

**SOYBEANS  
2020  
PLANNING BUDGETS**

**Mississippi State University  
Department of Agricultural Economics  
Budget Report 2019-02**

**October 2019**



## 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 2020 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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# 2020 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.

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 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 2019. (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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.39	50.0000	69.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.0000	5.31	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.3302	5.03	_____
Harvesters	hour	15.22	0.0851	1.30	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR	hour	15.24	0.3738	5.70	_____
DIESEL FUEL					
Tractors	gal	2.30	3.8252	8.80	_____
Harvesters	gal	2.30	1.4243	3.28	_____
REPAIR & MAINTENANCE					
Implements	acre	5.10	1.0000	5.10	_____
Tractors	acre	2.34	1.0000	2.34	_____
Harvesters	acre	3.40	1.0000	3.40	_____
INTEREST ON OP. CAP.	acre	10.47	1.0000	10.47	_____
TOTAL DIRECT EXPENSES				360.89	_____
FIXED EXPENSES					
Implements	acre	11.35	1.0000	11.35	_____
Tractors	acre	15.94	1.0000	15.94	_____
Harvesters	acre	14.41	1.0000	14.41	_____
TOTAL FIXED EXPENSES				41.70	_____
TOTAL SPECIFIED EXPENSES				402.59	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	42.0000	403.20	_____
				-----	
TOTAL INCOME				403.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	87.90	1.0000	87.90	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
SEED/PLANTS	acre	69.50	1.0000	69.50	_____
ADJUVANTS	acre	5.30	1.0000	5.30	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.4154	6.33	_____
UNALLOCATED LABOR	hour	15.24	0.3738	5.70	_____
DIESEL FUEL	gal	2.30	5.2496	12.08	_____
REPAIR & MAINTENANCE	acre	10.84	1.0000	10.84	_____
INTEREST ON OP. CAP.	acre	10.47	1.0000	10.47	_____
				-----	
TOTAL DIRECT EXPENSES				360.89	_____
RETURNS ABOVE DIRECT EXPENSES				42.31	_____
TOTAL FIXED EXPENSES				41.70	_____
				-----	
TOTAL SPECIFIED EXPENSES				402.59	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				0.61	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 DF	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 2019 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, 2020

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						0.17	3.50		3.50
Subsoiler	3 shank		1.09	0.37	1.18			0.14	2.78	2.19	4.97
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Disk Harrow	24'		2.18	1.59	2.37			0.32	6.46	6.27	12.73
Field Cultivate Fld	24'		1.66	0.92	1.80			0.23	4.61	5.19	9.80
App by Air ( 5 gal)	appl	7.00						0.25	7.25		7.25
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
2,4-D Amine 4	pt	5.46						0.19	5.65		5.65
Select Max	pt	10.87						0.38	11.25		11.25
Valor SX	oz	8.56						0.30	8.86		8.86
Surfactant	pt	2.12						0.07	2.19		2.19
Plant & Pre-Folding	12R-30		1.80	2.48	2.57			0.18	7.03	7.46	14.49
Soybean Seed RR2	lb	69.50						1.82	71.32		71.32
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Soybeans Consultant	acre	6.50						0.14	6.64		6.64
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Prefix	pt	11.38						0.25	11.63		11.63
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Zidua DF	oz	12.35						0.27	12.62		12.62
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	5.69						0.05	5.74		5.74
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	11.34						0.05	11.39		11.39
Grain Cart Soybean	700 bu		0.57	0.36	0.61			0.01	1.55	1.44	2.99
<b>TOTALS</b>		<b>314.60</b>	<b>12.08</b>	<b>10.84</b>	<b>12.90</b>	<b>0.00</b>	<b>10.47</b>	<b>360.89</b>	<b>41.70</b>	<b>402.59</b>	

Note: Cost of production estimates are based on 2019 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, 2020

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	403.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	29.37	0.00	25.84	32.69	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	0.00	13.69	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.00	0.00	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	5.35	0.00	0.00	0.00	0.00	0.00	2.57	1.90	0.00	0.00	0.00	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	4.93	0.00	0.00	0.00	0.00	0.00	1.80	1.50	0.00	0.00	0.00	3.85
REPAIR & MAINTENANCE	2.88	0.00	0.00	0.00	0.00	0.00	2.48	0.82	0.00	0.00	0.00	4.66
INTEREST ON OP. CAP.	4.75	0.00	0.00	0.00	1.35	0.00	2.95	0.96	0.00	0.00	0.36	0.10
TOTAL DIRECT EXPENSES	95.40	0.00	0.00	0.00	39.84	0.00	115.50	44.37	0.00	0.00	42.75	23.03
NET INCOME	-95.40	0.00	0.00	0.00	-39.84	0.00	-115.50	-44.37	0.00	0.00	-42.75	380.17
NET INCOME TO DATE	-95.40	-95.40	-95.40	-95.40	-135.24	-135.24	-250.74	-295.11	-295.11	-295.11	-337.86	42.31

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-203 -245	-193 -235	-183 -225	-173 -215	-163 -205	-153 -195	-143 -185	-133 -175	-123 -165	-113 -154	-103 -144
60	25.20	bu	-174 -216	-162 -204	-150 -192	-138 -180	-126 -168	-114 -156	-102 -144	-90 -131	-78 -119	-66 -107	-53 -95
70	29.40	bu	-145 -187	-131 -173	-117 -159	-103 -145	-89 -131	-75 -116	-61 -102	-47 -88	-32 -74	-18 -60	-4 -46
80	33.60	bu	-116 -158	-100 -142	-84 -126	-68 -110	-52 -93	-36 -77	-19 -61	-3 -45	12 -29	28 -13	44 2
90	37.80	bu	-87 -129	-69 -111	-51 -93	-33 -74	-15 -56	3 -38	21 -20	39 -2	57 15	75 34	93 52
100	42.00	bu	-58 -100	-38 -80	-18 -59	1 -39	22 -19	42 0	62 20	82 40	102 61	122 81	143 101
110	46.20	bu	-29 -71	-7 -48	14 -26	37 -4	59 17	81 39	103 61	125 84	148 106	170 128	192 150
120	50.40	bu	-0 -41	23 -17	48 6	72 30	96 54	120 78	144 103	169 127	193 151	217 175	241 199
130	54.60	bu	28 -12	55 13	81 39	107 65	133 91	159 118	186 144	212 170	238 196	264 222	290 249
140	58.80	bu	57 16	86 44	114 72	142 100	170 129	199 157	227 185	255 213	283 242	311 270	340 298
150	63.00	bu	87 45	117 75	147 105	177 136	207 166	238 196	268 226	298 256	328 287	359 317	389 347

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.  
 Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	5.0000	35.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.39	50.0000	69.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.1000	5.84	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.4897	7.46	_____
Harvesters	hour	15.22	0.0851	1.30	_____
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	15.24	0.4466	6.81	_____
DIESEL FUEL					
Tractors	gal	2.30	5.4882	12.62	_____
Harvesters	gal	2.30	1.4243	3.28	_____
Roll-Out Pipe Irr.	gal	2.30	7.3316	16.86	_____
REPAIR & MAINTENANCE					
Implements	acre	6.03	1.0000	6.03	_____
Tractors	acre	3.33	1.0000	3.33	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	11.79	1.0000	11.79	_____
TOTAL DIRECT EXPENSES				435.37	_____
FIXED EXPENSES					
Implements	acre	14.89	1.0000	14.89	_____
Tractors	acre	22.70	1.0000	22.70	_____
Harvesters	acre	14.41	1.0000	14.41	_____
Roll-Out Pipe Irr.	acre	60.69	1.0000	60.69	_____
TOTAL FIXED EXPENSES				112.69	_____
TOTAL SPECIFIED EXPENSES				548.06	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	60.0000	576.00	_____
				-----	
TOTAL INCOME				576.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	35.00	1.0000	35.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	87.90	1.0000	87.90	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	_____
SEED/PLANTS	acre	69.50	1.0000	69.50	_____
ADJUVANTS	acre	5.83	1.0000	5.83	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.5748	8.76	_____
UNALLOCATED LABOR	hour	15.24	0.4466	6.81	_____
DIESEL FUEL	gal	2.30	14.2442	32.76	_____
REPAIR & MAINTENANCE	acre	19.65	1.0000	19.65	_____
INTEREST ON OP. CAP.	acre	11.79	1.0000	11.79	_____
				-----	
TOTAL DIRECT EXPENSES				435.37	_____
RETURNS ABOVE DIRECT EXPENSES				140.63	_____
				-----	
TOTAL FIXED EXPENSES				112.69	_____
				-----	
TOTAL SPECIFIED EXPENSES				548.06	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				27.94	_____

Note: Cost of production estimates are based on 2019 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, 2020

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-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
App by Air ( 5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
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 DF	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							0.57	0.57	1.03	0.44

Note: Cost of production estimates are based on 2019 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, 2020

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						0.17	3.50		3.50
Subsoiler	3 shank		1.09	0.37	1.18			0.14	2.78	2.19	4.97
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Disk Harrow	24'		2.18	1.59	2.37			0.32	6.46	6.27	12.73
Field Cultivate Fld	24'		1.66	0.92	1.80			0.23	4.61	5.19	9.80
Bed/Lister-Roll-Fo	12R-30		2.15	1.30	2.34			0.30	6.09	6.00	12.09
App by Air ( 5 gal)	appl	7.00						0.25	7.25		7.25
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
2,4-D Amine 4	pt	5.46						0.19	5.65		5.65
Select Max	pt	10.87						0.38	11.25		11.25
Valor SX	oz	8.56						0.30	8.86		8.86
Surfactant	pt	2.12						0.07	2.19		2.19
Plant & Pre-Folding	12R-30		1.80	2.48	2.57			0.18	7.03	7.46	14.49
Soybean Seed RR2	lb	69.50						1.82	71.32		71.32
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Soybeans Consultant	acre	6.50						0.14	6.64		6.64
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Prefix	pt	11.38						0.25	11.63		11.63
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Zidua DF	oz	12.35						0.27	12.62		12.62
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Quadris Top SBX	oz	16.52						0.22	16.74		16.74
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	5.69						0.05	5.74		5.74
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	16.20						0.07	16.27		16.27
Grain Cart Soybean	700 bu		0.57	0.36	0.61			0.01	1.55	1.44	2.99
Roll-Out Pipe Irr.	acre	7.92	18.53	7.51	4.50			0.68	39.14	64.99	104.13
TOTALS		351.43	32.76	19.65	19.74	0.00	11.79	435.37	112.69	548.06	

Note: Cost of production estimates are based on 2019 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, 2020

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	576.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	16.52	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	29.37	0.00	25.84	32.69	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	0.00	13.69	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.00	0.00	0.53	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	8.27	0.00	0.00	0.00	0.00	0.00	2.57	2.13	2.83	0.23	0.00	3.71
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	7.93	0.00	0.00	0.00	0.00	0.00	1.80	1.50	11.68	5.62	0.00	4.23
REPAIR & MAINTENANCE	4.48	0.00	0.00	0.00	0.00	0.00	2.48	0.82	5.75	1.31	0.00	4.81
INTEREST ON OP. CAP.	5.14	0.00	0.00	0.00	1.35	0.00	2.95	0.97	0.48	0.41	0.36	0.13
TOTAL DIRECT EXPENSES	103.31	0.00	0.00	0.00	39.84	0.00	115.50	44.61	28.66	31.62	42.75	29.08
NET INCOME	-103.31	0.00	0.00	0.00	-39.84	0.00	-115.50	-44.61	-28.66	-31.62	-42.75	546.92
NET INCOME TO DATE	-103.31	-103.31	-103.31	-103.31	-143.15	-143.15	-258.65	-303.26	-331.92	-363.54	-406.29	140.63

Note: Cost of production estimates are based on 2019 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, 2020

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
	PRODUCT PRICE												
Soybeans	7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00		
PERCENT	YIELD	UNIT	dollars										
50	30.00	bu	-211 -323	-196 -309	-182 -295	-168 -280	-153 -266	-139 -251	-124 -237	-110 -223	-96 -208	-81 -194	-67 -179
60	36.00	bu	-169 -282	-152 -265	-135 -247	-117 -230	-100 -213	-83 -195	-65 -178	-48 -161	-31 -144	-14 -126	3 -109
70	42.00	bu	-128 -240	-107 -220	-87 -200	-67 -180	-47 -160	-27 -139	-7 -119	13 -99	33 -79	53 -59	73 -39
80	48.00	bu	-86 -199	-63 -176	-40 -153	-17 -130	5 -107	28 -84	51 -60	74 -37	97 -14	120 8	143 31
90	54.00	bu	-44 -157	-19 -131	6 -105	32 -79	58 -53	84 -28	110 -2	136 23	162 49	188 75	214 101
100	60.00	bu	-3 -116	25 -87	54 -58	83 -29	111 -0	140 27	169 56	198 85	227 114	255 143	284 171
110	66.00	bu	38 -74	69 -42	101 -11	133 20	164 52	196 83	228 115	259 147	291 178	323 210	355 242
120	72.00	bu	79 -32	114 1	148 36	183 70	218 105	252 139	287 174	321 209	356 243	390 278	425 312
130	78.00	bu	121 8	158 46	196 83	233 120	271 158	308 195	345 233	383 270	420 308	458 345	495 383
140	84.00	bu	162 50	203 90	243 130	283 171	324 211	364 251	404 292	445 332	485 372	525 413	566 453
150	90.00	bu	204 91	247 135	290 178	334 221	377 264	420 307	463 351	506 394	550 437	593 480	636 523

