	-83 -110	-69 -96	-55 -82	-42 -68	-28 -54	-14 -40	-0 -26	13 -12	27 1	41 15
130	32.50	bu	-81 -107	-65 -92	-50 -77	-35 -62	-20 -47	-5 -32	9 -17	24 -1	39 13	54 28	70 43
140	35.00	bu	-64 -90	-48 -74	-31 -58	-15 -42	0 -25	17 -9	33 6	49 22	65 39	82 55	98 71
150	37.50	bu	-47 -74	-30 -56	-12 -39	4 -21	22 -4	39 12	57 30	74 47	91 65	109 82	126 100

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 2018 input prices.

Table 15.A Estimated costs per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.59	58.0000	34.22	_____
Dual Magnum	pt	13.81	1.0000	13.81	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.42	50.0000	71.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.0000	3.59	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.3302	4.69	_____
Harvesters	hour	14.23	0.0851	1.21	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR	hour	14.22	0.3738	5.32	_____
DIESEL FUEL					
Tractors	gal	2.60	3.8252	9.94	_____
Harvesters	gal	2.60	1.4243	3.70	_____
REPAIR & MAINTENANCE					
Implements	acre	4.94	1.0000	4.94	_____
Tractors	acre	1.97	1.0000	1.97	_____
Harvesters	acre	3.21	1.0000	3.21	_____
INTEREST ON OP. CAP.	acre	12.47	1.0000	12.47	_____
TOTAL DIRECT EXPENSES				387.84	_____
FIXED EXPENSES					
Implements	acre	11.12	1.0000	11.12	_____
Tractors	acre	13.61	1.0000	13.61	_____
Harvesters	acre	13.81	1.0000	13.81	_____
TOTAL FIXED EXPENSES				38.54	_____
TOTAL SPECIFIED EXPENSES				426.38	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	42.0000	390.60	_____
				-----	
TOTAL INCOME				390.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	122.36	1.0000	122.36	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
SEED/PLANTS	acre	71.00	1.0000	71.00	_____
ADJUVANTS	acre	3.60	1.0000	3.60	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0959	0.87	_____
OPERATOR LABOR	hour	14.23	0.4154	5.90	_____
UNALLOCATED LABOR	hour	14.22	0.3738	5.32	_____
DIESEL FUEL	gal	2.60	5.2496	13.64	_____
REPAIR & MAINTENANCE	acre	10.12	1.0000	10.12	_____
INTEREST ON OP. CAP.	acre	12.47	1.0000	12.47	_____
				-----	
TOTAL DIRECT EXPENSES				387.84	_____
RETURNS ABOVE DIRECT EXPENSES				2.76	_____
TOTAL FIXED EXPENSES				38.54	_____
				-----	
TOTAL SPECIFIED EXPENSES				426.38	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-35.78	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
Incidental Pest				1.00	Aug					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
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>							<b>0.41</b>	<b>0.41</b>	<b>0.51</b>	<b>0.37</b>

Note: Cost of production estimates are based on 2018 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, 2019

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						0.20	3.53		3.53
Subsoiler	3 shank		1.23	0.32	1.10			0.16	2.81	1.90	4.71
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Disk Harrow	24'		2.46	1.46	2.21			0.37	6.50	5.64	12.14
Field Cultivate Fld	24'		1.87	0.81	1.69			0.26	4.63	4.65	9.28
App by Air ( 5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Select Max	pt	12.71						0.51	13.22		13.22
Valor SX	oz	9.14						0.37	9.51		9.51
Surfactant	pt	1.44						0.06	1.50		1.50
Plant & Pre-Folding	12R-30		2.04	2.35	2.44			0.20	7.03	6.93	13.96
Soybean Seed LL	lb	71.00						2.13	73.13		73.13
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Soybeans Consultant	acre	6.50						0.16	6.66		6.66
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Liberty 280	oz	17.11						0.43	17.54		17.54
Dual Magnum	pt	13.81						0.35	14.16		14.16
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Liberty 280	oz	17.11						0.43	17.54		17.54
Zidua	oz	13.58						0.34	13.92		13.92
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Acephate 90SP	lb	5.94						0.06	6.00		6.00
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	11.34						0.06	11.40		11.40
Grain Cart Soybean	700 bu		0.64	0.34	0.57			0.01	1.56	1.30	2.86
TOTALS		339.52	13.64	10.12	12.09	0.00	12.47	387.84	38.54	426.38	

Note: Cost of production estimates are based on 2018 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, 2019

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	390.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	19.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.13	0.00	29.62	61.61	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	13.94	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.44	0.00	1.44	0.00	0.00	0.00	0.72	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	12.65	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	1.55	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	5.00	0.00	0.00	0.00	0.00	0.00	2.44	1.78	0.00	0.00	0.00	2.87
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	5.56	0.00	0.00	0.00	0.00	0.00	2.04	1.70	0.00	0.00	0.00	4.34
REPAIR & MAINTENANCE	2.59	0.00	0.00	0.00	0.00	0.00	2.35	0.76	0.00	0.00	0.00	4.42
INTEREST ON OP. CAP.	5.04	0.00	0.00	0.00	1.57	0.00	3.52	1.81	0.00	0.00	0.41	0.12
TOTAL DIRECT EXPENSES	88.93	0.00	0.00	0.00	40.64	0.00	120.81	74.16	0.00	0.00	40.21	23.09
NET INCOME	-88.93	0.00	0.00	0.00	-40.64	0.00	-120.81	-74.16	0.00	0.00	-40.21	367.51
NET INCOME TO DATE	-88.93	-88.93	-88.93	-88.93	-129.57	-129.57	-250.38	-324.54	-324.54	-324.54	-364.75	2.76

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-235 -274	-225 -264	-216 -254	-206 -244	-196 -235	-186 -225	-177 -215	-167 -205	-157 -196	-147 -186	-138 -176
60	25.20	bu	-207 -246	-195 -234	-184 -222	-172 -210	-160 -199	-148 -187	-137 -175	-125 -164	-113 -152	-102 -140	-90 -128
70	29.40	bu	-179 -217	-165 -204	-152 -190	-138 -176	-124 -163	-111 -149	-97 -135	-83 -122	-69 -108	-56 -94	-42 -81
80	33.60	bu	-151 -189	-135 -174	-119 -158	-104 -142	-88 -127	-73 -111	-57 -95	-41 -80	-26 -64	-10 -49	5 -33
90	37.80	bu	-123 -161	-105 -144	-87 -126	-70 -108	-52 -91	-35 -73	-17 -56	-0 -38	17 -20	35 -3	52 14
100	42.00	bu	-94 -133	-75 -113	-55 -94	-36 -74	-16 -55	2 -35	22 -16	41 3	61 22	80 42	100 61
110	46.20	bu	-66 -105	-45 -83	-23 -62	-2 -40	19 -19	40 2	62 23	83 45	105 66	126 88	148 109
120	50.40	bu	-38 -77	-15 -53	8 -30	31 -6	55 16	78 40	102 63	125 86	148 110	172 133	195 157
130	54.60	bu	-10 -48	14 -23	40 1	65 27	91 52	116 77	141 103	167 128	192 154	218 179	243 204
140	58.80	bu	17 -20	45 6	72 33	99 61	127 88	154 115	181 143	209 170	236 197	263 225	291 252
150	63.00	bu	45 7	75 36	104 65	133 95	163 124	192 153	221 183	250 212	280 241	309 271	338 300

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 2018 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, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.59	58.0000	34.22	_____
Dual Magnum	pt	13.81	1.0000	13.81	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.42	50.0000	71.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.1000	3.95	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.4713	6.70	_____
Harvesters	hour	14.23	0.0851	1.21	_____
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	14.22	0.4301	6.12	_____
DIESEL FUEL					
Tractors	gal	2.60	5.2753	13.70	_____
Harvesters	gal	2.60	1.4243	3.70	_____
Roll-Out Pipe Irr.	gal	2.60	7.3316	19.05	_____
REPAIR & MAINTENANCE					
Implements	acre	5.60	1.0000	5.60	_____
Tractors	acre	2.74	1.0000	2.74	_____
Harvesters	acre	3.21	1.0000	3.21	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	13.98	1.0000	13.98	_____
				-----	
TOTAL DIRECT EXPENSES				465.81	_____
FIXED EXPENSES					
Implements	acre	13.59	1.0000	13.59	_____
Tractors	acre	18.92	1.0000	18.92	_____
Harvesters	acre	13.81	1.0000	13.81	_____
Roll-Out Pipe Irr.	acre	61.50	1.0000	61.50	_____
				-----	
TOTAL FIXED EXPENSES				107.82	_____
				-----	
TOTAL SPECIFIED EXPENSES				573.63	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	60.0000	558.00	_____
				-----	
TOTAL INCOME				558.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	32.50	1.0000	32.50	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	122.36	1.0000	122.36	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	71.00	1.0000	71.00	_____
ADJUVANTS	acre	3.96	1.0000	3.96	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.5564	7.91	_____
UNALLOCATED LABOR	hour	14.22	0.4301	6.12	_____
DIESEL FUEL	gal	2.60	14.0313	36.45	_____
REPAIR & MAINTENANCE	acre	18.44	1.0000	18.44	_____
INTEREST ON OP. CAP.	acre	13.98	1.0000	13.98	_____
				-----	
TOTAL DIRECT EXPENSES				465.81	_____
RETURNS ABOVE DIRECT EXPENSES				92.19	_____
				-----	
TOTAL FIXED EXPENSES				107.82	_____
				-----	
TOTAL SPECIFIED EXPENSES				573.63	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-15.63	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
Incidental Pest				1.00	Aug					
App by Air ( 5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
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							0.55	0.55	1.01	0.43

Note: Cost of production estimates are based on 2018 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, 2019