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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.39	50.0000	69.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.1000	5.84	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.4582	6.96	_____
Harvesters	hour	15.22	0.0851	1.30	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR					
	hour	15.26	0.3065	4.68	_____
DIESEL FUEL					
Tractors	gal	2.30	4.3236	9.93	_____
Harvesters	gal	2.30	1.4243	3.28	_____
Contour Flood Irr.	gal	2.30	10.9974	25.29	_____
REPAIR & MAINTENANCE					
Implements	acre	5.04	1.0000	5.04	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	11.07	1.0000	11.07	_____
TOTAL DIRECT EXPENSES				410.16	_____
FIXED EXPENSES					
Implements	acre	10.59	1.0000	10.59	_____
Tractors	acre	17.18	1.0000	17.18	_____
Harvesters	acre	14.41	1.0000	14.41	_____
Contour Flood Irr.	acre	47.45	1.0000	47.45	_____
TOTAL FIXED EXPENSES				89.63	_____
TOTAL SPECIFIED EXPENSES				499.79	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	53.0000	508.80	_____
				-----	
TOTAL INCOME				508.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	70.09	1.0000	70.09	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
SEED/PLANTS	acre	69.50	1.0000	69.50	_____
ADJUVANTS	acre	5.83	1.0000	5.83	_____
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	14.32	1.0000	14.32	_____
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	15.22	0.5433	8.26	_____
UNALLOCATED LABOR	hour	15.26	0.3065	4.68	_____
DIESEL FUEL	gal	2.30	16.7455	38.50	_____
REPAIR & MAINTENANCE	acre	24.77	1.0000	24.77	_____
INTEREST ON OP. CAP.	acre	11.07	1.0000	11.07	_____
				-----	
TOTAL DIRECT EXPENSES				410.16	_____
RETURNS ABOVE DIRECT EXPENSES				98.64	_____
TOTAL FIXED EXPENSES				89.63	_____
				-----	
TOTAL SPECIFIED EXPENSES				499.79	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				9.01	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 2019 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, 2020

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						0.17	3.50		3.50
Disk Harrow	24'		1.84	1.49	2.37			0.30	6.00	5.61	11.61
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Spray (Broadcast)	60'		0.75	0.41	0.95			0.08	2.19	1.63	3.82
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
Select Max	pt	10.87						0.43	11.30		11.30
Surfactant	pt	2.12						0.08	2.20		2.20
Valor SX	oz	8.56						0.34	8.90		8.90
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.52	2.40	2.57			0.17	6.66	6.91	13.57
Soybean Seed RR2	lb	69.50						1.82	71.32		71.32
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.05	2.01	1.40	3.41
Glyphosate 3lbs a.e	oz	4.48						0.12	4.60		4.60
Prefix	pt	11.38						0.30	11.68		11.68
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40	3.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
App by Air ( 5 gal)	appl	7.00						0.12	7.12		7.12
Quadris Top SBX	oz	16.52						0.29	16.81		16.81
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	14.31						0.06	14.37		14.37
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26	2.70
Contour Flood Irr.	acre	2.25	29.37	15.07	5.89			0.94	53.52	55.53	109.05
<b>TOTALS</b>		<b>319.06</b>	<b>38.50</b>	<b>24.77</b>	<b>16.76</b>	<b>0.00</b>	<b>11.07</b>	<b>410.16</b>	<b>89.63</b>	<b>499.79</b>	

Note: Cost of production estimates are based on 2019 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, 2020

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	508.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	7.00	14.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	16.52	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	23.91	0.00	0.00	41.70	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	5.69	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	2.12	0.00	0.00	2.12	0.00	0.53	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	2.37	0.00	0.00	0.95	0.00	0.00	3.97	2.86	1.67	1.67	0.19	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.84	0.00	0.00	0.75	0.00	0.00	2.15	10.55	9.60	9.60	0.25	3.76
REPAIR & MAINTENANCE	1.49	0.00	0.00	0.41	0.00	0.00	2.78	9.39	2.99	2.99	0.08	4.64
INTEREST ON OP. CAP.	4.36	0.00	0.00	1.11	0.00	0.00	3.59	0.64	0.66	0.35	0.25	0.11
TOTAL DIRECT EXPENSES	87.55	0.00	0.00	29.25	0.00	0.00	140.55	30.17	38.97	27.30	30.47	25.90
NET INCOME	-87.55	0.00	0.00	-29.25	0.00	0.00	-140.55	-30.17	-38.97	-27.30	-30.47	482.90
NET INCOME TO DATE	-87.55	-87.55	-87.55	-116.80	-116.80	-116.80	-257.35	-287.52	-326.49	-353.79	-384.26	98.64

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-212 -301	-199 -289	-186 -276	-174 -263	-161 -250	-148 -238	-135 -225	-123 -212	-110 -200	-97 -187	-84 -174
60	31.80	bu	-175 -265	-160 -249	-144 -234	-129 -219	-114 -204	-99 -188	-83 -173	-68 -158	-53 -142	-38 -127	-22 -112
70	37.10	bu	-138 -228	-120 -210	-103 -192	-85 -174	-67 -157	-49 -139	-31 -121	-14 -103	3 -85	21 -68	39 -50
80	42.40	bu	-102 -191	-81 -171	-61 -150	-40 -130	-20 -110	-0 -89	20 -69	40 -49	60 -28	81 -8	101 11
90	47.70	bu	-65 -154	-42 -132	-19 -109	3 -86	26 -63	49 -40	72 -17	94 5	117 28	140 51	163 74
100	53.00	bu	-28 -118	-3 -92	22 -67	47 -41	73 -16	98 9	124 34	149 59	174 85	200 110	225 136
110	58.30	bu	8 -81	36 -53	64 -25	92 2	120 30	148 58	176 86	204 114	232 142	260 170	288 198
120	63.60	bu	44 -44	75 -14	105 16	136 46	166 77	197 107	228 138	258 168	289 199	319 230	350 260
130	68.90	bu	81 -8	114 25	147 58	180 91	213 124	246 157	280 190	313 223	346 256	379 289	412 322
140	74.20	bu	118 28	153 64	189 99	225 135	260 171	296 206	332 242	367 278	403 313	438 349	474 384
150	79.50	bu	155 65	193 103	231 141	269 179	307 218	345 256	384 294	422 332	460 370	498 408	536 447

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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.82	6.4000	5.25	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.39	50.0000	69.50	_____
ADJUVANTS					
Surfactant	pt	5.31	0.6000	3.19	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.1171	1.78	_____
Harvesters	hour	15.22	0.1021	1.56	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL					
Tractors	gal	2.30	1.3567	3.12	_____
Harvesters	gal	2.30	1.3935	3.21	_____
1/2-mi Pivot Irr.	gal	2.30	16.4057	37.73	_____
REPAIR & MAINTENANCE					
Implements	acre	3.34	1.0000	3.34	_____
Tractors	acre	0.83	1.0000	0.83	_____
Harvesters	acre	3.75	1.0000	3.75	_____
1/2-mi Pivot Irr.	acre	11.79	1.0000	11.79	_____
INTEREST ON OP. CAP.	acre	9.05	1.0000	9.05	_____
TOTAL DIRECT EXPENSES				379.50	_____
FIXED EXPENSES					
Implements	acre	6.37	1.0000	6.37	_____
Tractors	acre	5.66	1.0000	5.66	_____
Harvesters	acre	15.90	1.0000	15.90	_____
1/2-mi Pivot Irr.	acre	46.92	1.0000	46.92	_____
TOTAL FIXED EXPENSES				74.85	_____
TOTAL SPECIFIED EXPENSES				454.35	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	50.0000	480.00	_____
				-----	
TOTAL INCOME				480.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	41.70	1.0000	41.70	_____
INSECTICIDES	acre	34.62	1.0000	34.62	_____
SEED/PLANTS	acre	69.50	1.0000	69.50	_____
ADJUVANTS	acre	3.18	1.0000	3.18	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.2193	3.34	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL	gal	2.30	19.1560	44.06	_____
REPAIR & MAINTENANCE	acre	19.71	1.0000	19.71	_____
INTEREST ON OP. CAP.	acre	9.05	1.0000	9.05	_____
				-----	
TOTAL DIRECT EXPENSES				379.50	_____
RETURNS ABOVE DIRECT EXPENSES				100.50	_____
TOTAL FIXED EXPENSES				74.85	_____
				-----	
TOTAL SPECIFIED EXPENSES				454.35	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				25.65	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 2019 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, 2020

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						0.17	3.50		3.50
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus(46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.80	2.48	2.53			0.15	6.96	7.46	14.42
Soybean Seed RR2	lb	69.50						1.52	71.02		71.02
CruiserMaxx	oz	6.69						0.15	6.84		6.84
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	17.68						0.39	18.07		18.07
Gramoxone SL 2.0	oz	8.16						0.18	8.34		8.34
Surfactant	pt	2.12						0.05	2.17		2.17
Spray (Broadcast)	60'		0.75	0.41	0.93			0.04	2.13	1.63	3.76
Glyphosate 3lbs a.e	oz	4.48						0.08	4.56		4.56
Prefix	pt	11.38						0.20	11.58		11.58
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Quadris Top SBX	oz	16.52						0.22	16.74		16.74
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Prevathon	oz	15.68						0.21	15.89		15.89
Surfactant	pt	0.53						0.01	0.54		0.54
Bifenthrin	oz	5.25						0.07	5.32		5.32
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
Header -Soybean	25' Flex		3.21	4.67	2.90			0.05	10.83	17.40	28.23
Haul Soybeans	bu	13.50						0.06	13.56		13.56
Grain Cart Soybean	700 bu		0.57	0.36	0.60			0.01	1.54	1.44	2.98
1/2-mi Pivot Irr.	acre		37.73	11.79	0.47			0.92	50.91	46.92	97.83
TOTALS		299.25	44.06	19.71	7.43	0.00		9.05	379.50	74.85	454.35

Note: Cost of production estimates are based on 2019 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, 2020

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	480.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	7.00	0.00
FERTILIZERS	52.34	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	6.69	0.00	16.52	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.84	15.86	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	26.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	2.57	0.98	0.04	0.00	3.50
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	13.12	15.84	11.32	0.00	3.78
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.83	1.23	0.62	0.00	5.03
INTEREST ON OP. CAP.	4.06	0.00	0.00	0.00	0.00	0.00	0.18	2.94	0.60	1.02	0.13	0.12
TOTAL DIRECT EXPENSES	81.55	0.00	0.00	0.00	0.00	0.00	7.02	137.16	34.51	78.20	15.13	25.93
NET INCOME	-81.55	0.00	0.00	0.00	0.00	0.00	-7.02	-137.16	-34.51	-78.20	-15.13	454.07
NET INCOME TO DATE	-81.55	-81.55	-81.55	-81.55	-81.55	-81.55	-88.57	-225.73	-260.24	-338.44	-353.57	100.50

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-192 -267	-180 -255	-168 -243	-156 -231	-144 -219	-132 -207	-120 -195	-108 -183	-96 -171	-84 -159	-72 -147
60	30.00	bu	-158 -232	-143 -218	-129 -204	-114 -189	-100 -175	-86 -160	-71 -146	-57 -132	-42 -117	-28 -103	-14 -88
70	35.00	bu	-123 -198	-106 -181	-89 -164	-73 -147	-56 -131	-39 -114	-22 -97	-5 -80	10 -63	27 -47	44 -30
80	40.00	bu	-88 -163	-69 -144	-50 -125	-31 -106	-11 -86	7 -67	26 -48	45 -29	64 -10	84 9	103 28
90	45.00	bu	-54 -128	-32 -107	-10 -85	10 -64	32 -42	53 -20	75 0	97 22	118 43	140 65	161 87
100	50.00	bu	-19 -94	4 -70	28 -46	52 -22	76 1	100 25	124 49	148 73	172 97	196 121	220 145
110	55.00	bu	15 -59	41 -33	67 -6	94 19	120 45	147 72	173 98	199 125	226 151	252 177	279 204
120	60.00	bu	49 -25	78 3	107 32	136 61	164 90	193 118	222 147	251 176	280 205	308 234	337 262
130	65.00	bu	84 9	115 40	146 71	178 103	209 134	240 165	271 196	302 227	334 259	365 290	396 321
140	70.00	bu	119 44	152 77	186 111	219 145	253 178	287 212	320 245	354 279	387 313	421 346	455 380
150	75.00	bu	153 78	189 114	225 150	261 186	297 222	333 258	369 294	405 330	441 366	477 402	513 438

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 2019 input prices.

Table 5.A Estimated costs per acre  
Soybeans, full-season, RR2, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	2.0000	14.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.6600	11.95	_____
Potash (60% K2O)	cwt	27.50	1.0000	27.50	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.39	50.0000	69.50	_____
ADJUVANTS					
Surfactant	pt	5.31	0.6000	3.19	_____
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	43.00	0.3330	14.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.22	0.3128	4.77	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR					
	hour	15.23	0.3734	5.69	_____
DIESEL FUEL					
Tractors	gal	2.30	3.0592	7.02	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	4.91	1.0000	4.91	_____
Tractors	acre	1.86	1.0000	1.86	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	8.23	1.0000	8.23	_____
TOTAL DIRECT EXPENSES				282.57	_____
FIXED EXPENSES					
Implements	acre	10.69	1.0000	10.69	_____
Tractors	acre	12.56	1.0000	12.56	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				39.15	_____
TOTAL SPECIFIED EXPENSES				321.72	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	43.0000	412.80	_____
				-----	
TOTAL INCOME				412.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	14.00	1.0000	14.00	_____
HARVEST AIDS	acre	2.72	1.0000	2.72	_____
FERTILIZERS	acre	39.45	1.0000	39.45	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	56.12	1.0000	56.12	_____
INSECTICIDES	acre	5.69	1.0000	5.69	_____
SEED/PLANTS	acre	69.50	1.0000	69.50	_____
ADJUVANTS	acre	3.18	1.0000	3.18	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1051	0.96	_____
OPERATOR LABOR	hour	15.22	0.4149	6.33	_____
UNALLOCATED LABOR	hour	15.23	0.3734	5.69	_____
DIESEL FUEL	gal	2.30	4.4528	10.23	_____
REPAIR & MAINTENANCE	acre	10.52	1.0000	10.52	_____
INTEREST ON OP. CAP.	acre	8.23	1.0000	8.23	_____
				-----	
TOTAL DIRECT EXPENSES				282.57	_____
RETURNS ABOVE DIRECT EXPENSES				130.23	_____
TOTAL FIXED EXPENSES				39.15	_____
				-----	
TOTAL SPECIFIED EXPENSES				321.72	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				91.08	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 2019 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, 2020

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						0.17	3.50	3.50
Lime (Spread)	ton	14.32						0.75	15.07	15.07
Custom Apply Fert	acre	7.50						0.39	7.89	7.89
Phosphorus(46% P2O5)	cwt	11.95						0.63	12.58	12.58
Potash (60% K2O)	cwt	27.50						1.44	28.94	28.94
Disk Harrow	24'		1.84	1.49	2.37			0.30	6.00	5.61
Field Cultivate Fld	24'		1.40	0.85	1.80			0.21	4.26	4.69
App by Air ( 5 gal)	appl	7.00						0.21	7.21	7.21
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62	4.62
2,4-D Amine 4	pt	5.46						0.17	5.63	5.63
Plant - Folding	12R-30		1.41	2.03	2.39			0.15	5.98	5.99
Soybean Seed RR2	lb	69.50						1.82	71.32	71.32
CruiserMaxx	oz	6.69						0.18	6.87	6.87
Boundary	pt	17.68						0.46	18.14	18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37	8.37
Surfactant	pt	2.12						0.06	2.18	2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58	4.58
Prefix	pt	11.38						0.25	11.63	11.63
Soybeans Consultant	acre	6.50						0.14	6.64	6.64
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58	4.58
Spray (Broadcast)	60'		0.63	0.38	0.95			0.02	1.98	1.40
Acephate 90SP	lb	5.69						0.05	5.74	5.74
App by Air ( 5 gal)	appl	7.00						0.06	7.06	7.06
Gramoxone SL	oz	2.72						0.02	2.74	2.74
Surfactant	pt	1.06						0.01	1.07	1.07
Header -Soybean	25' Flex		3.21	4.67	2.96			0.05	10.89	17.40
Haul Soybeans	bu	11.61						0.05	11.66	11.66
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26
TOTALS		240.61	10.23	10.52	12.98	0.00	8.23	282.57	39.15	321.72

Note: Cost of production estimates are based on 2019 input prices.

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

Table 5.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, RR2, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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	412.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72	0.00
FERTILIZERS	39.45	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.94	25.84	20.34	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	5.69	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.00	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.17	0.00	0.00	0.00	0.00	0.00	2.39	1.90	0.00	0.00	0.95	3.57
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	3.24	0.00	0.00	0.00	0.00	0.00	1.41	1.26	0.00	0.00	0.63	3.69
REPAIR & MAINTENANCE	2.34	0.00	0.00	0.00	0.00	0.00	2.03	0.76	0.00	0.00	0.38	5.01
INTEREST ON OP. CAP.	3.89	0.00	0.00	0.00	0.00	0.52	2.88	0.67	0.00	0.00	0.16	0.11
TOTAL DIRECT EXPENSES	78.24	0.00	0.00	0.00	0.00	17.46	112.86	31.43	0.00	0.00	18.59	23.99
NET INCOME	-78.24	0.00	0.00	0.00	0.00	-17.46	-112.86	-31.43	0.00	0.00	-18.59	388.81
NET INCOME TO DATE	-78.24	-78.24	-78.24	-78.24	-78.24	-95.70	-208.56	-239.99	-239.99	-239.99	-258.58	130.23

Note: Cost of production estimates are based on 2019 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, 2020

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-121	-111	-101	-90	-80	-70	-60	-49	-39	-29	-18
			-161	-150	-140	-130	-119	-109	-99	-88	-78	-68	-57
60	25.80	bu	-92	-79	-67	-54	-42	-30	-17	-5	6	19	31
			-131	-118	-106	-94	-81	-69	-56	-44	-32	-19	-7
70	30.10	bu	-62	-47	-33	-19	-4	9	24	38	53	67	82
			-101	-87	-72	-58	-43	-29	-14	-0	14	28	42
80	34.40	bu	-32	-16	0	16	33	50	66	83	99	116	132
			-71	-55	-38	-22	-5	10	27	43	60	76	93
90	38.70	bu	-2	15	34	52	71	90	108	127	145	164	182
			-41	-23	-4	13	32	50	69	88	106	125	143
100	43.00	bu	27	47	68	88	109	130	150	171	192	212	233
			-12	8	29	49	70	91	111	132	153	173	194
110	47.30	bu	56	79	102	124	147	170	193	215	238	261	283
			17	40	63	85	108	131	153	176	199	222	244
120	51.60	bu	86	111	136	160	185	210	235	259	284	309	334
			47	72	97	121	146	171	196	220	245	270	295
130	55.90	bu	116	143	170	196	223	250	277	304	331	357	384
			77	104	130	157	184	211	238	265	291	318	345
140	60.20	bu	146	175	203	232	261	290	319	348	377	406	435
			107	135	164	193	222	251	280	309	338	367	396
150	64.50	bu	176	206	237	268	299	330	361	392	423	454	485
			136	167	198	229	260	291	322	353	384	415	446

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 2019 input prices.

Table 6.A Estimated costs per acre  
Soybeans, full-season, RR2, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	1.0000	7.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.6600	11.95	_____
Potash (60% K2O)	cwt	27.50	1.0000	27.50	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	10.87	1.0000	10.87	_____
Fierce	oz	7.44	3.5000	26.04	_____
Gramoxone SL 2.0	oz	0.17	96.0000	16.32	_____
Boundary	pt	8.84	2.0000	17.68	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Dimilin 2L	oz	1.91	1.0000	1.91	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Baythroid XL	oz	1.06	1.0650	1.13	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.39	50.0000	69.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.4500	7.70	_____
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	43.00	0.3330	14.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.22	0.4831	7.35	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1523	1.38	_____
UNALLOCATED LABOR	hour	15.24	0.5267	8.03	_____
DIESEL FUEL					
Tractors	gal	2.30	4.8708	11.18	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	6.60	1.0000	6.60	_____
Tractors	acre	2.96	1.0000	2.96	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	7.71	1.0000	7.71	_____
TOTAL DIRECT EXPENSES				343.68	_____
FIXED EXPENSES					
Implements	acre	14.32	1.0000	14.32	_____
Tractors	acre	20.05	1.0000	20.05	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				50.27	_____
TOTAL SPECIFIED EXPENSES				393.95	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	40.0000	384.00	_____
				-----	
TOTAL INCOME				384.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.00	1.0000	7.00	_____
HARVEST AIDS	acre	2.72	1.0000	2.72	_____
FERTILIZERS	acre	39.45	1.0000	39.45	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	95.73	1.0000	95.73	_____
INSECTICIDES	acre	18.72	1.0000	18.72	_____
SEED/PLANTS	acre	69.50	1.0000	69.50	_____
ADJUVANTS	acre	7.69	1.0000	7.69	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1523	1.38	_____
OPERATOR LABOR	hour	15.22	0.5853	8.91	_____
UNALLOCATED LABOR	hour	15.24	0.5267	8.03	_____
DIESEL FUEL	gal	2.30	6.2644	14.39	_____
REPAIR & MAINTENANCE	acre	13.31	1.0000	13.31	_____
INTEREST ON OP. CAP.	acre	7.71	1.0000	7.71	_____
				-----	
TOTAL DIRECT EXPENSES				343.68	_____
RETURNS ABOVE DIRECT EXPENSES				40.32	_____
TOTAL FIXED EXPENSES				50.27	_____
				-----	
TOTAL SPECIFIED EXPENSES				393.95	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-9.95	_____

Note: Cost of production estimates are based on 2019 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, 2020

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-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
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							0.58	0.58	0.73	0.52

Note: Cost of production estimates are based on 2019 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, 2020

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.01	3.34		3.34
Lime (Spread)	ton	14.32						0.06	14.38		14.38
Disk Harrow	24'		1.84	1.49	2.37			0.02	5.72	5.61	11.33
Field Cultivate Fld	24'		1.40	0.85	1.80			0.02	4.07	4.69	8.76
Bed/Lister-Roll-Fo	12R-30		2.15	1.30	2.34			0.03	5.82	6.00	11.82
Spray (Broadcast)	60'		0.63	0.38	0.95			0.08	2.04	1.40	3.44
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
Select Max	pt	10.87						0.43	11.30		11.30
Surfactant	pt	2.12						0.08	2.20		2.20
Custom Apply Fert	acre	7.50						0.23	7.73		7.73
Phosphorus (46% P2O5)	cwt	11.95						0.37	12.32		12.32
Potash (60% K2O)	cwt	27.50						0.84	28.34		28.34
Spray (Broadcast)	60'		0.63	0.38	0.95			0.06	2.02	1.40	3.42
Fierce	oz	26.04						0.80	26.84		26.84
Gramoxone SL 2.0	oz	8.16						0.25	8.41		8.41
Surfactant	pt	2.12						0.06	2.18		2.18
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.52	2.40	2.57			0.17	6.66	6.91	13.57
Soybean Seed RR2	lb	69.50						1.82	71.32		71.32
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.05	2.01	1.40	3.41
Glyphosate 3lbs a.e	oz	4.48						0.12	4.60		4.60
Prefix	pt	11.38						0.30	11.68		11.68
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40	3.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Spray (Broadcast)	60'		0.32	0.18	0.46			0.02	0.98	0.70	1.68
Dimilin 2L	oz	1.91						0.03	1.94		1.94
Surfactant	pt	0.27							0.27		0.27
Spray (Broadcast)	60'		0.63	0.38	0.95			0.03	1.99	1.40	3.39
Prevathon	oz	15.68						0.21	15.89		15.89
Spray (Broadcast)	60'		0.32	0.18	0.46			0.01	0.97	0.70	1.67
Baythroid XL	oz	1.13						0.01	1.14		1.14
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	25' Flex		3.21	4.67	2.96			0.05	10.89	17.40	28.29
Haul Soybeans	bu	10.80						0.05	10.85		10.85
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26	2.70
TOTALS		289.95	14.39	13.31	18.32	0.00	7.71	343.68	50.27	393.95	

Note: Cost of production estimates are based on 2019 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, 2020

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	384.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	39.45	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	15.35	0.00	34.20	41.70	4.48	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	16.81	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	2.12	0.00	2.12	2.12	0.00	0.27	0.00	1.06	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	14.32
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.95	0.00	0.95	3.52	0.95	0.46	1.41	0.00	10.08
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	0.63	0.00	0.63	2.15	0.63	0.32	0.95	0.00	9.08
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.38	0.00	0.38	2.78	0.38	0.18	0.56	0.00	8.65
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.77	0.00	2.61	3.54	0.14	0.05	0.26	0.09	0.25
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.20	0.00	87.84	138.50	6.58	3.19	19.99	10.87	56.51
NET INCOME	0.00	0.00	0.00	-20.20	0.00	-87.84	-138.50	-6.58	-3.19	-19.99	-10.87	327.49
NET INCOME TO DATE	0.00	0.00	0.00	-20.20	-20.20	-108.04	-246.54	-253.12	-256.31	-276.30	-287.17	40.32

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-194	-184	-175	-165	-155	-146	-136	-127	-117	-107	-98
			-244	-234	-225	-215	-206	-196	-186	-177	-167	-158	-148
60	24.00	bu	-166	-155	-143	-131	-120	-108	-97	-85	-74	-62	-51
			-216	-205	-193	-182	-170	-159	-147	-136	-124	-113	-101
70	28.00	bu	-138	-125	-111	-98	-85	-71	-58	-44	-31	-17	-4
			-189	-175	-162	-148	-135	-121	-108	-95	-81	-68	-54
80	32.00	bu	-111	-95	-80	-65	-49	-34	-18	-3	11	27	42
			-161	-146	-130	-115	-99	-84	-69	-53	-38	-23	-7
90	36.00	bu	-83	-66	-48	-31	-14	3	20	37	54	72	89
			-133	-116	-99	-81	-64	-47	-29	-12	4	21	39
100	40.00	bu	-55	-36	-17	1	21	40	59	78	97	117	136
			-105	-86	-67	-48	-29	-9	9	28	47	66	86
110	44.00	bu	-27	-6	14	35	56	77	98	119	140	162	183
			-78	-57	-35	-14	6	27	48	69	90	111	132
120	48.00	bu	-0	22	45	68	91	114	137	161	184	207	230
			-50	-27	-4	18	41	64	87	110	133	156	179
130	52.00	bu	27	52	77	102	127	152	177	202	227	252	277
			-22	2	27	52	77	101	126	151	176	201	226
140	56.00	bu	55	82	108	135	162	189	216	243	270	297	323
			4	31	58	85	112	139	166	193	219	246	273
150	60.00	bu	82	111	140	169	198	226	255	284	313	342	370
			32	61	90	119	147	176	205	234	263	291	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 2019 input prices.