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						0.20	3.53		3.53
Subsoiler	3 shank		1.23	0.32	1.10			0.16	2.81	1.90	4.71
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus(46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Disk Harrow	24'		2.46	1.46	2.21			0.37	6.50	5.64	12.14
Field Cultivate Fld	24'		1.87	0.81	1.69			0.26	4.63	4.65	9.28
Bed/Lister-Roll-Fold	12R-30		1.88	0.83	1.69			0.26	4.66	3.91	8.57
App by Air ( 5 gal)	appl	6.50						0.26	6.76		6.76
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
2,4-D Amine 4	pt	4.80						0.19	4.99		4.99
Select Max	pt	12.71						0.51	13.22		13.22
Valor SX	oz	9.14						0.37	9.51		9.51
Surfactant	pt	1.44						0.06	1.50		1.50
Plant & Pre-Folding	12R-30		2.04	2.35	2.44			0.20	7.03	6.93	13.96
Soybean Seed LL	lb	71.00						2.13	73.13		73.13
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Soybeans Consultant	acre	6.50						0.16	6.66		6.66
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Liberty 280	oz	17.11						0.43	17.54		17.54
Dual Magnum	pt	13.81						0.35	14.16		14.16
Spray (Broadcast)	60'		0.85	0.38	0.89			0.05	2.17	1.43	3.60
Liberty 280	oz	17.11						0.43	17.54		17.54
Zidua	oz	13.58						0.34	13.92		13.92
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Quadris Top SBX	oz	19.25						0.29	19.54		19.54
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Acephate 90SP	lb	5.94						0.06	6.00		6.00
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	16.20						0.08	16.28		16.28
Grain Cart Soybean	700 bu		0.64	0.34	0.57			0.01	1.56	1.30	2.86
Roll-Out Pipe Irr.	acre	8.25	20.93	7.49	4.42			0.83	41.92	65.37	107.29
TOTALS		378.74	36.45	18.44	18.20	0.00	13.98	465.81	107.82	573.63	

Note: Cost of production estimates are based on 2018 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, 2019

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	558.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	6.50	19.50	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	31.13	0.00	29.62	61.61	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	13.94	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	71.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.44	0.00	1.44	0.00	0.00	0.36	0.72	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	12.65	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	1.55	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	7.23	0.00	0.00	0.00	0.00	0.00	2.44	2.01	2.81	0.23	0.00	3.48
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	8.40	0.00	0.00	0.00	0.00	0.00	2.04	1.70	13.19	6.35	0.00	4.77
REPAIR & MAINTENANCE	3.74	0.00	0.00	0.00	0.00	0.00	2.35	0.76	5.73	1.31	0.00	4.55
INTEREST ON OP. CAP.	5.41	0.00	0.00	0.00	1.57	0.00	3.52	1.82	0.59	0.51	0.41	0.15
TOTAL DIRECT EXPENSES	95.52	0.00	0.00	0.00	40.64	0.00	120.81	74.40	30.57	34.51	40.21	29.15
NET INCOME	-95.52	0.00	0.00	0.00	-40.64	0.00	-120.81	-74.40	-30.57	-34.51	-40.21	528.85
NET INCOME TO DATE	-95.52	-95.52	-95.52	-95.52	-136.16	-136.16	-256.97	-331.37	-361.94	-396.45	-436.66	92.19

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	30.00	bu	-248 -356	-234 -342	-220 -328	-206 -314	-192 -300	-178 -286	-164 -272	-150 -258	-136 -244	-122 -230	-108 -216
60	36.00	bu	-208 -316	-191 -299	-174 -282	-157 -265	-141 -249	-124 -232	-107 -215	-91 -198	-74 -182	-57 -165	-40 -148
70	42.00	bu	-167 -275	-148 -256	-128 -236	-109 -217	-89 -197	-70 -178	-50 -158	-31 -139	-11 -119	7 -100	27 -80
80	48.00	bu	-127 -235	-105 -213	-83 -190	-60 -168	-38 -146	-16 -123	6 -101	28 -79	50 -57	73 -34	95 -12
90	54.00	bu	-87 -195	-62 -170	-37 -145	-12 -120	12 -94	38 -69	63 -44	88 -19	113 5	138 30	163 55
100	60.00	bu	-47 -155	-19 -127	8 -99	36 -71	64 -43	92 -15	120 12	147 40	175 68	203 95	231 123
110	66.00	bu	-7 -114	23 -84	54 -53	84 -22	115 7	146 38	177 69	207 99	238 130	269 161	299 191
120	72.00	bu	33 -74	66 -41	100 -7	133 25	167 59	200 92	234 126	267 159	300 193	334 226	367 260
130	78.00	bu	73 -34	109 1	145 38	182 74	218 110	254 146	290 183	327 219	363 255	399 291	436 328
140	84.00	bu	113 5	152 44	191 83	230 122	269 161	308 201	347 240	386 279	426 318	465 357	504 396
150	90.00	bu	153 45	195 87	237 129	279 171	321 213	363 255	404 297	446 338	488 380	530 422	572 464

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 2018 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, 2019

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	5.40	0.6000	3.24	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	12.71	1.0000	12.71	_____
Valor SX	oz	4.57	2.0000	9.14	_____
Boundary	pt	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.59	58.0000	34.22	_____
Dual Magnum	pt	13.81	1.0000	13.81	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.42	50.0000	71.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.1000	3.95	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.4582	6.49	_____
Harvesters	hour	14.23	0.0851	1.21	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR					
	hour	14.22	0.3065	4.36	_____
DIESEL FUEL					
Tractors	gal	2.60	4.3236	11.27	_____
Harvesters	gal	2.60	1.4243	3.70	_____
Contour Flood Irr.	gal	2.60	10.9974	28.59	_____
REPAIR & MAINTENANCE					
Implements	acre	4.85	1.0000	4.85	_____
Tractors	acre	2.35	1.0000	2.35	_____
Harvesters	acre	3.21	1.0000	3.21	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	13.72	1.0000	13.72	_____
TOTAL DIRECT EXPENSES				456.92	_____
FIXED EXPENSES					
Implements	acre	10.31	1.0000	10.31	_____
Tractors	acre	16.21	1.0000	16.21	_____
Harvesters	acre	13.81	1.0000	13.81	_____
Contour Flood Irr.	acre	48.51	1.0000	48.51	_____
TOTAL FIXED EXPENSES				88.84	_____
TOTAL SPECIFIED EXPENSES				545.76	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	53.0000	492.90	_____
				-----	
TOTAL INCOME				492.90	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
HARVEST AIDS	acre	5.64	1.0000	5.64	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	117.56	1.0000	117.56	_____
INSECTICIDES	acre	13.94	1.0000	13.94	_____
SEED/PLANTS	acre	71.00	1.0000	71.00	_____
ADJUVANTS	acre	3.96	1.0000	3.96	_____
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	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.5433	7.70	_____
UNALLOCATED LABOR	hour	14.22	0.3065	4.36	_____
DIESEL FUEL	gal	2.60	16.7455	43.56	_____
REPAIR & MAINTENANCE	acre	24.21	1.0000	24.21	_____
INTEREST ON OP. CAP.	acre	13.72	1.0000	13.72	_____
				-----	
TOTAL DIRECT EXPENSES				456.92	_____
RETURNS ABOVE DIRECT EXPENSES				35.98	_____
TOTAL FIXED EXPENSES				88.84	_____
				-----	
TOTAL SPECIFIED EXPENSES				545.76	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-52.86	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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				
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	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
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							0.54	0.54	0.96	0.30

Note: Cost of production estimates are based on 2018 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, 2019

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						0.20	3.53		3.53
Disk Harrow	24'		2.08	1.42	2.21			0.34	6.05	5.36	11.41
Lime (Spread)	ton	12.65						0.76	13.41		13.41
Custom Apply Fert	acre	7.50						0.45	7.95		7.95
Phosphorus (46% P2O5)	cwt	20.66						1.24	21.90		21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20		28.20
Spray (Broadcast)	60'		0.85	0.38	0.89			0.10	2.22	1.43	3.65
Glyphosate 3lbs a.e	oz	4.48						0.20	4.68		4.68
Select Max	pt	12.71						0.57	13.28		13.28
Surfactant	pt	1.44						0.06	1.50		1.50
Valor SX	oz	9.14						0.41	9.55		9.55
Soybeans Consultant	acre	6.50						0.20	6.70		6.70
Plant & Pre-Folding	12R-30		1.72	2.32	2.44			0.19	6.67	6.70	13.37
Soybean Seed LL	lb	71.00						2.13	73.13		73.13
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.06	2.03	1.34	3.37
Liberty 280	oz	17.11						0.51	17.62		17.62
Dual Magnum	pt	13.81						0.41	14.22		14.22
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34	3.36
Liberty 280	oz	17.11						0.43	17.54		17.54
Zidua	oz	13.58						0.34	13.92		13.92
App by Air ( 5 gal)	appl	6.50						0.13	6.63		6.63
Quadris Top SBX	oz	19.25						0.39	19.64		19.64
Surfactant	pt	0.36						0.01	0.37		0.37
App by Air ( 5 gal)	appl	6.50						0.10	6.60		6.60
Acephate 90SP	lb	5.94						0.09	6.03		6.03
Incidental Pest											
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08		8.08
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Sodium Chlorate 5L	gal	3.24						0.03	3.27		3.27
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	30' Flex		3.70	4.08	2.30			0.05	10.13	15.26	25.39
Haul Soybeans	bu	14.31						0.07	14.38		14.38
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22	2.67
Contour Flood Irr.	acre	2.25	33.23	14.96	5.69			1.15	57.28	56.19	113.47
TOTALS		359.55	43.56	24.21	15.88	0.00	13.72	456.92	88.84	545.76	

Note: Cost of production estimates are based on 2018 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, 2019