Table 7.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	3.0000	21.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.82	6.4000	5.25	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2	lb	1.39	50.0000	69.50	_____
ADJUVANTS					
Surfactant	pt	5.31	0.5000	2.66	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.1171	1.78	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL					
Tractors	gal	2.30	1.3567	3.12	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	3.34	1.0000	3.34	_____
Tractors	acre	0.83	1.0000	0.83	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	7.78	1.0000	7.78	_____
TOTAL DIRECT EXPENSES				297.44	_____
FIXED EXPENSES					
Implements	acre	6.37	1.0000	6.37	_____
Tractors	acre	5.66	1.0000	5.66	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				27.93	_____
TOTAL SPECIFIED EXPENSES				325.37	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	25.0000	240.00	_____
				-----	
TOTAL INCOME				240.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	21.00	1.0000	21.00	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	41.70	1.0000	41.70	_____
INSECTICIDES	acre	34.62	1.0000	34.62	_____
SEED/PLANTS	acre	69.50	1.0000	69.50	_____
ADJUVANTS	acre	2.65	1.0000	2.65	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.2193	3.34	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL	gal	2.30	2.7503	6.33	_____
REPAIR & MAINTENANCE	acre	7.92	1.0000	7.92	_____
INTEREST ON OP. CAP.	acre	7.78	1.0000	7.78	_____
				-----	
TOTAL DIRECT EXPENSES				297.44	_____
RETURNS ABOVE DIRECT EXPENSES				-57.44	_____
TOTAL FIXED EXPENSES				27.93	_____
				-----	
TOTAL SPECIFIED EXPENSES				325.37	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-85.37	_____

Note: Cost of production estimates are based on 2019 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, 2020

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
<b>TOTALS</b>						-----				
						0.21	0.21	0.30	0.18	

Note: Cost of production estimates are based on 2019 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, 2020

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						0.17	3.50		3.50
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus(46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.80	2.48	2.53			0.15	6.96	7.46	14.42
Soybean Seed RR2	lb	69.50						1.52	71.02		71.02
CruiserMaxx	oz	6.69						0.15	6.84		6.84
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	17.68						0.39	18.07		18.07
Gramoxone SL 2.0	oz	8.16						0.18	8.34		8.34
Surfactant	pt	2.12						0.05	2.17		2.17
Spray (Broadcast)	60'		0.75	0.41	0.93			0.04	2.13	1.63	3.76
Glyphosate 3lbs a.e	oz	4.48						0.08	4.56		4.56
Prefix	pt	11.38						0.20	11.58		11.58
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Prevathon	oz	15.68						0.21	15.89		15.89
Surfactant	pt	0.53						0.01	0.54		0.54
Bifenthrin	oz	5.25						0.07	5.32		5.32
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
Header -Soybean	25' Flex		3.21	4.67	2.90			0.05	10.83	17.40	28.23
Haul Soybeans	bu	6.75						0.03	6.78		6.78
Grain Cart Soybean	700 bu		0.57	0.36	0.60			0.01	1.54	1.44	2.98
TOTALS		268.45	6.33	7.92	6.96	0.00	7.78	297.44	27.93	325.37	

Note: Cost of production estimates are based on 2019 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, 2020

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	240.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	7.00	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.84	15.86	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	26.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.53	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	2.53	0.93	0.00	0.00	3.50
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.75	0.00	0.00	3.78
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48	0.41	0.00	0.00	5.03
INTEREST ON OP. CAP.	4.06	0.00	0.00	0.00	0.00	0.00	0.17	2.47	0.32	0.54	0.13	0.09
TOTAL DIRECT EXPENSES	81.55	0.00	0.00	0.00	0.00	0.00	6.67	114.98	18.27	41.69	15.13	19.15
NET INCOME	-81.55	0.00	0.00	0.00	0.00	0.00	-6.67	-114.98	-18.27	-41.69	-15.13	220.85
NET INCOME TO DATE	-81.55	-81.55	-81.55	-81.55	-81.55	-81.55	-88.22	-203.20	-221.47	-263.16	-278.29	-57.44

Note: Cost of production estimates are based on 2019 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, 2020

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-204	-198	-192	-186	-180	-174	-168	-162	-156	-150	-144
			-231	-225	-219	-213	-207	-201	-195	-189	-183	-177	-171
60	15.00	bu	-186	-179	-172	-165	-157	-150	-143	-136	-129	-121	-114
			-214	-207	-200	-193	-185	-178	-171	-164	-157	-149	-142
70	17.50	bu	-169	-161	-152	-144	-135	-127	-119	-110	-102	-93	-85
			-197	-188	-180	-172	-163	-155	-146	-138	-130	-121	-113
80	20.00	bu	-152	-142	-132	-123	-113	-104	-94	-84	-75	-65	-56
			-180	-170	-160	-151	-141	-132	-122	-112	-103	-93	-84
90	22.50	bu	-134	-123	-113	-102	-91	-80	-69	-59	-48	-37	-26
			-162	-151	-141	-130	-119	-108	-97	-87	-76	-65	-54
100	25.00	bu	-117	-105	-93	-81	-69	-57	-45	-33	-21	-9	2
			-145	-133	-121	-109	-97	-85	-73	-61	-49	-37	-25
110	27.50	bu	-100	-86	-73	-60	-47	-34	-20	-7	5	18	31
			-128	-114	-101	-88	-75	-62	-48	-35	-22	-9	3
120	30.00	bu	-82	-68	-53	-39	-25	-10	3	18	32	46	61
			-110	-96	-81	-67	-53	-38	-24	-9	4	18	33
130	32.50	bu	-65	-49	-34	-18	-3	12	28	43	59	74	90
			-93	-77	-62	-46	-31	-15	0	15	31	46	62
140	35.00	bu	-48	-31	-14	2	19	35	52	69	86	103	119
			-76	-59	-42	-25	-8	7	24	41	58	75	91
150	37.50	bu	-30	-12	5	23	41	59	77	95	113	131	149
			-58	-40	-22	-4	13	31	49	67	85	103	121

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 2019 input prices.

Table 8.A Estimated costs per acre  
Soybeans, full-season, RR2X, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.32	50.0000	66.00	_____
ADJUVANTS					
Surfactant	pt	5.31	1.0000	5.31	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.3302	5.03	_____
Harvesters	hour	15.22	0.0851	1.30	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR	hour	15.24	0.3738	5.70	_____
DIESEL FUEL					
Tractors	gal	2.30	3.8252	8.80	_____
Harvesters	gal	2.30	1.4243	3.28	_____
REPAIR & MAINTENANCE					
Implements	acre	5.10	1.0000	5.10	_____
Tractors	acre	2.34	1.0000	2.34	_____
Harvesters	acre	3.40	1.0000	3.40	_____
INTEREST ON OP. CAP.	acre	10.38	1.0000	10.38	_____
TOTAL DIRECT EXPENSES				357.30	_____
FIXED EXPENSES					
Implements	acre	11.35	1.0000	11.35	_____
Tractors	acre	15.94	1.0000	15.94	_____
Harvesters	acre	14.41	1.0000	14.41	_____
TOTAL FIXED EXPENSES				41.70	_____
TOTAL SPECIFIED EXPENSES				399.00	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	42.0000	403.20	_____
				-----	
TOTAL INCOME				403.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	87.90	1.0000	87.90	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
SEED/PLANTS	acre	66.00	1.0000	66.00	_____
ADJUVANTS	acre	5.30	1.0000	5.30	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.4154	6.33	_____
UNALLOCATED LABOR	hour	15.24	0.3738	5.70	_____
DIESEL FUEL	gal	2.30	5.2496	12.08	_____
REPAIR & MAINTENANCE	acre	10.84	1.0000	10.84	_____
INTEREST ON OP. CAP.	acre	10.38	1.0000	10.38	_____
				-----	
TOTAL DIRECT EXPENSES				357.30	_____
RETURNS ABOVE DIRECT EXPENSES				45.90	_____
TOTAL FIXED EXPENSES				41.70	_____
				-----	
TOTAL SPECIFIED EXPENSES				399.00	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				4.20	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 DF	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 2019 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, 2020

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						0.17	3.50		3.50
Subsoiler	3 shank		1.09	0.37	1.18			0.14	2.78	2.19	4.97
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Disk Harrow	24'		2.18	1.59	2.37			0.32	6.46	6.27	12.73
Field Cultivate Fld	24'		1.66	0.92	1.80			0.23	4.61	5.19	9.80
App by Air ( 5 gal)	appl	7.00						0.25	7.25		7.25
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
2,4-D Amine 4	pt	5.46						0.19	5.65		5.65
Select Max	pt	10.87						0.38	11.25		11.25
Valor SX	oz	8.56						0.30	8.86		8.86
Surfactant	pt	2.12						0.07	2.19		2.19
Plant & Pre-Folding	12R-30		1.80	2.48	2.57			0.18	7.03	7.46	14.49
Soybean Seed RR2X	lb	66.00						1.73	67.73		67.73
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Soybeans Consultant	acre	6.50						0.14	6.64		6.64
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Prefix	pt	11.38						0.25	11.63		11.63
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Zidua DF	oz	12.35						0.27	12.62		12.62
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	5.69						0.05	5.74		5.74
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	11.34						0.05	11.39		11.39
Grain Cart Soybean	700 bu		0.57	0.36	0.61			0.01	1.55	1.44	2.99
<b>TOTALS</b>		<b>311.10</b>	<b>12.08</b>	<b>10.84</b>	<b>12.90</b>	<b>0.00</b>	<b>10.38</b>	<b>357.30</b>	<b>41.70</b>	<b>399.00</b>	

Note: Cost of production estimates are based on 2019 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, 2020

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	403.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	29.37	0.00	25.84	32.69	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	0.00	13.69	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.00	0.00	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	5.35	0.00	0.00	0.00	0.00	0.00	2.57	1.90	0.00	0.00	0.00	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	4.93	0.00	0.00	0.00	0.00	0.00	1.80	1.50	0.00	0.00	0.00	3.85
REPAIR & MAINTENANCE	2.88	0.00	0.00	0.00	0.00	0.00	2.48	0.82	0.00	0.00	0.00	4.66
INTEREST ON OP. CAP.	4.75	0.00	0.00	0.00	1.35	0.00	2.86	0.96	0.00	0.00	0.36	0.10
TOTAL DIRECT EXPENSES	95.40	0.00	0.00	0.00	39.84	0.00	111.91	44.37	0.00	0.00	42.75	23.03
NET INCOME	-95.40	0.00	0.00	0.00	-39.84	0.00	-111.91	-44.37	0.00	0.00	-42.75	380.17
NET INCOME TO DATE	-95.40	-95.40	-95.40	-95.40	-135.24	-135.24	-247.15	-291.52	-291.52	-291.52	-334.27	45.90

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-200 -242	-190 -232	-180 -221	-170 -211	-160 -201	-150 -191	-139 -181	-129 -171	-119 -161	-109 -151	-99 -141
60	25.20	bu	-171 -213	-159 -200	-147 -188	-135 -176	-122 -164	-110 -152	-98 -140	-86 -128	-74 -116	-62 -104	-50 -92
70	29.40	bu	-142 -183	-128 -169	-113 -155	-99 -141	-85 -127	-71 -113	-57 -99	-43 -85	-29 -71	-15 -56	-1 -42
80	33.60	bu	-113 -154	-96 -138	-80 -122	-64 -106	-48 -90	-32 -74	-16 -58	-0 -41	15 -25	32 -9	48 6
90	37.80	bu	-84 -125	-65 -107	-47 -89	-29 -71	-11 -53	6 -34	24 -16	43 1	61 19	79 37	97 55
100	42.00	bu	-54 -96	-34 -76	-14 -56	5 -36	25 -15	45 4	66 24	86 44	106 64	126 84	146 105
110	46.20	bu	-25 -67	-3 -45	18 -23	40 -0	62 21	85 43	107 65	129 87	151 109	173 132	195 154
120	50.40	bu	3 -38	27 -14	51 9	75 34	100 58	124 82	148 106	172 130	196 155	221 179	245 203
130	54.60	bu	32 -9	58 16	84 43	111 69	137 95	163 121	189 147	215 174	242 200	268 226	294 252
140	58.80	bu	61 19	89 48	117 76	146 104	174 132	202 160	230 189	259 217	287 245	315 273	343 302
150	63.00	bu	90 48	120 79	151 109	181 139	211 169	241 200	272 230	302 260	332 290	362 321	393 351

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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	5.0000	35.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.32	50.0000	66.00	_____
ADJUVANTS					
Surfactant	pt	5.31	1.1000	5.84	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.4897	7.46	_____
Harvesters	hour	15.22	0.0851	1.30	_____
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	15.24	0.4466	6.81	_____
DIESEL FUEL					
Tractors	gal	2.30	5.4882	12.62	_____
Harvesters	gal	2.30	1.4243	3.28	_____
Roll-Out Pipe Irr.	gal	2.30	7.3316	16.86	_____
REPAIR & MAINTENANCE					
Implements	acre	6.03	1.0000	6.03	_____
Tractors	acre	3.33	1.0000	3.33	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	11.70	1.0000	11.70	_____
TOTAL DIRECT EXPENSES				431.78	_____
FIXED EXPENSES					
Implements	acre	14.89	1.0000	14.89	_____
Tractors	acre	22.70	1.0000	22.70	_____
Harvesters	acre	14.41	1.0000	14.41	_____
Roll-Out Pipe Irr.	acre	60.69	1.0000	60.69	_____
TOTAL FIXED EXPENSES				112.69	_____
TOTAL SPECIFIED EXPENSES				544.47	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	60.0000	576.00	_____
				-----	
TOTAL INCOME				576.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	35.00	1.0000	35.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	87.90	1.0000	87.90	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	_____
SEED/PLANTS	acre	66.00	1.0000	66.00	_____
ADJUVANTS	acre	5.83	1.0000	5.83	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.5748	8.76	_____
UNALLOCATED LABOR	hour	15.24	0.4466	6.81	_____
DIESEL FUEL	gal	2.30	14.2442	32.76	_____
REPAIR & MAINTENANCE	acre	19.65	1.0000	19.65	_____
INTEREST ON OP. CAP.	acre	11.70	1.0000	11.70	_____
				-----	
TOTAL DIRECT EXPENSES				431.78	_____
RETURNS ABOVE DIRECT EXPENSES				144.22	_____
				-----	
TOTAL FIXED EXPENSES				112.69	_____
				-----	
TOTAL SPECIFIED EXPENSES				544.47	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				31.53	_____

Note: Cost of production estimates are based on 2019 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, 2020

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-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
App by Air ( 5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
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 DF	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							0.57	0.57	1.03	0.44

Note: Cost of production estimates are based on 2019 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, 2020

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						0.17	3.50		3.50
Subsoiler	3 shank		1.09	0.37	1.18			0.14	2.78	2.19	4.97
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Disk Harrow	24'		2.18	1.59	2.37			0.32	6.46	6.27	12.73
Field Cultivate Fld	24'		1.66	0.92	1.80			0.23	4.61	5.19	9.80
Bed/Lister-Roll-Fo	12R-30		2.15	1.30	2.34			0.30	6.09	6.00	12.09
App by Air ( 5 gal)	appl	7.00						0.25	7.25		7.25
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
2,4-D Amine 4	pt	5.46						0.19	5.65		5.65
Select Max	pt	10.87						0.38	11.25		11.25
Valor SX	oz	8.56						0.30	8.86		8.86
Surfactant	pt	2.12						0.07	2.19		2.19
Plant & Pre-Folding	12R-30		1.80	2.48	2.57			0.18	7.03	7.46	14.49
Soybean Seed RR2X	lb	66.00						1.73	67.73		67.73
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Soybeans Consultant	acre	6.50						0.14	6.64		6.64
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Prefix	pt	11.38						0.25	11.63		11.63
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
Zidua DF	oz	12.35						0.27	12.62		12.62
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Quadris Top SBX	oz	16.52						0.22	16.74		16.74
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	5.69						0.05	5.74		5.74
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	16.20						0.07	16.27		16.27
Grain Cart Soybean	700 bu		0.57	0.36	0.61			0.01	1.55	1.44	2.99
Roll-Out Pipe Irr.	acre	7.92	18.53	7.51	4.50			0.68	39.14	64.99	104.13
TOTALS		347.93	32.76	19.65	19.74	0.00	11.70	431.78	112.69	544.47	

Note: Cost of production estimates are based on 2019 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, 2020

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	576.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	16.52	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	29.37	0.00	25.84	32.69	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	0.00	13.69	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.00	0.00	0.53	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	8.27	0.00	0.00	0.00	0.00	0.00	2.57	2.13	2.83	0.23	0.00	3.71
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	7.93	0.00	0.00	0.00	0.00	0.00	1.80	1.50	11.68	5.62	0.00	4.23
REPAIR & MAINTENANCE	4.48	0.00	0.00	0.00	0.00	0.00	2.48	0.82	5.75	1.31	0.00	4.81
INTEREST ON OP. CAP.	5.14	0.00	0.00	0.00	1.35	0.00	2.86	0.97	0.48	0.41	0.36	0.13
TOTAL DIRECT EXPENSES	103.31	0.00	0.00	0.00	39.84	0.00	111.91	44.61	28.66	31.62	42.75	29.08
NET INCOME	-103.31	0.00	0.00	0.00	-39.84	0.00	-111.91	-44.61	-28.66	-31.62	-42.75	546.92
NET INCOME TO DATE	-103.31	-103.31	-103.31	-103.31	-143.15	-143.15	-255.06	-299.67	-328.33	-359.95	-402.70	144.22

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-207 -320	-193 -305	-178 -291	-164 -277	-150 -262	-135 -248	-121 -233	-106 -219	-92 -205	-78 -190	-63 -176
60	36.00	bu	-166 -278	-148 -261	-131 -244	-114 -226	-96 -209	-79 -192	-62 -175	-45 -157	-27 -140	-10 -123	6 -105
70	42.00	bu	-124 -237	-104 -217	-84 -196	-64 -176	-43 -156	-23 -136	-3 -116	16 -96	36 -75	56 -55	77 -35
80	48.00	bu	-82 -195	-59 -172	-36 -149	-13 -126	9 -103	32 -80	55 -57	78 -34	101 -11	124 11	147 34
90	54.00	bu	-41 -154	-15 -128	10 -102	36 -76	62 -50	88 -24	114 1	140 27	166 53	191 79	217 105
100	60.00	bu	0 -112	29 -83	57 -54	86 -26	115 2	144 31	173 60	201 89	230 117	259 146	288 175
110	66.00	bu	41 -70	73 -39	105 -7	136 24	168 55	200 87	231 119	263 150	295 182	326 214	358 245
120	72.00	bu	83 -29	117 5	152 39	187 74	221 108	256 143	290 178	325 212	359 247	394 281	428 316
130	78.00	bu	124 12	162 49	199 87	237 124	274 162	312 199	349 236	387 274	424 311	461 349	499 386
140	84.00	bu	166 53	206 94	247 134	287 174	327 215	368 255	408 295	448 336	489 376	529 416	569 457
150	90.00	bu	208 95	251 138	294 181	337 224	380 268	424 311	467 354	510 397	553 440	596 484	640 527

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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.32	50.0000	66.00	_____
ADJUVANTS					
Surfactant	pt	5.31	1.1000	5.84	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.4582	6.96	_____
Harvesters	hour	15.22	0.0851	1.30	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR					
	hour	15.26	0.3065	4.68	_____
DIESEL FUEL					
Tractors	gal	2.30	4.3236	9.93	_____
Harvesters	gal	2.30	1.4243	3.28	_____
Contour Flood Irr.	gal	2.30	10.9974	25.29	_____
REPAIR & MAINTENANCE					
Implements	acre	5.04	1.0000	5.04	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	10.98	1.0000	10.98	_____
TOTAL DIRECT EXPENSES				406.57	_____
FIXED EXPENSES					
Implements	acre	10.59	1.0000	10.59	_____
Tractors	acre	17.18	1.0000	17.18	_____
Harvesters	acre	14.41	1.0000	14.41	_____
Contour Flood Irr.	acre	47.45	1.0000	47.45	_____
TOTAL FIXED EXPENSES				89.63	_____
TOTAL SPECIFIED EXPENSES				496.20	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	53.0000	508.80	_____
				-----	
TOTAL INCOME				508.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	70.09	1.0000	70.09	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
SEED/PLANTS	acre	66.00	1.0000	66.00	_____
ADJUVANTS	acre	5.83	1.0000	5.83	_____
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	14.32	1.0000	14.32	_____
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	15.22	0.5433	8.26	_____
UNALLOCATED LABOR	hour	15.26	0.3065	4.68	_____
DIESEL FUEL	gal	2.30	16.7455	38.50	_____
REPAIR & MAINTENANCE	acre	24.77	1.0000	24.77	_____
INTEREST ON OP. CAP.	acre	10.98	1.0000	10.98	_____
				-----	
TOTAL DIRECT EXPENSES				406.57	_____
RETURNS ABOVE DIRECT EXPENSES				102.23	_____
TOTAL FIXED EXPENSES				89.63	_____
				-----	
TOTAL SPECIFIED EXPENSES				496.20	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				12.60	_____

Note: Cost of production estimates are based on 2019 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, 2020

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	
TOTALS							0.54	0.54	0.96	0.30

Note: Cost of production estimates are based on 2019 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, 2020

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						0.17	3.50		3.50
Disk Harrow	24'		1.84	1.49	2.37			0.30	6.00	5.61	11.61
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Spray (Broadcast)	60'		0.75	0.41	0.95			0.08	2.19	1.63	3.82
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
Select Max	pt	10.87						0.43	11.30		11.30
Surfactant	pt	2.12						0.08	2.20		2.20
Valor SX	oz	8.56						0.34	8.90		8.90
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.52	2.40	2.57			0.17	6.66	6.91	13.57
Soybean Seed RR2X	lb	66.00						1.73	67.73		67.73
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.05	2.01	1.40	3.41
Glyphosate 3lbs a.e	oz	4.48						0.12	4.60		4.60
Prefix	pt	11.38						0.30	11.68		11.68
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40	3.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58		4.58
App by Air ( 5 gal)	appl	7.00						0.12	7.12		7.12
Quadris Top SBX	oz	16.52						0.29	16.81		16.81
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	14.31						0.06	14.37		14.37
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26	2.70
Contour Flood Irr.	acre	2.25	29.37	15.07	5.89			0.94	53.52	55.53	109.05
<b>TOTALS</b>		<b>315.56</b>	<b>38.50</b>	<b>24.77</b>	<b>16.76</b>	<b>0.00</b>	<b>10.98</b>	<b>406.57</b>	<b>89.63</b>	<b>496.20</b>	

Note: Cost of production estimates are based on 2019 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, 2020

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	508.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	7.00	14.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	16.52	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	23.91	0.00	0.00	41.70	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	5.69	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	2.12	0.00	0.00	2.12	0.00	0.53	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	2.37	0.00	0.00	0.95	0.00	0.00	3.97	2.86	1.67	1.67	0.19	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.84	0.00	0.00	0.75	0.00	0.00	2.15	10.55	9.60	9.60	0.25	3.76
REPAIR & MAINTENANCE	1.49	0.00	0.00	0.41	0.00	0.00	2.78	9.39	2.99	2.99	0.08	4.64
INTEREST ON OP. CAP.	4.36	0.00	0.00	1.11	0.00	0.00	3.50	0.64	0.66	0.35	0.25	0.11
TOTAL DIRECT EXPENSES	87.55	0.00	0.00	29.25	0.00	0.00	136.96	30.17	38.97	27.30	30.47	25.90
NET INCOME	-87.55	0.00	0.00	-29.25	0.00	0.00	-136.96	-30.17	-38.97	-27.30	-30.47	482.90
NET INCOME TO DATE	-87.55	-87.55	-87.55	-116.80	-116.80	-116.80	-253.76	-283.93	-322.90	-350.20	-380.67	102.23

Note: Cost of production estimates are based on 2019 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, 2020

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00		
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-208	-195	-183	-170	-157	-144	-132	-119	-106	-94	-81
			-298	-285	-272	-260	-247	-234	-221	-209	-196	-183	-171
60	31.80	bu	-171	-156	-141	-126	-110	-95	-80	-65	-49	-34	-19
			-261	-246	-230	-215	-200	-185	-169	-154	-139	-124	-108
70	37.10	bu	-135	-117	-99	-81	-63	-46	-28	-10	7	25	42
			-224	-206	-189	-171	-153	-135	-117	-100	-82	-64	-46
80	42.40	bu	-98	-78	-57	-37	-17	3	23	44	64	84	105
			-188	-167	-147	-126	-106	-86	-65	-45	-25	-4	15
90	47.70	bu	-61	-38	-15	6	29	52	75	98	121	144	167
			-151	-128	-105	-82	-59	-36	-13	8	31	54	77
100	53.00	bu	-24	0	25	51	76	102	127	153	178	203	229
			-114	-89	-63	-38	-12	12	38	63	88	114	139
110	58.30	bu	11	39	67	95	123	151	179	207	235	263	291
			-77	-49	-21	6	34	62	90	118	145	173	201
120	63.60	bu	48	79	109	140	170	201	231	262	292	323	353
			-41	-10	19	50	80	111	142	172	203	233	264
130	68.90	bu	85	118	151	184	217	250	283	316	349	382	415
			-4	28	61	94	127	160	194	227	260	293	326
140	74.20	bu	121	157	193	228	264	300	335	371	406	442	478
			32	67	103	139	174	210	245	281	317	352	388
150	79.50	bu	158	196	234	273	311	349	387	425	463	502	540
			69	107	145	183	221	259	297	336	374	412	450

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.  
 Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.82	6.4000	5.25	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.32	50.0000	66.00	_____
ADJUVANTS					
Surfactant	pt	5.31	0.6000	3.19	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.1171	1.78	_____
Harvesters	hour	15.22	0.1021	1.56	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL					
Tractors	gal	2.30	1.3567	3.12	_____
Harvesters	gal	2.30	1.3935	3.21	_____
1/2-mi Pivot Irr.	gal	2.30	16.4057	37.73	_____
REPAIR & MAINTENANCE					
Implements	acre	3.34	1.0000	3.34	_____
Tractors	acre	0.83	1.0000	0.83	_____
Harvesters	acre	3.75	1.0000	3.75	_____
1/2-mi Pivot Irr.	acre	11.79	1.0000	11.79	_____
INTEREST ON OP. CAP.	acre	8.97	1.0000	8.97	_____
TOTAL DIRECT EXPENSES				375.92	_____
FIXED EXPENSES					
Implements	acre	6.37	1.0000	6.37	_____
Tractors	acre	5.66	1.0000	5.66	_____
Harvesters	acre	15.90	1.0000	15.90	_____
1/2-mi Pivot Irr.	acre	46.92	1.0000	46.92	_____
TOTAL FIXED EXPENSES				74.85	_____
TOTAL SPECIFIED EXPENSES				450.77	_____

Note: Cost of production estimates are based on 2019 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.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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	50.0000	480.00	_____
				-----	
TOTAL INCOME				480.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	41.70	1.0000	41.70	_____
INSECTICIDES	acre	34.62	1.0000	34.62	_____
SEED/PLANTS	acre	66.00	1.0000	66.00	_____
ADJUVANTS	acre	3.18	1.0000	3.18	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.2193	3.34	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL	gal	2.30	19.1560	44.06	_____
REPAIR & MAINTENANCE	acre	19.71	1.0000	19.71	_____
INTEREST ON OP. CAP.	acre	8.97	1.0000	8.97	_____
				-----	
TOTAL DIRECT EXPENSES				375.92	_____
RETURNS ABOVE DIRECT EXPENSES				104.08	_____
TOTAL FIXED EXPENSES				74.85	_____
				-----	
TOTAL SPECIFIED EXPENSES				450.77	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				29.23	_____

Note: Cost of production estimates are based on 2019 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.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, 2020

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 2019 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, 2020