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	492.90
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	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	5.64	0.00
FERTILIZERS	47.26	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	6.85	0.00	19.25	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	26.33	0.00	0.00	60.54	30.69	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	5.94	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.44	0.00	0.00	1.44	0.00	0.36	0.00	0.72	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	12.65	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	1.55	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	2.21	0.00	0.00	0.89	0.00	0.00	3.78	2.73	1.61	1.61	0.18	2.87
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	2.08	0.00	0.00	0.85	0.00	0.00	2.44	11.95	10.86	10.86	0.28	4.24
REPAIR & MAINTENANCE	1.42	0.00	0.00	0.38	0.00	0.00	2.68	9.32	2.96	2.96	0.08	4.41
INTEREST ON OP. CAP.	4.59	0.00	0.00	1.34	0.00	0.00	4.70	1.43	0.83	0.41	0.29	0.13
TOTAL DIRECT EXPENSES	81.04	0.00	0.00	31.23	0.00	0.00	161.48	58.37	42.37	28.28	28.19	25.96
NET INCOME	-81.04	0.00	0.00	-31.23	0.00	0.00	-161.48	-58.37	-42.37	-28.28	-28.19	466.94
NET INCOME TO DATE	-81.04	-81.04	-81.04	-112.27	-112.27	-112.27	-273.75	-332.12	-374.49	-402.77	-430.96	35.98

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
			PRODUCT PRICE										
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-264 -353	-252 -341	-240 -329	-227 -316	-215 -304	-203 -292	-190 -279	-178 -267	-166 -255	-153 -242	-141 -230
60	31.80	bu	-229 -318	-214 -303	-199 -288	-185 -273	-170 -259	-155 -244	-140 -229	-125 -214	-111 -199	-96 -185	-81 -170
70	37.10	bu	-193 -282	-176 -265	-159 -248	-142 -230	-124 -213	-107 -196	-90 -179	-73 -161	-55 -144	-38 -127	-21 -110
80	42.40	bu	-158 -247	-138 -227	-118 -207	-99 -187	-79 -168	-59 -148	-40 -128	-20 -109	-0 -89	19 -69	38 -49
90	47.70	bu	-122 -211	-100 -189	-78 -167	-56 -145	-34 -122	-11 -100	10 -78	32 -56	54 -34	76 -11	99 10
100	53.00	bu	-87 -176	-62 -151	-37 -126	-13 -102	11 -77	35 -52	60 -28	85 -3	109 21	134 45	159 70
110	58.30	bu	-51 -140	-24 -113	2 -86	29 -59	56 -32	83 -5	110 22	138 49	165 76	192 103	219 130
120	63.60	bu	-16 -105	13 -75	42 -45	72 -16	102 13	131 42	161 72	190 101	220 131	249 161	279 190
130	68.90	bu	19 -69	51 -37	83 -5	115 26	147 58	179 90	211 122	243 154	275 186	307 218	339 250
140	74.20	bu	54 -33	89 0	123 35	158 69	192 104	227 138	261 173	296 207	330 242	365 276	399 311
150	79.50	bu	90 1	127 38	164 75	201 112	238 149	275 186	312 223	349 260	386 297	423 334	460 371

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 2018 input prices.

Table 18.A Estimated costs per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
Quadris Top SBX	oz	2.75	7.0000	19.25	_____
HERBICIDES					
Boundary	pt	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.59	29.0000	17.11	_____
Dual Magnum	pt	13.81	1.0000	13.81	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.76	6.4000	4.86	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.42	50.0000	71.00	_____
ADJUVANTS					
Surfactant	pt	3.59	0.6000	2.15	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.1171	1.66	_____
Harvesters	hour	14.23	0.1021	1.45	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL					
Tractors	gal	2.60	1.3567	3.53	_____
Harvesters	gal	2.60	1.3935	3.62	_____
1/2-mi Pivot Irr.	gal	2.60	16.4057	42.66	_____
REPAIR & MAINTENANCE					
Implements	acre	3.26	1.0000	3.26	_____
Tractors	acre	0.70	1.0000	0.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
1/2-mi Pivot Irr.	acre	11.57	1.0000	11.57	_____
INTEREST ON OP. CAP.	acre	10.53	1.0000	10.53	_____
TOTAL DIRECT EXPENSES				401.86	_____
FIXED EXPENSES					
Implements	acre	6.31	1.0000	6.31	_____
Tractors	acre	4.83	1.0000	4.83	_____
Harvesters	acre	15.52	1.0000	15.52	_____
1/2-mi Pivot Irr.	acre	47.36	1.0000	47.36	_____
TOTAL FIXED EXPENSES				74.02	_____
TOTAL SPECIFIED EXPENSES				475.88	_____

Note: Cost of production estimates are based on 2018 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 irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	50.0000	465.00	_____
				-----	
TOTAL INCOME				465.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	26.00	1.0000	26.00	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	26.10	1.0000	26.10	_____
HERBICIDES	acre	60.54	1.0000	60.54	_____
INSECTICIDES	acre	37.28	1.0000	37.28	_____
SEED/PLANTS	acre	71.00	1.0000	71.00	_____
ADJUVANTS	acre	2.16	1.0000	2.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
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	14.23	0.2193	3.11	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL	gal	2.60	19.1560	49.81	_____
REPAIR & MAINTENANCE	acre	19.14	1.0000	19.14	_____
INTEREST ON OP. CAP.	acre	10.53	1.0000	10.53	_____
				-----	
TOTAL DIRECT EXPENSES				401.86	_____
RETURNS ABOVE DIRECT EXPENSES				63.14	_____
TOTAL FIXED EXPENSES				74.02	_____
				-----	
TOTAL SPECIFIED EXPENSES				475.88	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-10.88	_____

Note: Cost of production estimates are based on 2018 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 irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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				
Inoculant -Soybean	acre					1.0000				
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 2018 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 irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus(46% P2O5)	cwt	20.66						1.24	21.90	21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20	28.20
Soybeans Consultant	acre	6.50						0.20	6.70	6.70
Plant & Pre-Folding	12R-30		2.04	2.35	2.40			0.17	6.96	6.93
Soybean Seed LL	lb	71.00						1.78	72.78	72.78
CruiserMaxx	oz	6.85						0.17	7.02	7.02
Inoculant -Soybean	acre	1.55						0.04	1.59	1.59
Boundary	pt	22.42						0.56	22.98	22.98
Gramoxone SL 2.0	oz	7.20						0.18	7.38	7.38
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.85	0.38	0.88			0.04	2.15	1.43
Liberty 280	oz	17.11						0.34	17.45	17.45
Dual Magnum	pt	13.81						0.28	14.09	14.09
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Quadris Top SBX	oz	19.25						0.29	19.54	19.54
Surfactant	pt	0.36						0.01	0.37	0.37
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Acephate 90SP	lb	5.94						0.09	6.03	6.03
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Prevathon	oz	18.48						0.28	18.76	18.76
Surfactant	pt	0.36						0.01	0.37	0.37
Bifenthrin	oz	4.86						0.07	4.93	4.93
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08	8.08
Header -Soybean	25' Flex		3.62	4.50	2.70			0.05	10.87	17.00
Haul Soybeans	bu	13.50						0.07	13.57	13.57
Grain Cart Soybean	700 bu		0.64	0.34	0.56			0.01	1.55	1.30
1/2-mi Pivot Irr.	acre		42.66	11.57	0.47			1.15	55.85	47.36
TOTALS		315.37	49.81	19.14	7.01	0.00	10.53	401.86	74.02	475.88

Note: Cost of production estimates are based on 2018 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 irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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	465.00
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	47.26	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	6.85	0.00	19.25	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.62	30.92	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	29.28	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.72	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	12.65	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	1.55	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	2.44	0.93	0.04	0.00	3.26
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	14.84	17.91	12.80	0.00	4.26
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.63	1.12	0.55	0.00	4.84
INTEREST ON OP. CAP.	4.25	0.00	0.00	0.00	0.00	0.00	0.21	3.52	1.02	1.25	0.15	0.13
TOTAL DIRECT EXPENSES	74.99	0.00	0.00	0.00	0.00	0.00	7.05	143.89	51.90	83.39	14.65	25.99
NET INCOME	-74.99	0.00	0.00	0.00	0.00	0.00	-7.05	-143.89	-51.90	-83.39	-14.65	439.01
NET INCOME TO DATE	-74.99	-74.99	-74.99	-74.99	-74.99	-74.99	-82.04	-225.93	-277.83	-361.22	-375.87	63.14

Note: Cost of production estimates are based on 2018 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 irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
			dollars										
PERCENT	YIELD	UNIT											
50	25.00	bu	-220 -294	-209 -283	-197 -271	-185 -259	-174 -248	-162 -236	-150 -224	-139 -213	-127 -201	-116 -190	-104 -178
60	30.00	bu	-187 -261	-173 -247	-159 -233	-145 -219	-131 -205	-117 -191	-103 -177	-89 -163	-75 -149	-61 -135	-47 -121
70	35.00	bu	-153 -227	-137 -211	-121 -195	-104 -178	-88 -162	-72 -146	-56 -130	-39 -113	-23 -97	-7 -81	9 -64
80	40.00	bu	-120 -194	-101 -175	-82 -156	-64 -138	-45 -119	-27 -101	-8 -82	10 -63	28 -45	47 -26	65 -8
90	45.00	bu	-86 -160	-65 -139	-44 -118	-23 -97	-2 -76	17 -56	38 -35	59 -14	80 6	101 27	122 48
100	50.00	bu	-53 -127	-29 -103	-6 -80	16 -57	39 -34	63 -10	86 12	109 35	132 58	156 82	179 105
110	55.00	bu	-19 -93	5 -68	31 -42	57 -16	82 8	108 34	133 59	159 85	185 110	210 136	236 162
120	60.00	bu	13 -60	41 -32	69 -4	97 23	125 51	153 79	181 107	209 135	237 163	265 191	292 218
130	65.00	bu	47 -26	77 3	107 33	138 64	168 94	198 124	228 154	259 184	289 215	319 245	349 275
140	70.00	bu	80 6	113 39	146 72	178 104	211 137	243 169	276 202	308 234	341 267	373 299	406 332
150	75.00	bu	114 40	149 75	184 110	219 145	253 179	288 214	323 249	358 284	393 319	428 354	463 389

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 2018 input prices.