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						0.17	3.50		3.50
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus(46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.80	2.48	2.53			0.15	6.96	7.46	14.42
Soybean Seed RR2X	lb	66.00						1.44	67.44		67.44
CruiserMaxx	oz	6.69						0.15	6.84		6.84
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	17.68						0.39	18.07		18.07
Gramoxone SL 2.0	oz	8.16						0.18	8.34		8.34
Surfactant	pt	2.12						0.05	2.17		2.17
Spray (Broadcast)	60'		0.75	0.41	0.93			0.04	2.13	1.63	3.76
Glyphosate 3lbs a.e	oz	4.48						0.08	4.56		4.56
Prefix	pt	11.38						0.20	11.58		11.58
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Quadris Top SBX	oz	16.52						0.22	16.74		16.74
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Prevathon	oz	15.68						0.21	15.89		15.89
Surfactant	pt	0.53						0.01	0.54		0.54
Bifenthrin	oz	5.25						0.07	5.32		5.32
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
Header -Soybean	25' Flex		3.21	4.67	2.90			0.05	10.83	17.40	28.23
Haul Soybeans	bu	13.50						0.06	13.56		13.56
Grain Cart Soybean	700 bu		0.57	0.36	0.60			0.01	1.54	1.44	2.98
1/2-mi Pivot Irr.	acre		37.73	11.79	0.47			0.92	50.91	46.92	97.83
TOTALS		295.75	44.06	19.71	7.43	0.00		8.97	375.92	74.85	450.77

Note: Cost of production estimates are based on 2019 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, 2020

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	480.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	7.00	0.00
FERTILIZERS	52.34	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	6.69	0.00	16.52	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.84	15.86	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	26.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	2.57	0.98	0.04	0.00	3.50
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	13.12	15.84	11.32	0.00	3.78
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.83	1.23	0.62	0.00	5.03
INTEREST ON OP. CAP.	4.06	0.00	0.00	0.00	0.00	0.00	0.18	2.86	0.60	1.02	0.13	0.12
TOTAL DIRECT EXPENSES	81.55	0.00	0.00	0.00	0.00	0.00	7.02	133.58	34.51	78.20	15.13	25.93
NET INCOME	-81.55	0.00	0.00	0.00	0.00	0.00	-7.02	-133.58	-34.51	-78.20	-15.13	454.07
NET INCOME TO DATE	-81.55	-81.55	-81.55	-81.55	-81.55	-81.55	-88.57	-222.15	-256.66	-334.86	-349.99	104.08

Note: Cost of production estimates are based on 2019 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 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-189 -263	-177 -251	-165 -239	-153 -227	-141 -215	-129 -203	-117 -191	-105 -179	-93 -167	-81 -155	-69 -143
60	30.00	bu	-154 -229	-140 -214	-125 -200	-111 -186	-96 -171	-82 -157	-68 -142	-53 -128	-39 -114	-24 -99	-10 -85
70	35.00	bu	-119 -194	-103 -177	-86 -161	-69 -144	-52 -127	-35 -110	-19 -93	-2 -77	14 -60	31 -43	48 -26
80	40.00	bu	-85 -160	-66 -140	-46 -121	-27 -102	-8 -83	10 -64	29 -44	49 -25	68 -6	87 12	106 31
90	45.00	bu	-50 -125	-28 -103	-7 -82	14 -60	35 -39	57 -17	79 4	100 25	122 47	143 68	165 90
100	50.00	bu	-15 -90	8 -66	32 -42	56 -18	80 5	104 29	128 53	152 77	176 101	200 125	224 149
110	55.00	bu	18 -56	45 -29	71 -3	97 23	124 49	150 75	177 102	203 128	229 155	256 181	282 207
120	60.00	bu	53 -21	82 7	110 36	139 64	168 93	197 122	226 151	254 180	283 208	312 237	341 266
130	65.00	bu	88 13	119 44	150 75	181 106	212 137	244 169	275 200	306 231	337 262	368 293	400 325
140	70.00	bu	122 47	156 81	189 115	223 148	257 182	290 215	324 249	357 283	391 316	425 350	458 383
150	75.00	bu	157 82	193 118	229 154	265 190	301 226	337 262	373 298	409 334	445 370	481 406	517 442

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 2019 input prices.

Table 12.A Estimated costs per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	2.0000	14.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.6600	11.95	_____
Potash (60% K2O)	cwt	27.50	1.0000	27.50	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.32	50.0000	66.00	_____
ADJUVANTS					
Surfactant	pt	5.31	0.6000	3.19	_____
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	43.00	0.3330	14.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.22	0.3128	4.77	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR					
	hour	15.23	0.3734	5.69	_____
DIESEL FUEL					
Tractors	gal	2.30	3.0592	7.02	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	4.91	1.0000	4.91	_____
Tractors	acre	1.86	1.0000	1.86	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	8.14	1.0000	8.14	_____
TOTAL DIRECT EXPENSES				278.98	_____
FIXED EXPENSES					
Implements	acre	10.69	1.0000	10.69	_____
Tractors	acre	12.56	1.0000	12.56	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				39.15	_____
TOTAL SPECIFIED EXPENSES				318.13	_____

Note: Cost of production estimates are based on 2019 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 12.B Summary of estimated costs and returns per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	43.0000	412.80	_____
				-----	
TOTAL INCOME				412.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	14.00	1.0000	14.00	_____
HARVEST AIDS	acre	2.72	1.0000	2.72	_____
FERTILIZERS	acre	39.45	1.0000	39.45	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	56.12	1.0000	56.12	_____
INSECTICIDES	acre	5.69	1.0000	5.69	_____
SEED/PLANTS	acre	66.00	1.0000	66.00	_____
ADJUVANTS	acre	3.18	1.0000	3.18	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1051	0.96	_____
OPERATOR LABOR	hour	15.22	0.4149	6.33	_____
UNALLOCATED LABOR	hour	15.23	0.3734	5.69	_____
DIESEL FUEL	gal	2.30	4.4528	10.23	_____
REPAIR & MAINTENANCE	acre	10.52	1.0000	10.52	_____
INTEREST ON OP. CAP.	acre	8.14	1.0000	8.14	_____
				-----	
TOTAL DIRECT EXPENSES				278.98	_____
RETURNS ABOVE DIRECT EXPENSES				133.82	_____
TOTAL FIXED EXPENSES				39.15	_____
				-----	
TOTAL SPECIFIED EXPENSES				318.13	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				94.67	_____

Note: Cost of production estimates are based on 2019 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 12.C Estimated resource use for field operations, per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER UNIT	ALLOC LABOR	UNALL LABOR	
							-----hours-----			
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Disk Harrow	24'	MFWD 190	0.081	1.00	Oct		0.08	0.08	0.07	
Field Cultivate Fld	24'	MFWD 190	0.062	1.00	Oct		0.06	0.06	0.05	
App by Air ( 5 gal)	appl			1.00	Mar	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
2,4-D Amine 4	pt					2.0000				
Plant - Folding	12R-30	MFWD 190	0.062	1.00	Apr		0.06	0.06	0.05	
Soybean Seed 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	0.02	
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	0.02	
Glyphosate 3lbs a.e	oz					32.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Aug		0.02	0.02	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	0.09	
Haul Soybeans	bu					43.0000				
Grain Cart Soybean	700 bu	MFWD 190	0.021	1.00	Sep		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 2019 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 12.D Estimated costs for field operations, per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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						0.17	3.50	3.50
Lime (Spread)	ton	14.32						0.75	15.07	15.07
Custom Apply Fert	acre	7.50						0.39	7.89	7.89
Phosphorus(46% P2O5)	cwt	11.95						0.63	12.58	12.58
Potash (60% K2O)	cwt	27.50						1.44	28.94	28.94
Disk Harrow	24'		1.84	1.49	2.37			0.30	6.00	5.61
Field Cultivate Fld	24'		1.40	0.85	1.80			0.21	4.26	4.69
App by Air ( 5 gal)	appl	7.00						0.21	7.21	7.21
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62	4.62
2,4-D Amine 4	pt	5.46						0.17	5.63	5.63
Plant - Folding	12R-30		1.41	2.03	2.39			0.15	5.98	5.99
Soybean Seed RR2X	lb	66.00						1.73	67.73	67.73
CruiserMaxx	oz	6.69						0.18	6.87	6.87
Boundary	pt	17.68						0.46	18.14	18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37	8.37
Surfactant	pt	2.12						0.06	2.18	2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58	4.58
Prefix	pt	11.38						0.25	11.63	11.63
Soybeans Consultant	acre	6.50						0.14	6.64	6.64
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58	4.58
Spray (Broadcast)	60'		0.63	0.38	0.95			0.02	1.98	1.40
Acephate 90SP	lb	5.69						0.05	5.74	5.74
App by Air ( 5 gal)	appl	7.00						0.06	7.06	7.06
Gramoxone SL	oz	2.72						0.02	2.74	2.74
Surfactant	pt	1.06						0.01	1.07	1.07
Header -Soybean	25' Flex		3.21	4.67	2.96			0.05	10.89	17.40
Haul Soybeans	bu	11.61						0.05	11.66	11.66
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26
TOTALS		237.11	10.23	10.52	12.98	0.00	8.14	278.98	39.15	318.13

Note: Cost of production estimates are based on 2019 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 12.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, RR2X, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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	412.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72	0.00
FERTILIZERS	39.45	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.94	25.84	20.34	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	5.69	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.00	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.17	0.00	0.00	0.00	0.00	0.00	2.39	1.90	0.00	0.00	0.95	3.57
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	3.24	0.00	0.00	0.00	0.00	0.00	1.41	1.26	0.00	0.00	0.63	3.69
REPAIR & MAINTENANCE	2.34	0.00	0.00	0.00	0.00	0.00	2.03	0.76	0.00	0.00	0.38	5.01
INTEREST ON OP. CAP.	3.89	0.00	0.00	0.00	0.00	0.52	2.79	0.67	0.00	0.00	0.16	0.11
TOTAL DIRECT EXPENSES	78.24	0.00	0.00	0.00	0.00	17.46	109.27	31.43	0.00	0.00	18.59	23.99
NET INCOME	-78.24	0.00	0.00	0.00	0.00	-17.46	-109.27	-31.43	0.00	0.00	-18.59	388.81
NET INCOME TO DATE	-78.24	-78.24	-78.24	-78.24	-78.24	-95.70	-204.97	-236.40	-236.40	-236.40	-254.99	133.82

Note: Cost of production estimates are based on 2019 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 12.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, RR2X, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2020

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-118 -157	-108 -147	-97 -136	-87 -126	-77 -116	-66 -105	-56 -95	-46 -85	-35 -74	-25 -64	-15 -54
60	25.80	bu	-88 -127	-76 -115	-63 -102	-51 -90	-39 -78	-26 -65	-14 -53	-1 -41	10 -28	22 -16	35 -3
70	30.10	bu	-58 -97	-44 -83	-29 -69	-15 -54	-0 -40	13 -25	27 -11	42 3	56 17	71 32	85 46
80	34.40	bu	-28 -68	-12 -51	4 -35	20 -18	37 -2	53 14	70 30	86 47	103 63	119 80	136 97
90	38.70	bu	0 -38	19 -19	37 -1	56 17	75 35	93 54	112 73	130 91	149 110	168 128	186 147
100	43.00	bu	30 -8	51 12	71 32	92 53	113 74	133 94	154 115	175 135	195 156	216 177	237 197
110	47.30	bu	60 21	83 43	105 66	128 89	151 112	173 134	196 157	219 180	242 202	264 225	287 248
120	51.60	bu	90 51	114 75	139 100	164 125	189 150	214 174	238 199	263 224	288 249	313 273	337 298
130	55.90	bu	120 80	146 107	173 134	200 161	227 188	254 215	280 241	307 268	334 295	361 322	388 349
140	60.20	bu	149 110	178 139	207 168	236 197	265 226	294 255	323 284	352 312	380 341	409 370	438 399
150	64.50	bu	179 140	210 171	241 202	272 233	303 264	334 295	365 326	396 357	427 388	458 419	489 450

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.  
 Note: Cost of production estimates are based on 2019 input prices.

Table 13.A Estimated costs per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	1.0000	7.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.6600	11.95	_____
Potash (60% K2O)	cwt	27.50	1.0000	27.50	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	96.0000	13.44	_____
Select Max	pt	10.87	1.0000	10.87	_____
Fierce	oz	7.44	3.5000	26.04	_____
Gramoxone SL 2.0	oz	0.17	96.0000	16.32	_____
Boundary	pt	8.84	2.0000	17.68	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Dimilin 2L	oz	1.91	1.0000	1.91	_____
Baythroid XL	oz	1.06	1.0650	1.13	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.32	50.0000	66.00	_____
ADJUVANTS					
Surfactant	pt	5.31	1.4500	7.70	_____
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	43.00	0.3330	14.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.22	0.4549	6.92	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1382	1.25	_____
UNALLOCATED LABOR	hour	15.23	0.5013	7.64	_____
DIESEL FUEL					
Tractors	gal	2.30	4.5949	10.55	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	6.39	1.0000	6.39	_____
Tractors	acre	2.79	1.0000	2.79	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	7.38	1.0000	7.38	_____
TOTAL DIRECT EXPENSES				322.21	_____
FIXED EXPENSES					
Implements	acre	14.05	1.0000	14.05	_____
Tractors	acre	18.92	1.0000	18.92	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				48.87	_____
TOTAL SPECIFIED EXPENSES				371.08	_____

Note: Cost of production estimates are based on 2019 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 13.B Summary of estimated costs and returns per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	40.0000	384.00	_____
				-----	
TOTAL INCOME				384.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.00	1.0000	7.00	_____
HARVEST AIDS	acre	2.72	1.0000	2.72	_____
FERTILIZERS	acre	39.45	1.0000	39.45	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	95.73	1.0000	95.73	_____
INSECTICIDES	acre	3.04	1.0000	3.04	_____
SEED/PLANTS	acre	66.00	1.0000	66.00	_____
ADJUVANTS	acre	7.69	1.0000	7.69	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1382	1.25	_____
OPERATOR LABOR	hour	15.22	0.5571	8.48	_____
UNALLOCATED LABOR	hour	15.23	0.5013	7.64	_____
DIESEL FUEL	gal	2.30	5.9885	13.76	_____
REPAIR & MAINTENANCE	acre	12.93	1.0000	12.93	_____
INTEREST ON OP. CAP.	acre	7.38	1.0000	7.38	_____
				-----	
TOTAL DIRECT EXPENSES				322.21	_____
RETURNS ABOVE DIRECT EXPENSES				61.79	_____
TOTAL FIXED EXPENSES				48.87	_____
				-----	
TOTAL SPECIFIED EXPENSES				371.08	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				12.92	_____

Note: Cost of production estimates are based on 2019 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 13.C Estimated resource use for field operations, per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Fierce	oz					3.5000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	12R-30	MFWD 190	0.067	1.00	May		0.06	0.06	0.13	0.06
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx	oz					1.6000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Prefix	pt					2.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Spray (Broadcast)	60'	MFWD 190	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
Surfactant	pt					0.0500				
Spray (Broadcast)	60'	MFWD 190	0.028	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							0.55	0.55	0.69	0.50

Note: Cost of production estimates are based on 2019 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 13.D Estimated costs for field operations, per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.01	3.34	3.34
Lime (Spread)	ton	14.32						0.06	14.38	14.38
Disk Harrow	24'		1.84	1.49	2.37			0.02	5.72	5.61 11.33
Field Cultivate Fld	24'		1.40	0.85	1.80			0.02	4.07	4.69 8.76
Bed/Lister-Roll-Fo	12R-30		2.15	1.30	2.34			0.03	5.82	6.00 11.82
Spray (Broadcast)	60'		0.63	0.38	0.95			0.08	2.04	1.40 3.44
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66	4.66
Select Max	pt	10.87						0.43	11.30	11.30
Surfactant	pt	2.12						0.08	2.20	2.20
Custom Apply Fert	acre	7.50						0.23	7.73	7.73
Phosphorus (46% P2O5)	cwt	11.95						0.37	12.32	12.32
Potash (60% K2O)	cwt	27.50						0.84	28.34	28.34
Spray (Broadcast)	60'		0.63	0.38	0.95			0.06	2.02	1.40 3.42
Fierce	oz	26.04						0.80	26.84	26.84
Gramoxone SL 2.0	oz	8.16						0.25	8.41	8.41
Surfactant	pt	2.12						0.06	2.18	2.18
Soybeans Consultant	acre	6.50						0.17	6.67	6.67
Plant & Pre-Folding	12R-30		1.52	2.40	2.57			0.17	6.66	6.91 13.57
Soybean Seed RR2X	lb	66.00						1.73	67.73	67.73
CruiserMaxx	oz	6.69						0.18	6.87	6.87
Boundary	pt	17.68						0.46	18.14	18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37	8.37
Surfactant	pt	2.12						0.06	2.18	2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.05	2.01	1.40 3.41
Glyphosate 3lbs a.e	oz	4.48						0.12	4.60	4.60
Prefix	pt	11.38						0.30	11.68	11.68
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40 3.40
Glyphosate 3lbs a.e	oz	4.48						0.10	4.58	4.58
Spray (Broadcast)	60'		0.32	0.18	0.46			0.02	0.98	0.70 1.68
Dimilin 2L	oz	1.91						0.03	1.94	1.94
Surfactant	pt	0.27							0.27	0.27
Spray (Broadcast)	60'		0.32	0.18	0.46			0.01	0.97	0.70 1.67
Baythroid XL	oz	1.13						0.01	1.14	1.14
App by Air ( 5 gal)	appl	7.00						0.06	7.06	7.06
Gramoxone SL	oz	2.72						0.02	2.74	2.74
Surfactant	pt	1.06						0.01	1.07	1.07
Header -Soybean	25' Flex		3.21	4.67	2.96			0.05	10.89	17.40 28.29
Haul Soybeans	bu	10.80						0.05	10.85	10.85
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26 2.70
TOTALS		270.77	13.76	12.93	17.37	0.00	7.38	322.21	48.87	371.08

Note: Cost of production estimates are based on 2019 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 13.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, RR2X, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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	384.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	39.45	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	15.35	0.00	34.20	41.70	4.48	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	1.13	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	2.12	0.00	2.12	2.12	0.00	0.27	0.00	1.06	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	14.32
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.95	0.00	0.95	3.52	0.95	0.46	0.46	0.00	10.08
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	0.63	0.00	0.63	2.15	0.63	0.32	0.32	0.00	9.08
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.38	0.00	0.38	2.78	0.38	0.18	0.18	0.00	8.65
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.77	0.00	2.61	3.45	0.14	0.05	0.02	0.09	0.25
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.20	0.00	87.84	134.91	6.58	3.19	2.11	10.87	56.51
NET INCOME	0.00	0.00	0.00	-20.20	0.00	-87.84	-134.91	-6.58	-3.19	-2.11	-10.87	327.49
NET INCOME TO DATE	0.00	0.00	0.00	-20.20	-20.20	-108.04	-242.95	-249.53	-252.72	-254.83	-265.70	61.79

Note: Cost of production estimates are based on 2019 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 13.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, RR2X, May planted, 12R 30"  
 Non-Delta Area, Mississippi, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-172 -221	-163 -212	-153 -202	-143 -192	-134 -183	-124 -173	-115 -164	-105 -154	-95 -144	-86 -135	-76 -125
60	24.00	bu	-145 -193	-133 -182	-122 -170	-110 -159	-98 -147	-87 -136	-75 -124	-64 -113	-52 -101	-41 -90	-29 -78
70	28.00	bu	-117 -166	-103 -152	-90 -139	-77 -125	-63 -112	-50 -99	-36 -85	-23 -72	-9 -58	3 -45	17 -31
80	32.00	bu	-89 -138	-74 -123	-58 -107	-43 -92	-28 -77	-12 -61	2 -46	17 -30	33 -15	48 -0	63 15
90	36.00	bu	-61 -110	-44 -93	-27 -76	-10 -58	7 -41	24 -24	41 -7	59 10	76 27	93 44	110 62
100	40.00	bu	-34 -83	-15 -63	4 -44	23 -25	42 -6	61 12	80 32	100 51	119 70	138 89	157 108
110	44.00	bu	-6 -55	14 -34	35 -13	56 7	77 29	99 50	120 71	141 92	162 113	183 134	204 155
120	48.00	bu	21 -27	44 -4	67 18	90 41	113 64	136 87	159 110	182 133	205 156	228 179	251 202
130	52.00	bu	48 0	73 25	98 49	123 74	148 99	173 124	198 149	223 174	248 199	273 224	298 249
140	56.00	bu	76 27	103 54	130 81	157 108	184 135	211 162	237 189	264 215	291 242	318 269	345 296
150	60.00	bu	104 55	133 84	161 113	190 141	219 170	248 199	277 228	305 257	334 285	363 314	392 343

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 2019 input prices.

Table 14.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2X, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	3.0000	21.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Prefix	pt	5.69	2.0000	11.38	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.82	6.4000	5.25	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.32	50.0000	66.00	_____
ADJUVANTS					
Surfactant	pt	5.31	0.5000	2.66	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.1171	1.78	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR					
	hour	15.26	0.1886	2.88	_____
DIESEL FUEL					
Tractors	gal	2.30	1.3567	3.12	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	3.34	1.0000	3.34	_____
Tractors	acre	0.83	1.0000	0.83	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	7.70	1.0000	7.70	_____
TOTAL DIRECT EXPENSES				293.86	_____
FIXED EXPENSES					
Implements	acre	6.37	1.0000	6.37	_____
Tractors	acre	5.66	1.0000	5.66	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				27.93	_____
TOTAL SPECIFIED EXPENSES				321.79	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	25.0000	240.00	_____
				-----	
TOTAL INCOME				240.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	21.00	1.0000	21.00	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	41.70	1.0000	41.70	_____
INSECTICIDES	acre	34.62	1.0000	34.62	_____
SEED/PLANTS	acre	66.00	1.0000	66.00	_____
ADJUVANTS	acre	2.65	1.0000	2.65	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.2193	3.34	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL	gal	2.30	2.7503	6.33	_____
REPAIR & MAINTENANCE	acre	7.92	1.0000	7.92	_____
INTEREST ON OP. CAP.	acre	7.70	1.0000	7.70	_____
				-----	
TOTAL DIRECT EXPENSES				293.86	_____
RETURNS ABOVE DIRECT EXPENSES				-53.86	_____
TOTAL FIXED EXPENSES				27.93	_____
				-----	
TOTAL SPECIFIED EXPENSES				321.79	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-81.79	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 2019 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, 2020

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						0.17	3.50		3.50
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus(46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.80	2.48	2.53			0.15	6.96	7.46	14.42
Soybean Seed RR2X	lb	66.00						1.44	67.44		67.44
CruiserMaxx	oz	6.69						0.15	6.84		6.84
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	17.68						0.39	18.07		18.07
Gramoxone SL 2.0	oz	8.16						0.18	8.34		8.34
Surfactant	pt	2.12						0.05	2.17		2.17
Spray (Broadcast)	60'		0.75	0.41	0.93			0.04	2.13	1.63	3.76
Glyphosate 3lbs a.e	oz	4.48						0.08	4.56		4.56
Prefix	pt	11.38						0.20	11.58		11.58
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Prevathon	oz	15.68						0.21	15.89		15.89
Surfactant	pt	0.53						0.01	0.54		0.54
Bifenthrin	oz	5.25						0.07	5.32		5.32
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
Header -Soybean	25' Flex		3.21	4.67	2.90			0.05	10.83	17.40	28.23
Haul Soybeans	bu	6.75						0.03	6.78		6.78
Grain Cart Soybean	700 bu		0.57	0.36	0.60			0.01	1.54	1.44	2.98
TOTALS		264.95	6.33	7.92	6.96	0.00	7.70	293.86	27.93	321.79	

Note: Cost of production estimates are based on 2019 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, 2020

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	240.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	7.00	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.84	15.86	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	26.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.53	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	2.53	0.93	0.00	0.00	3.50
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.75	0.00	0.00	3.78
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48	0.41	0.00	0.00	5.03
INTEREST ON OP. CAP.	4.06	0.00	0.00	0.00	0.00	0.00	0.17	2.39	0.32	0.54	0.13	0.09
TOTAL DIRECT EXPENSES	81.55	0.00	0.00	0.00	0.00	0.00	6.67	111.40	18.27	41.69	15.13	19.15
NET INCOME	-81.55	0.00	0.00	0.00	0.00	0.00	-6.67	-111.40	-18.27	-41.69	-15.13	220.85
NET INCOME TO DATE	-81.55	-81.55	-81.55	-81.55	-81.55	-81.55	-88.22	-199.62	-217.89	-259.58	-274.71	-53.86

Note: Cost of production estimates are based on 2019 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, 2020

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00		
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-200 -228	-194 -222	-188 -216	-182 -210	-176 -204	-170 -198	-164 -192	-158 -186	-152 -180	-146 -174	-140 -168
60	15.00	bu	-183 -211	-175 -203	-168 -196	-161 -189	-154 -182	-147 -175	-139 -167	-132 -160	-125 -153	-118 -146	-111 -139
70	17.50	bu	-165 -193	-157 -185	-149 -176	-140 -168	-132 -160	-123 -151	-115 -143	-107 -134	-98 -126	-90 -118	-81 -109
80	20.00	bu	-148 -176	-138 -166	-129 -157	-119 -147	-110 -138	-100 -128	-90 -118	-81 -109	-71 -99	-62 -90	-52 -80
90	22.50	bu	-131 -159	-120 -148	-109 -137	-98 -126	-87 -115	-77 -105	-66 -94	-55 -83	-44 -72	-33 -61	-23 -51
100	25.00	bu	-113 -141	-101 -129	-89 -117	-77 -105	-65 -93	-53 -81	-41 -69	-29 -57	-17 -45	-5 -33	6 -21
110	27.50	bu	-96 -124	-83 -111	-70 -98	-56 -84	-43 -71	-30 -58	-17 -45	-4 -32	9 -18	22 -5	35 7
120	30.00	bu	-79 -107	-64 -92	-50 -78	-36 -63	-21 -49	-7 -35	7 -20	21 -6	35 8	50 22	64 36
130	32.50	bu	-61 -89	-46 -74	-30 -58	-15 -43	0 -27	16 -11	31 3	47 19	62 34	78 50	94 66
140	35.00	bu	-44 -72	-27 -55	-10 -38	5 -22	22 -5	39 11	56 28	73 45	89 61	106 78	123 95
150	37.50	bu	-27 -55	-9 -37	8 -19	26 -1	44 16	62 34	80 52	98 70	116 88	134 106	152 124

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 2019 input prices.