Table 19.A Estimated costs per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	23.75	0.6600	15.68	_____
Potash (60% K2O)	cwt	20.00	1.0000	20.00	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
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	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.59	58.0000	34.22	_____
Dual Magnum	pt	13.81	1.0000	13.81	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.42	50.0000	71.00	_____
ADJUVANTS					
Surfactant	pt	3.59	0.6000	2.15	_____
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	38.00	0.3330	12.65	_____
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	14.23	0.3128	4.44	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR	hour	14.24	0.3734	5.32	_____
DIESEL FUEL					
Tractors	gal	2.60	3.0592	7.96	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	4.75	1.0000	4.75	_____
Tractors	acre	1.70	1.0000	1.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	10.24	1.0000	10.24	_____
TOTAL DIRECT EXPENSES				323.18	_____
FIXED EXPENSES					
Implements	acre	10.48	1.0000	10.48	_____
Tractors	acre	11.82	1.0000	11.82	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				37.82	_____
TOTAL SPECIFIED EXPENSES				361.00	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	43.0000	399.90	_____
				-----	
TOTAL INCOME				399.90	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	13.00	1.0000	13.00	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	35.68	1.0000	35.68	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	100.51	1.0000	100.51	_____
INSECTICIDES	acre	5.94	1.0000	5.94	_____
SEED/PLANTS	acre	71.00	1.0000	71.00	_____
ADJUVANTS	acre	2.16	1.0000	2.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
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	14.23	0.4149	5.89	_____
UNALLOCATED LABOR	hour	14.24	0.3734	5.32	_____
DIESEL FUEL	gal	2.60	4.4528	11.58	_____
REPAIR & MAINTENANCE	acre	10.06	1.0000	10.06	_____
INTEREST ON OP. CAP.	acre	10.24	1.0000	10.24	_____
				-----	
TOTAL DIRECT EXPENSES				323.18	_____
RETURNS ABOVE DIRECT EXPENSES				76.72	_____
TOTAL FIXED EXPENSES				37.82	_____
				-----	
TOTAL SPECIFIED EXPENSES				361.00	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				38.90	_____

Note: Cost of production estimates are based on 2018 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, 2019

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 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				
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
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	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 2018 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, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus (46% P2O5)	cwt	15.68						0.94	16.62	16.62
Potash (60% K2O)	cwt	20.00						1.20	21.20	21.20
Disk Harrow	24'		2.08	1.42	2.21			0.34	6.05	5.36
Field Cultivate Fld	24'		1.58	0.78	1.69			0.24	4.29	4.43
App by Air ( 5 gal)	appl	6.50						0.23	6.73	6.73
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64	4.64
2,4-D Amine 4	pt	4.80						0.17	4.97	4.97
Plant - Folding	12R-30		1.60	1.95	2.27			0.17	5.99	5.79
Soybean Seed LL	lb	71.00						2.13	73.13	73.13
CruiserMaxx	oz	6.85						0.21	7.06	7.06
Boundary	pt	22.42						0.67	23.09	23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42	7.42
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34
Liberty 280	oz	17.11						0.43	17.54	17.54
Dual Magnum	pt	13.81						0.35	14.16	14.16
Soybeans Consultant	acre	6.50						0.16	6.66	6.66
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34
Liberty 280	oz	17.11						0.43	17.54	17.54
Zidua	oz	13.58						0.34	13.92	13.92
Spray (Broadcast)	60'		0.72	0.36	0.89			0.02	1.99	1.34
Acephate 90SP	lb	5.94						0.06	6.00	6.00
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
Gramoxone SL	oz	2.40						0.02	2.42	2.42
Surfactant	pt	0.72						0.01	0.73	0.73
Header -Soybean	25' Flex		3.62	4.50	2.76			0.05	10.93	17.00
Haul Soybeans	bu	11.61						0.06	11.67	11.67
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22
TOTALS		279.13	11.58	10.06	12.17	0.00	10.24	323.18	37.82	361.00

Note: Cost of production estimates are based on 2018 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, 2019

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	399.90
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	35.68	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.28	29.62	61.61	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	5.94	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.72	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	12.65	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	3.90	0.00	0.00	0.00	0.00	0.00	2.27	1.78	0.00	0.00	0.89	3.33
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	3.66	0.00	0.00	0.00	0.00	0.00	1.60	1.44	0.00	0.00	0.72	4.16
REPAIR & MAINTENANCE	2.20	0.00	0.00	0.00	0.00	0.00	1.95	0.72	0.00	0.00	0.36	4.83
INTEREST ON OP. CAP.	4.13	0.00	0.00	0.00	0.00	0.56	3.44	1.81	0.00	0.00	0.18	0.12
TOTAL DIRECT EXPENSES	73.05	0.00	0.00	0.00	0.00	16.34	118.17	73.86	0.00	0.00	17.71	24.05
NET INCOME	-73.05	0.00	0.00	0.00	0.00	-16.34	-118.17	-73.86	0.00	0.00	-17.71	375.85
NET INCOME TO DATE	-73.05	-73.05	-73.05	-73.05	-73.05	-89.39	-207.56	-281.42	-281.42	-281.42	-299.13	76.72

Note: Cost of production estimates are based on 2018 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, 2019

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
			dollars										
PERCENT	YIELD	UNIT											
50	21.50	bu	-167 -205	-157 -195	-147 -185	-137 -175	-127 -165	-117 -155	-107 -145	-97 -135	-87 -125	-77 -115	-67 -105
60	25.80	bu	-138 -176	-126 -164	-114 -152	-102 -140	-90 -128	-78 -116	-66 -104	-54 -92	-42 -80	-30 -68	-18 -56
70	30.10	bu	-109 -147	-95 -133	-81 -119	-67 -105	-53 -91	-39 -77	-25 -63	-11 -49	2 -35	16 -21	30 -7
80	34.40	bu	-80 -118	-64 -102	-48 -86	-32 -70	-16 -54	-0 -38	15 -22	31 -6	47 9	63 25	79 41
90	38.70	bu	-52 -89	-34 -71	-16 -53	1 -35	19 -17	37 0	55 18	73 36	91 54	109 72	127 90
100	43.00	bu	-23 -61	-3 -41	16 -21	36 -1	56 18	76 38	96 58	116 78	136 98	156 118	176 138
110	47.30	bu	5 -32	27 -10	49 11	71 33	93 55	115 77	137 99	159 121	181 143	203 165	225 187
120	51.60	bu	34 -3	58 20	82 44	106 68	130 92	154 116	178 140	202 164	226 188	250 212	274 236
130	55.90	bu	63 25	89 51	115 77	141 103	167 129	193 155	219 181	245 207	271 233	297 259	323 285
140	60.20	bu	92 54	120 82	148 110	176 138	204 166	232 194	260 222	287 250	315 278	343 306	371 334
150	64.50	bu	120 83	150 113	180 143	210 173	240 203	270 233	300 263	330 293	360 322	390 352	420 382

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 2018 input prices.

Table 20.A Estimated costs per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2019

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	23.75	0.6600	15.68	_____
Potash (60% K2O)	cwt	20.00	1.0000	20.00	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Select Max	pt	12.71	1.0000	12.71	_____
Fierce	oz	7.54	3.5000	26.39	_____
Gramoxone SL 2.0	oz	0.15	96.0000	14.40	_____
Boundary	pt	11.21	2.0000	22.42	_____
Liberty 280	oz	0.59	58.0000	34.22	_____
Dual Magnum	pt	13.81	1.0000	13.81	_____
Zidua	oz	9.05	1.5000	13.58	_____
INSECTICIDES					
Dimilin 2L	oz	2.13	1.0000	2.13	_____
Baythroid XL	oz	2.65	1.0650	2.82	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.42	50.0000	71.00	_____
ADJUVANTS					
Surfactant	pt	3.59	1.4500	5.21	_____
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	38.00	0.3330	12.65	_____
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	14.23	0.4365	6.20	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.1382	1.25	_____
UNALLOCATED LABOR					
	hour	14.23	0.4848	6.90	_____
DIESEL FUEL					
Tractors	gal	2.60	4.3820	11.40	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	5.96	1.0000	5.96	_____
Tractors	acre	2.41	1.0000	2.41	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	9.65	1.0000	9.65	_____
TOTAL DIRECT EXPENSES				367.84	_____
FIXED EXPENSES					
Implements	acre	13.08	1.0000	13.08	_____
Tractors	acre	16.72	1.0000	16.72	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				45.32	_____
TOTAL SPECIFIED EXPENSES				413.16	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	40.0000	372.00	_____
				-----	
TOTAL INCOME				372.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
HARVEST AIDS	acre	2.40	1.0000	2.40	_____
FERTILIZERS	acre	35.68	1.0000	35.68	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	142.01	1.0000	142.01	_____
INSECTICIDES	acre	4.95	1.0000	4.95	_____
SEED/PLANTS	acre	71.00	1.0000	71.00	_____
ADJUVANTS	acre	5.22	1.0000	5.22	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1382	1.25	_____
OPERATOR LABOR	hour	14.23	0.5387	7.65	_____
UNALLOCATED LABOR	hour	14.23	0.4848	6.90	_____
DIESEL FUEL	gal	2.60	5.7756	15.02	_____
REPAIR & MAINTENANCE	acre	11.98	1.0000	11.98	_____
INTEREST ON OP. CAP.	acre	9.65	1.0000	9.65	_____
				-----	
TOTAL DIRECT EXPENSES				367.84	_____
RETURNS ABOVE DIRECT EXPENSES				4.16	_____
TOTAL FIXED EXPENSES				45.32	_____
				-----	
TOTAL SPECIFIED EXPENSES				413.16	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-41.16	_____

Note: Cost of production estimates are based on 2018 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, 2019

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	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>0.53</b>	<b>0.53</b>	<b>0.67</b>	<b>0.48</b>

Note: Cost of production estimates are based on 2018 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, 2019

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						0.02	3.35		3.35
Lime (Spread)	ton	12.65						0.06	12.71		12.71
Disk Harrow	24'		2.08	1.42	2.21			0.03	5.74	5.36	11.10
Field Cultivate Fld	24'		1.58	0.78	1.69			0.02	4.07	4.43	8.50
Bed/Lister-Roll-Fold	12R-30		1.88	0.83	1.69			0.02	4.42	3.91	8.33
Spray (Broadcast)	60'		0.72	0.36	0.89			0.09	2.06	1.34	3.40
Glyphosate 3lbs a.e	oz	4.48						0.20	4.68		4.68
Select Max	pt	12.71						0.57	13.28		13.28
Surfactant	pt	1.44						0.06	1.50		1.50
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	15.68						0.55	16.23		16.23
Potash (60% K2O)	cwt	20.00						0.70	20.70		20.70
Spray (Broadcast)	60'		0.72	0.36	0.89			0.07	2.04	1.34	3.38
Fierce	oz	26.39						0.92	27.31		27.31
Gramoxone SL 2.0	oz	7.20						0.25	7.45		7.45
Surfactant	pt	1.44						0.05	1.49		1.49
Soybeans Consultant	acre	6.50						0.20	6.70		6.70
Plant & Pre-Folding	12R-30		1.72	2.32	2.44			0.19	6.67	6.70	13.37
Soybean Seed LL	lb	71.00						2.13	73.13		73.13
CruiserMaxx	oz	6.85						0.21	7.06		7.06
Boundary	pt	22.42						0.67	23.09		23.09
Gramoxone SL 2.0	oz	7.20						0.22	7.42		7.42
Surfactant	pt	1.44						0.04	1.48		1.48
Spray (Broadcast)	60'		0.72	0.36	0.89			0.06	2.03	1.34	3.37
Liberty 280	oz	17.11						0.51	17.62		17.62
Dual Magnum	pt	13.81						0.41	14.22		14.22
Spray (Broadcast)	60'		0.72	0.36	0.89			0.05	2.02	1.34	3.36
Liberty 280	oz	17.11						0.43	17.54		17.54
Zidua	oz	13.58						0.34	13.92		13.92
Spray (Broadcast)	60'		0.36	0.18	0.44			0.02	1.00	0.67	1.67
Dimilin 2L	oz	2.13						0.04	2.17		2.17
Surfactant	pt	0.18							0.18		0.18
Spray (Broadcast)	60'		0.36	0.18	0.44			0.01	0.99	0.67	1.66
Baythroid XL	oz	2.82						0.04	2.86		2.86
App by Air ( 5 gal)	appl	6.50						0.07	6.57		6.57
Gramoxone SL	oz	2.40						0.02	2.42		2.42
Surfactant	pt	0.72						0.01	0.73		0.73
Header -Soybean	25' Flex		3.62	4.50	2.76			0.05	10.93	17.00	27.93
Haul Soybeans	bu	10.80						0.05	10.85		10.85
Grain Cart Soybean	700 bu		0.54	0.33	0.57			0.01	1.45	1.22	2.67
<b>TOTALS</b>			<b>315.39</b>	<b>15.02</b>	<b>11.98</b>	<b>15.80</b>	<b>0.00</b>	<b>9.65</b>	<b>367.84</b>	<b>45.32</b>	<b>413.16</b>

Note: Cost of production estimates are based on 2018 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, 2019

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	372.00
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	35.68	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	6.85	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	17.19	0.00	33.59	60.54	30.69	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.13	2.82	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.44	0.00	1.44	1.44	0.00	0.18	0.00	0.72	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	12.65
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	0.89	0.00	0.89	3.33	0.89	0.44	0.44	0.00	8.92
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	0.72	0.00	0.72	2.44	0.72	0.36	0.36	0.00	9.70
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.36	0.00	0.36	2.68	0.36	0.18	0.18	0.00	7.86
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.92	0.00	2.80	4.64	0.82	0.06	0.05	0.10	0.26
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	21.52	0.00	82.98	159.42	33.48	3.35	3.85	9.72	53.52
NET INCOME	0.00	0.00	0.00	-21.52	0.00	-82.98	-159.42	-33.48	-3.35	-3.85	-9.72	318.48
NET INCOME TO DATE	0.00	0.00	0.00	-21.52	-21.52	-104.50	-263.92	-297.40	-300.75	-304.60	-314.32	4.16

Note: Cost of production estimates are based on 2018 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, 2019

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-222 -268	-213 -258	-204 -249	-195 -240	-185 -231	-176 -221	-167 -212	-157 -203	-148 -193	-139 -184	-129 -175
60	24.00	bu	-196 -241	-184 -230	-173 -219	-162 -207	-151 -196	-140 -185	-129 -174	-117 -163	-106 -152	-95 -140	-84 -129
70	28.00	bu	-169 -214	-156 -201	-143 -188	-130 -175	-117 -162	-104 -149	-91 -136	-78 -123	-65 -110	-52 -97	-39 -84
80	32.00	bu	-142 -187	-127 -172	-112 -158	-97 -143	-82 -128	-68 -113	-53 -98	-38 -83	-23 -68	-8 -53	6 -38
90	36.00	bu	-115 -160	-98 -144	-82 -127	-65 -110	-48 -94	-31 -77	-15 -60	1 -43	18 -27	35 -10	51 6
100	40.00	bu	-88 -134	-70 -115	-51 -96	-33 -78	-14 -59	4 -41	22 -22	41 -3	59 14	78 33	97 51
110	44.00	bu	-62 -107	-41 -86	-21 -66	-0 -45	19 -25	40 -5	60 15	81 35	101 56	122 76	142 97
120	48.00	bu	-35 -80	-12 -58	9 -35	31 -13	54 8	76 31	98 53	121 75	143 98	165 120	187 142
130	52.00	bu	-8 -53	15 -29	39 -5	64 18	88 43	112 67	136 91	160 115	185 139	209 163	233 188
140	56.00	bu	18 -26	44 -0	70 25	96 51	122 77	148 103	174 129	200 155	226 181	252 207	278 233
150	60.00	bu	45 -0	73 27	101 55	128 83	156 111	184 139	212 167	240 195	268 223	296 251	324 278

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 2018 input prices.

Table 21.A Estimated costs per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2019

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	23.75	0.8700	20.66	_____
Potash (60% K2O)	cwt	20.00	1.3300	26.60	_____
FUNGICIDES					
CruiserMaxx	oz	4.28	1.6000	6.85	_____
HERBICIDES					
Boundary	pt	11.21	2.0000	22.42	_____
Gramoxone SL 2.0	oz	0.15	48.0000	7.20	_____
Liberty 280	oz	0.59	29.0000	17.11	_____
Dual Magnum	pt	13.81	1.0000	13.81	_____
INSECTICIDES					
Acephate 90SP	lb	7.92	0.7500	5.94	_____
Prevathon	oz	1.32	14.0000	18.48	_____
Bifenthrin	oz	0.76	6.4000	4.86	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.42	50.0000	71.00	_____
ADJUVANTS					
Surfactant	pt	3.59	0.5000	1.80	_____
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	38.00	0.3330	12.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	14.23	0.1171	1.66	_____
Harvesters	hour	14.23	0.1021	1.45	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR					
	hour	14.26	0.1886	2.69	_____
DIESEL FUEL					
Tractors	gal	2.60	1.3567	3.53	_____
Harvesters	gal	2.60	1.3935	3.62	_____
REPAIR & MAINTENANCE					
Implements	acre	3.26	1.0000	3.26	_____
Tractors	acre	0.70	1.0000	0.70	_____
Harvesters	acre	3.61	1.0000	3.61	_____
INTEREST ON OP. CAP.	acre	8.94	1.0000	8.94	_____
TOTAL DIRECT EXPENSES				312.71	_____
FIXED EXPENSES					
Implements	acre	6.31	1.0000	6.31	_____
Tractors	acre	4.83	1.0000	4.83	_____
Harvesters	acre	15.52	1.0000	15.52	_____
TOTAL FIXED EXPENSES				26.66	_____
TOTAL SPECIFIED EXPENSES				339.37	_____

Note: Cost of production estimates are based on 2018 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, 2019

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.30	25.0000	232.50	_____
				-----	
TOTAL INCOME				232.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	19.50	1.0000	19.50	_____
FERTILIZERS	acre	47.26	1.0000	47.26	_____
FUNGICIDES	acre	6.85	1.0000	6.85	_____
HERBICIDES	acre	60.54	1.0000	60.54	_____
INSECTICIDES	acre	37.28	1.0000	37.28	_____
SEED/PLANTS	acre	71.00	1.0000	71.00	_____
ADJUVANTS	acre	1.80	1.0000	1.80	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	12.65	1.0000	12.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0817	0.74	_____
OPERATOR LABOR	hour	14.23	0.2193	3.11	_____
UNALLOCATED LABOR	hour	14.26	0.1886	2.69	_____
DIESEL FUEL	gal	2.60	2.7503	7.15	_____
REPAIR & MAINTENANCE	acre	7.57	1.0000	7.57	_____
INTEREST ON OP. CAP.	acre	8.94	1.0000	8.94	_____
				-----	
TOTAL DIRECT EXPENSES				312.71	_____
RETURNS ABOVE DIRECT EXPENSES				-80.21	_____
TOTAL FIXED EXPENSES				26.66	_____
				-----	
TOTAL SPECIFIED EXPENSES				339.37	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-106.87	_____

Note: Cost of production estimates are based on 2018 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, 2019

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				
Inoculant -Soybean	acre					1.0000				
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 2018 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, 2019

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						0.20	3.53	3.53
Lime (Spread)	ton	12.65						0.76	13.41	13.41
Custom Apply Fert	acre	7.50						0.45	7.95	7.95
Phosphorus(46% P2O5)	cwt	20.66						1.24	21.90	21.90
Potash (60% K2O)	cwt	26.60						1.60	28.20	28.20
Soybeans Consultant	acre	6.50						0.20	6.70	6.70
Plant & Pre-Folding	12R-30		2.04	2.35	2.40			0.17	6.96	6.93
Soybean Seed LL	lb	71.00						1.78	72.78	72.78
CruiserMaxx	oz	6.85						0.17	7.02	7.02
Inoculant -Soybean	acre	1.55						0.04	1.59	1.59
Boundary	pt	22.42						0.56	22.98	22.98
Gramoxone SL 2.0	oz	7.20						0.18	7.38	7.38
Surfactant	pt	1.44						0.04	1.48	1.48
Spray (Broadcast)	60'		0.85	0.38	0.88			0.04	2.15	1.43
Liberty 280	oz	17.11						0.34	17.45	17.45
Dual Magnum	pt	13.81						0.28	14.09	14.09
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Acephate 90SP	lb	5.94						0.09	6.03	6.03
App by Air ( 5 gal)	appl	6.50						0.10	6.60	6.60
Prevathon	oz	18.48						0.28	18.76	18.76
Surfactant	pt	0.36						0.01	0.37	0.37
Bifenthrin	oz	4.86						0.07	4.93	4.93
Incidental Pest										
App by Air ( 5 gal)	appl	6.50						0.07	6.57	6.57
IncidentalPestTrt \$8	acre	8.00						0.08	8.08	8.08
Header -Soybean	25' Flex		3.62	4.50	2.70			0.05	10.87	17.00
Haul Soybeans	bu	6.75						0.03	6.78	6.78
Grain Cart Soybean	700 bu		0.64	0.34	0.56			0.01	1.55	1.30
TOTALS		282.51	7.15	7.57	6.54	0.00	8.94	312.71	26.66	339.37

Note: Cost of production estimates are based on 2018 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, 2019

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	232.50
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	47.26	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	6.85	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.62	30.92	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	29.28	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.36	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	12.65	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	1.55	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	2.40	0.88	0.00	0.00	3.26
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	2.04	0.85	0.00	0.00	4.26
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	0.38	0.00	0.00	4.84
INTEREST ON OP. CAP.	4.25	0.00	0.00	0.00	0.00	0.00	0.20	2.94	0.66	0.65	0.15	0.09
TOTAL DIRECT EXPENSES	74.99	0.00	0.00	0.00	0.00	0.00	6.70	120.19	33.69	43.29	14.65	19.20
NET INCOME	-74.99	0.00	0.00	0.00	0.00	0.00	-6.70	-120.19	-33.69	-43.29	-14.65	213.30
NET INCOME TO DATE	-74.99	-74.99	-74.99	-74.99	-74.99	-74.99	-81.69	-201.88	-235.57	-278.86	-293.51	-80.21

Note: Cost of production estimates are based on 2018 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 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, 2019

PRODUCT			PERCENT										
-----			75	80	85	90	95	100	105	110	115	120	125
-----			PRODUCT PRICE-----										
-----			dollars-----										
Soybeans			6.97	7.44	7.90	8.37	8.83	9.30	9.76	10.23	10.69	11.16	11.62
PERCENT	YIELD	UNIT	-----										
50	12.50	bu	-222	-216	-210	-204	-198	-193	-187	-181	-175	-169	-164
			-248	-242	-237	-231	-225	-219	-213	-208	-202	-196	-190
60	15.00	bu	-205	-198	-191	-184	-177	-170	-163	-156	-149	-142	-135
			-232	-225	-218	-211	-204	-197	-190	-183	-176	-169	-162
70	17.50	bu	-188	-180	-172	-164	-156	-147	-139	-131	-123	-115	-107
			-215	-207	-198	-190	-182	-174	-166	-158	-150	-142	-133
80	20.00	bu	-171	-162	-153	-143	-134	-125	-116	-106	-97	-88	-78
			-198	-189	-179	-170	-161	-152	-142	-133	-124	-114	-105
90	22.50	bu	-155	-144	-134	-123	-113	-102	-92	-81	-71	-60	-50
			-181	-171	-160	-150	-139	-129	-118	-108	-98	-87	-77
100	25.00	bu	-138	-126	-115	-103	-91	-80	-68	-56	-45	-33	-22
			-164	-153	-141	-130	-118	-106	-95	-83	-71	-60	-48
110	27.50	bu	-121	-108	-96	-83	-70	-57	-44	-32	-19	-6	6
			-148	-135	-122	-109	-97	-84	-71	-58	-45	-33	-20
120	30.00	bu	-104	-90	-76	-62	-49	-35	-21	-7	6	20	34
			-131	-117	-103	-89	-75	-61	-47	-33	-19	-5	8
130	32.50	bu	-88	-72	-57	-42	-27	-12	2	17	32	47	63
			-114	-99	-84	-69	-54	-39	-24	-8	6	21	36
140	35.00	bu	-71	-55	-38	-22	-6	10	26	42	58	75	91
			-97	-81	-65	-49	-32	-16	-0	15	32	48	64
150	37.50	bu	-54	-37	-19	-2	15	32	50	67	84	102	119
			-81	-63	-46	-28	-11	5	23	40	58	75	93

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 2018 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, 2019

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	339,000	300	8	13.64	13.51	35.46	35.31	84.28	151.94	236.23
Combine (300-349 hp)	325 hp	362,000	300	8	16.73	13.51	43.49	37.70	94.71	162.25	256.97
Combine (350-399 hp)	355 hp	391,000	300	8	18.27	13.51	47.50	40.72	101.74	175.25	276.99
Combine (400-449 hp)	425 hp	412,000	300	8	21.87	13.51	56.87	42.91	113.30	184.66	297.97
Combine (450-499hp)	475 hp	434,000	300	8	24.44	13.51	63.56	45.20	122.28	194.52	316.81
Tractor( 20-39hp)CB	MFWD 30	25,500	600	8	1.54	13.51	4.01	0.79	18.32	5.29	23.61
Tractor( 20-39hp)RB	MFWD 30	20,400	600	8	1.54	13.51	4.01	0.63	18.16	4.23	22.39
Tractor( 40-59hp)CB	2WD 50	29,400	600	8	2.57	13.51	6.69	0.91	21.12	6.10	27.22
Tractor( 40-59hp)CB	MFWD 50	39,500	600	8	2.57	13.51	6.69	1.23	21.43	8.19	29.63
Tractor( 40-59hp)RB	2WD 50	22,900	600	8	2.57	13.51	6.69	0.71	20.91	4.75	25.67
Tractor( 40-59hp)RB	MFWD 50	27,800	600	8	2.57	13.51	6.69	0.86	21.07	5.77	26.84
Tractor( 60-89hp)CB	2WD 75	52,800	600	8	3.86	13.51	10.03	1.65	25.19	10.95	36.15
Tractor( 60-89hp)CB	MFWD 75	62,500	600	8	3.86	13.51	10.03	1.95	25.50	12.97	38.47
Tractor( 60-89hp)RB	2WD 75	38,600	600	8	3.86	13.51	10.03	1.20	24.75	8.01	32.76
Tractor( 60-89hp)RB	MFWD 75	40,100	600	8	3.86	13.51	10.03	1.25	24.80	8.32	33.12
Tractor( 90-119hp)CB	2WD 105	69,200	600	8	5.40	13.51	14.05	2.16	29.72	14.36	44.08
Tractor( 90-119hp)CB	MFWD 105	83,000	600	8	5.40	13.51	14.05	2.59	30.15	17.22	47.38
Tractor( 90-119hp)RB	2WD 105	61,200	600	8	5.40	13.51	14.05	1.91	29.47	12.70	42.17
Tractor( 90-119hp)RB	MFWD 105	67,500	600	8	5.40	13.51	14.05	2.10	29.67	14.01	43.68
Tractor(120-139hp)CB	2WD 130	103,000	600	8	6.69	13.51	17.39	3.21	34.12	21.37	55.50
Tractor(120-139hp)CB	MFWD 130	114,000	600	8	6.69	13.51	17.39	3.56	34.47	23.66	58.13
Tractor(140-159hp)	2WD 150	109,000	600	8	7.72	13.51	20.07	3.40	36.99	22.62	59.61
Tractor(140-159hp)CB	MFWD 150	130,000	600	8	7.72	13.51	20.07	4.06	37.64	26.98	64.63
Tractor(160-179hp)CB	MFWD 170	148,000	600	8	8.75	13.51	22.75	4.62	40.88	31.94	72.83
Tractor(180-199hp)CB	MFWD 190	175,000	600	8	9.77	13.51	25.42	5.46	44.40	37.77	82.17
Tractor(200-249hp)CB	MFWD 225	191,000	600	8	11.58	13.51	30.11	5.96	49.59	41.22	90.81
Tractor(250-349hp)CB	4WD 300	286,000	600	8	15.44	13.51	40.14	8.93	62.59	61.73	124.32
Tractor(250-349hp)CB	MFWD 300	278,000	600	8	15.44	13.51	40.14	8.68	62.34	60.00	122.34
Tractor(250-349hp)CB	Track 300	317,000	600	8	15.44	13.51	40.14	9.90	63.56	68.42	131.98
Tractor(350-449hp)	Track 400	420,000	600	8	20.58	13.51	53.53	13.12	80.16	90.65	170.81
Tractor(350-449hp)CB	4WD 400	328,000	600	8	20.58	13.51	53.53	10.25	77.29	70.79	148.08
Tractor(450-550hp)CB	4WD 500	394,000	600	8	25.73	13.51	66.91	12.31	92.73	85.04	177.77
Tractor(450-550hp)CB	Track 500	444,000	600	8	25.73	13.51	66.91	13.87	94.29	95.83	190.13
Utility Vehicle	800 CC	12,200	200	8	0.70	13.51	1.75	1.90	17.16	8.20	25.36
Utility Vehicle	900 CC	15,800	200	8	1.00	13.51	2.50	2.46	18.47	10.62	29.10

## Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

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, 2019

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	8.62	10.79	25.23	46.44	71.68
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	5.81	12.07	14.13	32.02	60.83	92.86
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	3.88	8.07	9.61	21.57	41.35	62.92
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	4.92	10.36	15.85	31.15	68.23	99.38
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	3.88	8.18	12.51	24.59	53.86	78.46
Cotton Picker/Module	4R-38 (365)	536,000	200	8	20.58	0.257	5.81	13.79	21.58	41.20	92.89	134.10
Cotton Picker/Module	6R-30 (500)	776,000	200	8	25.73	0.218	4.92	14.60	26.46	45.99	113.86	159.85
Cotton Picker/Module	6R-38 (500)	777,000	200	8	25.73	0.172	3.88	11.52	20.91	36.33	90.01	126.35
Dry Applicator SP	70'300cuft	347,000	350	8	16.98	0.015	0.27	0.66	0.28	1.22	2.01	3.23
Sprayer 600-750gal	60' 175hp	208,000	350	8	9.00	0.017	0.31	0.41	0.19	0.92	1.40	2.33
Sprayer 600-825gal	80' 175hp	210,000	350	8	11.81	0.013	0.23	0.40	0.14	0.79	1.06	1.85
Sprayer 600-825gal	90' 250hp	288,000	350	8	12.73	0.011	0.21	0.38	0.18	0.78	1.30	2.08
Sprayer 800gal	100' 250hp	303,000	350	8	14.15	0.010	0.19	0.38	0.17	0.75	1.23	1.98
Sprayer 800gal	80' 250hp	255,000	350	8	12.86	0.013	0.23	0.44	0.18	0.86	1.29	2.15
Sprayer 1000-1400gal	90' 275hp	289,000	350	8	14.15	0.010	0.19	0.38	0.16	0.74	1.17	1.91
Sprayer 1000gal	100' 300hp	328,000	350	8	15.44	0.010	0.19	0.42	0.18	0.80	1.33	2.13
Sprayer 1200+gal	120' 300hp	332,000	350	8	15.44	0.008	0.15	0.35	0.15	0.66	1.12	1.79

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, 2019 (continued)

Table with 14 columns: Item Name, Size, Power Unit, Purchase Price, Annual Use, Useful Life, Perf Rate, Labor, Fuel, ---R&M--- Imp. P.U. Direct, Total ---Fixed--- Imp. P.U., Total Cost. Rows include various agricultural equipment like corn headers, draper headers, rice strippers, soybean headers, grain drills, and planters.

(continued)







Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2019

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Captan 50 WP	lb	4.28
Agri-Dex	pt	2.39	Cotton Seed Trt.	acre	20.00
Crop Oil Conc. (Pet.)	pt	2.37	CruiserMaxx	oz	4.28
Crop Oil Conc. (Veg.)	pt	2.58	Headline EC	oz	3.11
Dyne-A-Pak	pt	4.80	Propimax EC	pt	12.88
Induce	pt	3.59	Prosaro	oz	2.56
MSO	pt	2.09	Quadris	oz	2.25
Penetrator Plus	pt	2.34	Quadris Top	oz	2.61
Surfactant	pt	3.59	Quadris Top SBX	oz	2.75
CLEANING			Quilt	pt	18.55
Cleaning Peanuts	ton	18.00	Quilt XCEL	pt	25.43
CROP CONSULTANT			Stratego	pt	24.58
Corn Consultant	acre	6.00	Stratego YLD	oz	4.28
Cotton Consultant	acre	8.00	Tilt 3.6 EC	oz	0.75
Peanut Consultant	acre	9.25	Tilt/ Bravo SE	oz	0.41
Rice Consultant	acre	8.00	GINNING		
Sorghum Consultant	acre	6.00	Gin & Haul	lb	0.11
Soybeans Consultant	acre	6.50	GROWTH REGULATORS		
Wheat Consultant	acre	5.50	Mepex	oz	0.08
CUSTOM FERTILIZE			Mepichlor 4.2%	oz	0.08
App Fert by Air	cwt	7.00	Mepiquat	oz	0.08
App Fert by Air (Mi)	appl	7.00	Mepstar	oz	0.08
Custom Apply Fert	acre	7.50	Palisade	oz	1.25
CUSTOM LIME			Stance	oz	1.25
Lime (Spread)	ton	38.00	HARVEST AIDS		
CUSTOM PLANT			Adios	oz	1.99
Custom Plant	acre	7.50	Aim 2EC	oz	5.65
Custom Plant Air	cwt	7.00	Def/Folex	pt	10.90
CUSTOM			Defol 5	gal	5.40
App by Air ( 3 gal)	appl	5.00	Display	pt	40.61
App by Air ( 5 gal)	appl	6.50	Ethephon 6E	pt	3.53
App by Air (10 gal)	appl	9.00	Finish 6	pt	9.60
Custom Spray Ground	acre	7.00	Folex 6EC	pt	10.90
DRYING			Freefall SC	oz	0.97
Dry Corn	bu	0.19	Ginstar EC	pt	26.41
Dry Grain Sorghum	cwt	0.25	Gramoxone SL	oz	0.15
Dry Peanuts	ton	24.00	Sharpen	oz	6.45
Dry Rice	bu	0.40	Sodium Chlorate 5L	gal	5.40
ERADICATION FEE			SuperBoll	oz	0.22
Eradication	acre	1.00	Thidiazuron 4lb	oz	0.97
FERTILIZERS			Tribufos 6lb	pt	10.90
Agrotain Ultra	pt	9.12	HAULING		
Amm Sulfate (21% N)	cwt	14.50	Haul Corn	bu	0.23
Boron Plus	pt	3.50	Haul Peanuts	ton	14.50
DAP	cwt	23.76	Haul Rice	bu	0.35
Fert 10-34-0	cwt	22.25	Haul Sorghum	bu	0.25
Fert 10-34-0	gal	2.59	Haul Soybeans	bu	0.27
Fert 11-37-0	cwt	26.50	Haul Wheat	bu	0.26
Fert 33-0-0-12S	cwt	18.00	HERBICIDES		
Fert 41-0-0-4	cwt	14.25	2,4-D Ester	pt	4.17
Lime	ton	28.00	2,4-D Amine 4	pt	2.40
NBPT	pt	9.12	AAtrex 4L	pt	2.12
Phosphorus (46% P2O5)	cwt	23.75	Accent Q	oz	23.85
Potash (60% K2O)	cwt	20.00	Aim	oz	5.65
Sulfur Plus	pt	3.15	Anthem	oz	3.08
UAN (32% N)	cwt	11.25	Anthem Maxx	oz	6.16
UAN (32%)	gal	1.24	Armezon Pro	oz	1.26
UAN + Sulfur (28%)	cwt	12.40	Atrazine 4L	pt	1.98
UAN + Sulfur (28%)	gal	1.38	Atrazine 90DF	lb	3.38
Urea, Solid (46% N)	cwt	14.50	Authority Elite	pt	15.67
Zinc Plus	pt	4.99	Authority Maxx	lb	64.05
FUNGICIDES			Authority MTZ	lb	26.30
Aframe	oz	1.91	Axial XL	oz	1.18
Alfa Guard	lb	1.55	Axiom	oz	1.92
Allegiance Flowable	pt	49.00	Barrage	pt	6.63
Approach Prima	pt	42.10	Boundary	pt	11.21
Apron Maxx RTA	oz	0.95	Broadaxe	pt	16.57
Avicta Complete Bean	oz	0.49	Bucaneer Plus	pt	1.48
Bravo Weather Stick	pt	6.88			

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2019(continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Butyrac 200 (2,4-DB)	pt	4.34	Stalwart	pt	4.80
Bxxolero	pt	7.73	Stam 80 EDF	lb	9.64
Cadre	oz	3.54	Stam M4	qt	7.84
Caparol	pt	4.52	Staple LX	oz	7.63
Capreno	oz	7.13	Sterling Blue	pt	7.82
Cinch ATZ	pt	5.89	Storm	pt	11.41
Clarity	pt	11.51	Superwham	qt	9.20
Classic	oz	17.18	Suprend	lb	13.74
Clearpath	lb	61.27	Synchrony XP	oz	12.71
Clethomine 2E	oz	0.56	Tempest	oz	1.84
Clincher SF	oz	2.34	Touchdown Total	qt	6.97
Command 3ME	pt	19.93	Trifluralin	pt	3.56
Corvus	oz	7.29	Triflurex	pt	3.86
Cotoran	pt	6.42	Ultra Blazer	pt	10.26
Declare	oz	1.64	Valor SX	oz	4.57
Dicamba	pt	8.48	Warrant	pt	4.84
Direx	pt	2.93	XtendiMax	oz	9.10
Diuron	pt	2.90	Zidua	oz	9.05
Dual II Magnum	pt	14.83	INOCULANT		
Dual Magnum	pt	13.81	Inoculant-Soybean	acre	1.55
Duet	pt	5.35	Optimize LIFT	oz	0.55
Endigo	oz	1.80	INSECTICIDES		
Engenia	oz	1.02	Abamectin .15EC	oz	0.95
Facet L	pt	15.25	Acephate 90%	lb	8.70
Fierce	oz	7.54	Acephate 90SP	lb	7.92
First Rate	oz	43.40	Admire Pro	oz	1.80
Flexstar	pt	8.41	Baythroid XL	oz	2.65
Fusilade DX	oz	1.00	Belt	oz	7.90
Glyphosate 3lbs a.e	pt	2.16	Bidrin 8EC	oz	1.26
Glyphosate 3lbs a.e	oz	0.14	Bifenthrin	oz	0.76
Gramoxone SL 2.0	oz	0.15	Bifenture 2EC	oz	0.76
Grandstand R	pt	15.86	Brigade EC	pt	12.37
Halex GT	pt	7.80	Capture LFR	oz	2.28
Halomax	oz	21.44	Centric 40WG	oz	5.37
Harmony Extra SG	oz	13.79	Diamond .83EC	oz	1.40
Hero	pt	25.77	Dimethoate 4E	pt	5.35
Leadoff	oz	5.82	Dimilin 2L	oz	2.13
Lexar	pt	8.01	Force 3G	lb	6.03
Liberty 280	oz	0.59	Gaicho 600	oz	2.36
Loyant	oz	0.00	Imidacloprid 4F	oz	1.00
Metribuzin 4L	pt	9.98	Imidan 70 WSB	oz	0.67
Metribuzin 75	lb	16.40	IncidentalPestTrt \$8	acre	8.00
Newpath	oz	3.83	IncidentalPestTrt\$15	acre	15.00
Osprey	oz	3.62	IncidentalPestTrt\$22	acre	22.00
Outlook	pt	16.60	IncidentalPestTrt\$30	acre	30.00
Paraquat	oz	0.24	Intrepid 2F	oz	2.03
Parazone 3SL	oz	0.24	Intruder 70WSP	oz	9.05
Permit	oz	22.46	Karate Z	oz	2.74
Permit Plus	oz	21.02	Lambda	oz	1.09
Prefix	pt	6.53	Lannate LV	pt	10.99
Provisia	oz	0.78	Macho	oz	0.64
Prowl 3.3 EC	pt	6.09	Malathion 5E	pt	5.50
RealmQ	oz	4.97	Malathion 8E	pt	5.50
RebelEx	oz	2.51	Mustang Max	oz	1.34
Reflex	pt	6.53	Nuprid 4F	oz	1.06
Regiment	oz	44.90	Orthene 90	lb	9.49
Resicore	oz	0.58	Permethrin	oz	0.49
Resource	oz	1.83	Pounce 25WP	lb	14.15
RiceBeaux	pt	5.85	Prevathon	oz	1.32
Riceshot	pt	3.87	Radiant	oz	6.82
Ricestar HT	pt	24.35	Sevin 4F	pt	6.22
Roundup Power Max	oz	0.18	Sevin XLR Plus	qt	13.23
Roundup PowerMax	pt	2.80	Sivanto Prime	oz	2.52
Roundup WeatherMax	oz	0.26	Transform WG	oz	8.18
Roundup WeatherMax	pt	4.17	Warrior II	oz	2.67
Select Max	pt	12.71	IRRIGATION SUPPLIES		
Sequence	pt	5.94	Roll-Out Pipe	ft	0.25
Sharpen	oz	6.45	SEED/PLANTS		
Sinister	pt	15.63			(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2019 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Corn Seed Conv.	thous	2.26	Rice Seed Trt/Insect	lbseed	0.23
Corn Seed BtRR	thous	3.63	Sorghum Concept	lb	2.10
Corn Seed RR2	thous	3.36	Sorghum Concept+ Po	lb	3.96
Cotton Seed B3XF	thous	2.40	Soybean Seed LL	lb	1.42
Cotton Seed GLB2	thous	2.54	Soybean Seed RR2	lb	1.34
Cotton Seed GLTP	thous	2.11	Soybean Seed RR2X	lb	1.55
Cotton Seed W3FE	thous	2.34	SOIL TEST		
CSeed B3XF/W3RE/GLTP	thous	2.28	Soil Test	acre	10.00
Peanut Seed	lb	0.84	SURVEY & MARK LEVEES		
Rice Clearfield	lb	1.06	Survey & Mark Levees	acre	4.50
Rice Clrfld Hyb Trt	lb	5.70			
Rice Conv Hyb Trt	lb	5.70			
Rice Seed CF(Levees)	lb	1.06			
Rice Seed CFH(Levee)	lb	1.78			
Rice Seed Conv.	lb	0.28			
Rice Seed Cv(Levees)	lb	0.28			
Rice Seed CvH(Levee)	lb	1.66			
Rice Seed Provisia	lb	1.15			

Appendix Table 5. Estimated fuel prices  
and interest rates, Mississippi, 2019

ITEM NAME	UNIT	PRICE
dollars		
FUEL TYPES		
Diesel Fuel	gal	2.60
Gasoline	gal	2.50
INTEREST RATES		
Short-term	%	6.00
Intermediate-term	%	6.50

Appendix Table 6. Labor types, wage rates and unallocated labor  
Multipliers for crop enterprises, Mississippi, 2019

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	14.23
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, 2019

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 '19	4.00	-0.20	3.80	2.10	3.80
Cotton Lint	lb	Dec '19	0.7572	-0.0158	0.7414	0.52	0.7414
Cottonseed	lb						0.10 <sup>f</sup>
Grain Sorghum	bu				3.61	2.02	3.61
Peanuts	ton				385.00	355.00	385.00
Soybeans	bu	Nov '19	9.29	+0.01	9.30	5.21	9.30
Rice	bu	Nov '19	4.98	-0.38	4.60	2.96	4.60
Wheat	bu	Jul '19	5.52	-0.15	5.37	2.76	5.37

<sup>a</sup> Average of the daily closing futures contract prices during the first 5 trading days in October 2018 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 2018 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 2018 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2018 Farm-stored Loan Rate for long grain rough rice. National 2019 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 2008-2017.

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, 2019

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----dollars-----										
Land Plane	50'x16'		0.96	0.32	0.51		0.11	1.90	1.75	3.65
Set Up Engine										
IRRIGATE LABOR	hour				0.23		0.01	0.24		0.24
Ditcher (1m/160a)			0.21	0.06	0.13		0.01	0.41	0.33	0.74
Roll-Out Pipe	ft	8.25					0.16	8.41		8.41
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll		0.28	0.09	0.40		0.02	0.79	0.72	1.51
IRRIGATE LABOR	hour				1.81		0.04	1.85		1.85
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		0.43	0.13	0.59		0.01	1.16	1.07	2.23
Land Forming (\$450)	each								36.89	36.89
Well & Pump, Furrow	each			2.96			0.06	3.02	10.09	13.11
Main Line Pipe	each								4.99	4.99
Engine, RPF, ESB	each								9.53	9.53
1st June Irrigation	ac-in		6.35	1.31			0.15	7.81		7.81
2nd June Irrigation	ac-in		6.35	1.31			0.15	7.81		7.81
July Irrigation	ac-in		6.35	1.31			0.11	7.77		7.77
TOTALS		8.25	20.93	7.49	4.36	0.00	0.83	41.86	65.37	107.23

Note: Cost of production estimates are based on 2018 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, 2019

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		0.37	0.09	0.22			0.02	0.70	0.64
Survey & Mark Levees	acre	2.25						0.06	2.31	2.31
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.49	0.13	0.29			0.02	0.93	0.86
Butt Levees										
Blade-Box	6'-7'		0.46	0.10	0.27			0.02	0.85	0.65
IRRIGATE LABOR	hour				0.68			0.02	0.70	0.70
Apply Water										
IRRIGATE LABOR	hour				0.11				0.11	0.11
Tear Down Levees										
Levee Splitter (1/80)	32"		0.38	0.10	0.23			0.02	0.73	0.67
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.49	0.13	0.29			0.02	0.93	0.86
Butt Levees										
Blade-Box	6'-7'		0.46	0.10	0.27			0.02	0.85	0.65
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"		0.38	0.10	0.23			0.01	0.72	0.67
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.49	0.13	0.29			0.01	0.92	0.86
Butt Levees										
Blade-Box	6'-7'		0.46	0.10	0.27			0.01	0.84	0.65
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"		0.38	0.10	0.23			0.01	0.72	0.67
Tear Down Levees										
Levee Splitter (1/80)	32"		0.28	0.08	0.17			0.01	0.54	0.50
Land Forming (\$113)	each									9.26
Well & Pump, Flood	each			5.91				0.15	6.06	20.19
Engine, CF, 75	each									19.06
June Irrigation	ac-in		9.53	2.63				0.30	12.46	12.46
July Irrigation	ac-in		9.53	2.63				0.24	12.40	12.40
August Irrigation	ac-in		9.53	2.63				0.18	12.34	12.34
TOTALS		2.25	33.23	14.96	5.58	0.00	1.15	57.17	56.19	113.36

Note: Cost of production estimates are based on 2018 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, 2019

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		0.22	8.82	39.04	47.86	
Well & Pump, 1/2 CP	each			1.13		0.03	1.16	3.87	5.03	
Engine, 1/2 CP, 174	each							4.45	4.45	
June Irr. 3app@.75"	ac-in		12.80	0.55		0.33	13.68		13.68	
July Irr. 4app@.75"	ac-in		17.06	0.74		0.36	18.16		18.16	
Aug Irr. 3app@.75"	ac-in		12.80	0.55		0.20	13.55		13.55	
TOTALS		0.00	42.66	11.57	0.47	0.00	1.15	55.85	47.36	103.21

Note: Cost of production estimates are based on 2018 input prices.

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