Table 15.A Estimated costs per acre  
Soybeans, full-season, LL, stale seedbed, 12R 30"  
Non-irrigated, Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Liberty 280	oz	0.49	58.0000	28.42	_____
Dual Magnum	pt	10.26	1.0000	10.26	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.27	50.0000	63.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.0000	5.31	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.3302	5.03	_____
Harvesters	hour	15.22	0.0851	1.30	_____
HAND LABOR					
Implements	hour	9.06	0.0959	0.87	_____
UNALLOCATED LABOR	hour	15.24	0.3738	5.70	_____
DIESEL FUEL					
Tractors	gal	2.30	3.8252	8.80	_____
Harvesters	gal	2.30	1.4243	3.28	_____
REPAIR & MAINTENANCE					
Implements	acre	5.10	1.0000	5.10	_____
Tractors	acre	2.34	1.0000	2.34	_____
Harvesters	acre	3.40	1.0000	3.40	_____
INTEREST ON OP. CAP.	acre	10.71	1.0000	10.71	_____
TOTAL DIRECT EXPENSES				373.47	_____
FIXED EXPENSES					
Implements	acre	11.35	1.0000	11.35	_____
Tractors	acre	15.94	1.0000	15.94	_____
Harvesters	acre	14.41	1.0000	14.41	_____
TOTAL FIXED EXPENSES				41.70	_____
TOTAL SPECIFIED EXPENSES				415.17	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	42.0000	403.20	_____
				-----	
TOTAL INCOME				403.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	106.24	1.0000	106.24	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
SEED/PLANTS	acre	63.50	1.0000	63.50	_____
ADJUVANTS	acre	5.30	1.0000	5.30	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.4154	6.33	_____
UNALLOCATED LABOR	hour	15.24	0.3738	5.70	_____
DIESEL FUEL	gal	2.30	5.2496	12.08	_____
REPAIR & MAINTENANCE	acre	10.84	1.0000	10.84	_____
INTEREST ON OP. CAP.	acre	10.71	1.0000	10.71	_____
				-----	
TOTAL DIRECT EXPENSES				373.47	_____
RETURNS ABOVE DIRECT EXPENSES				29.73	_____
TOTAL FIXED EXPENSES				41.70	_____
				-----	
TOTAL SPECIFIED EXPENSES				415.17	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-11.97	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 DF	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 2019 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, 2020

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						0.17	3.50		3.50
Subsoiler	3 shank		1.09	0.37	1.18			0.14	2.78	2.19	4.97
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Disk Harrow	24'		2.18	1.59	2.37			0.32	6.46	6.27	12.73
Field Cultivate Fld	24'		1.66	0.92	1.80			0.23	4.61	5.19	9.80
App by Air ( 5 gal)	appl	7.00						0.25	7.25		7.25
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
2,4-D Amine 4	pt	5.46						0.19	5.65		5.65
Select Max	pt	10.87						0.38	11.25		11.25
Valor SX	oz	8.56						0.30	8.86		8.86
Surfactant	pt	2.12						0.07	2.19		2.19
Plant & Pre-Folding	12R-30		1.80	2.48	2.57			0.18	7.03	7.46	14.49
Soybean Seed LL	lb	63.50						1.67	65.17		65.17
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Soybeans Consultant	acre	6.50						0.14	6.64		6.64
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Liberty 280	oz	14.21						0.31	14.52		14.52
Dual Magnum	pt	10.26						0.22	10.48		10.48
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Liberty 280	oz	14.21						0.31	14.52		14.52
Zidua DF	oz	12.35						0.27	12.62		12.62
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	5.69						0.05	5.74		5.74
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	11.34						0.05	11.39		11.39
Grain Cart Soybean	700 bu		0.57	0.36	0.61			0.01	1.55	1.44	2.99
<b>TOTALS</b>		<b>326.94</b>	<b>12.08</b>	<b>10.84</b>	<b>12.90</b>	<b>0.00</b>	<b>10.71</b>	<b>373.47</b>	<b>41.70</b>	<b>415.17</b>	

Note: Cost of production estimates are based on 2019 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, 2020

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	403.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	29.37	0.00	25.84	51.03	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	13.69	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	63.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.00	0.00	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	5.35	0.00	0.00	0.00	0.00	0.00	2.57	1.90	0.00	0.00	0.00	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	4.93	0.00	0.00	0.00	0.00	0.00	1.80	1.50	0.00	0.00	0.00	3.85
REPAIR & MAINTENANCE	2.88	0.00	0.00	0.00	0.00	0.00	2.48	0.82	0.00	0.00	0.00	4.66
INTEREST ON OP. CAP.	4.75	0.00	0.00	0.00	1.35	0.00	2.80	1.35	0.00	0.00	0.36	0.10
TOTAL DIRECT EXPENSES	95.40	0.00	0.00	0.00	39.84	0.00	109.35	63.10	0.00	0.00	42.75	23.03
NET INCOME	-95.40	0.00	0.00	0.00	-39.84	0.00	-109.35	-63.10	0.00	0.00	-42.75	380.17
NET INCOME TO DATE	-95.40	-95.40	-95.40	-95.40	-135.24	-135.24	-244.59	-307.69	-307.69	-307.69	-350.44	29.73

Note: Cost of production estimates are based on 2019 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, 2020

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00		
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-216 -258	-206 -248	-196 -238	-186 -228	-176 -217	-166 -207	-156 -197	-146 -187	-135 -177	-125 -167	-115 -157
60	25.20	bu	-187 -229	-175 -217	-163 -204	-151 -192	-139 -180	-126 -168	-114 -156	-102 -144	-90 -132	-78 -120	-66 -108
70	29.40	bu	-158 -200	-144 -185	-130 -171	-116 -157	-101 -143	-87 -129	-73 -115	-59 -101	-45 -87	-31 -73	-17 -58
80	33.60	bu	-129 -170	-113 -154	-97 -138	-80 -122	-64 -106	-48 -90	-32 -74	-16 -58	-0 -41	15 -25	32 -9
90	37.80	bu	-100 -141	-82 -123	-63 -105	-45 -87	-27 -69	-9 -51	8 -33	26 -14	44 3	63 21	81 39
100	42.00	bu	-71 -112	-50 -92	-30 -72	-10 -52	9 -32	29 -11	49 8	70 28	90 48	110 68	130 88
110	46.20	bu	-41 -83	-19 -61	2 -39	24 -17	46 5	68 27	91 49	113 71	135 93	157 115	179 138
120	50.40	bu	-12 -54	11 -30	35 -6	59 18	83 42	108 66	132 90	156 114	180 138	204 163	229 187
130	54.60	bu	16 -25	42 0	68 26	94 53	121 79	147 105	173 131	199 157	225 184	252 210	278 236
140	58.80	bu	45 3	73 31	101 60	130 88	158 116	186 144	214 172	242 201	271 229	299 257	327 285
150	63.00	bu	74 32	104 62	134 93	165 123	195 153	225 183	255 214	286 244	316 274	346 304	376 335

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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	5.0000	35.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Liberty 280	oz	0.49	58.0000	28.42	_____
Dual Magnum	pt	10.26	1.0000	10.26	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.27	50.0000	63.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.1000	5.84	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.4897	7.46	_____
Harvesters	hour	15.22	0.0851	1.30	_____
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	15.24	0.4466	6.81	_____
DIESEL FUEL					
Tractors	gal	2.30	5.4882	12.62	_____
Harvesters	gal	2.30	1.4243	3.28	_____
Roll-Out Pipe Irr.	gal	2.30	7.3316	16.86	_____
REPAIR & MAINTENANCE					
Implements	acre	6.03	1.0000	6.03	_____
Tractors	acre	3.33	1.0000	3.33	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Roll-Out Pipe Irr.	acre	6.89	1.0000	6.89	_____
INTEREST ON OP. CAP.	acre	12.03	1.0000	12.03	_____
TOTAL DIRECT EXPENSES				447.95	_____
FIXED EXPENSES					
Implements	acre	14.89	1.0000	14.89	_____
Tractors	acre	22.70	1.0000	22.70	_____
Harvesters	acre	14.41	1.0000	14.41	_____
Roll-Out Pipe Irr.	acre	60.69	1.0000	60.69	_____
TOTAL FIXED EXPENSES				112.69	_____
TOTAL SPECIFIED EXPENSES				560.64	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	60.0000	576.00	_____
				-----	
TOTAL INCOME				576.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	35.00	1.0000	35.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	106.24	1.0000	106.24	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	_____
SEED/PLANTS	acre	63.50	1.0000	63.50	_____
ADJUVANTS	acre	5.83	1.0000	5.83	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.5748	8.76	_____
UNALLOCATED LABOR	hour	15.24	0.4466	6.81	_____
DIESEL FUEL	gal	2.30	14.2442	32.76	_____
REPAIR & MAINTENANCE	acre	19.65	1.0000	19.65	_____
INTEREST ON OP. CAP.	acre	12.03	1.0000	12.03	_____
				-----	
TOTAL DIRECT EXPENSES				447.95	_____
RETURNS ABOVE DIRECT EXPENSES				128.05	_____
TOTAL FIXED EXPENSES				112.69	_____
				-----	
TOTAL SPECIFIED EXPENSES				560.64	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				15.36	_____

Note: Cost of production estimates are based on 2019 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, 2020

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-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
App by Air ( 5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
2,4-D Amine 4	pt					2.0000				
Select Max	pt					1.0000				
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 DF	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							0.57	0.57	1.03	0.44

Note: Cost of production estimates are based on 2019 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, 2020

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						0.17	3.50		3.50
Subsoiler	3 shank		1.09	0.37	1.18			0.14	2.78	2.19	4.97
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus(46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Disk Harrow	24'		2.18	1.59	2.37			0.32	6.46	6.27	12.73
Field Cultivate Fld	24'		1.66	0.92	1.80			0.23	4.61	5.19	9.80
Bed/Lister-Roll-Fo	12R-30		2.15	1.30	2.34			0.30	6.09	6.00	12.09
App by Air ( 5 gal)	appl	7.00						0.25	7.25		7.25
Glyphosate 3lbs a.e	oz	4.48						0.16	4.64		4.64
2,4-D Amine 4	pt	5.46						0.19	5.65		5.65
Select Max	pt	10.87						0.38	11.25		11.25
Valor SX	oz	8.56						0.30	8.86		8.86
Surfactant	pt	2.12						0.07	2.19		2.19
Plant & Pre-Folding	12R-30		1.80	2.48	2.57			0.18	7.03	7.46	14.49
Soybean Seed LL	lb	63.50						1.67	65.17		65.17
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Soybeans Consultant	acre	6.50						0.14	6.64		6.64
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Liberty 280	oz	14.21						0.31	14.52		14.52
Dual Magnum	pt	10.26						0.22	10.48		10.48
Spray (Broadcast)	60'		0.75	0.41	0.95			0.05	2.16	1.63	3.79
Liberty 280	oz	14.21						0.31	14.52		14.52
Zidua DF	oz	12.35						0.27	12.62		12.62
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Quadris Top SBX	oz	16.52						0.22	16.74		16.74
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	5.69						0.05	5.74		5.74
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	16.20						0.07	16.27		16.27
Grain Cart Soybean	700 bu		0.57	0.36	0.61			0.01	1.55	1.44	2.99
Roll-Out Pipe Irr.	acre	7.92	18.53	7.51	4.50			0.68	39.14	64.99	104.13
TOTALS		363.77	32.76	19.65	19.74	0.00	12.03	447.95	112.69	560.64	

Note: Cost of production estimates are based on 2019 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, 2020

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	576.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	16.52	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	29.37	0.00	25.84	51.03	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	13.69	0.00
IRRIGATION SUPPLIES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	63.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.00	0.00	0.53	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	8.27	0.00	0.00	0.00	0.00	0.00	2.57	2.13	2.83	0.23	0.00	3.71
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	7.93	0.00	0.00	0.00	0.00	0.00	1.80	1.50	11.68	5.62	0.00	4.23
REPAIR & MAINTENANCE	4.48	0.00	0.00	0.00	0.00	0.00	2.48	0.82	5.75	1.31	0.00	4.81
INTEREST ON OP. CAP.	5.14	0.00	0.00	0.00	1.35	0.00	2.80	1.36	0.48	0.41	0.36	0.13
TOTAL DIRECT EXPENSES	103.31	0.00	0.00	0.00	39.84	0.00	109.35	63.34	28.66	31.62	42.75	29.08
NET INCOME	-103.31	0.00	0.00	0.00	-39.84	0.00	-109.35	-63.34	-28.66	-31.62	-42.75	546.92
NET INCOME TO DATE	-103.31	-103.31	-103.31	-103.31	-143.15	-143.15	-252.50	-315.84	-344.50	-376.12	-418.87	128.05

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	30.00	bu	-223 -336	-209 -322	-195 -307	-180 -293	-166 -278	-151 -264	-137 -250	-123 -235	-108 -221	-94 -206	-79 -192
60	36.00	bu	-182 -294	-164 -277	-147 -260	-130 -243	-113 -225	-95 -208	-78 -191	-61 -173	-44 -156	-26 -139	-9 -122
70	42.00	bu	-140 -253	-120 -233	-100 -213	-80 -192	-60 -172	-39 -152	-19 -132	0 -112	20 -92	40 -71	60 -51
80	48.00	bu	-99 -211	-76 -188	-53 -165	-29 -142	-6 -119	16 -96	39 -73	62 -50	85 -27	108 -4	131 18
90	54.00	bu	-57 -170	-31 -144	-5 -118	20 -92	46 -66	72 -40	97 -14	123 11	149 37	175 63	201 88
100	60.00	bu	-15 -128	12 -99	41 -71	70 -42	99 -13	128 15	156 44	185 72	214 101	243 130	272 159
110	66.00	bu	25 -87	57 -55	88 -23	120 7	152 39	184 71	215 103	247 134	279 166	310 198	342 229
120	72.00	bu	67 -45	101 -10	136 23	170 58	205 92	239 127	274 161	309 196	343 230	378 265	412 300
130	78.00	bu	108 -3	146 33	183 70	221 108	258 145	295 183	333 220	370 258	408 295	445 333	483 370
140	84.00	bu	150 37	190 77	230 118	271 158	311 198	351 239	392 279	432 319	472 360	513 400	553 440
150	90.00	bu	191 79	235 122	278 165	321 208	364 252	407 295	451 338	494 381	537 424	580 468	623 511

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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
Sodium Chlorate 5L	gal	6.54	0.6000	3.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Select Max	pt	10.87	1.0000	10.87	_____
Valor SX	oz	4.28	2.0000	8.56	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Liberty 280	oz	0.49	58.0000	28.42	_____
Dual Magnum	pt	10.26	1.0000	10.26	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.27	50.0000	63.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.1000	5.84	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.4582	6.96	_____
Harvesters	hour	15.22	0.0851	1.30	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.1100	1.00	_____
UNALLOCATED LABOR					
	hour	15.26	0.3065	4.68	_____
DIESEL FUEL					
Tractors	gal	2.30	4.3236	9.93	_____
Harvesters	gal	2.30	1.4243	3.28	_____
Contour Flood Irr.	gal	2.30	10.9974	25.29	_____
REPAIR & MAINTENANCE					
Implements	acre	5.04	1.0000	5.04	_____
Tractors	acre	2.53	1.0000	2.53	_____
Harvesters	acre	3.40	1.0000	3.40	_____
Contour Flood Irr.	acre	13.80	1.0000	13.80	_____
INTEREST ON OP. CAP.	acre	11.62	1.0000	11.62	_____
TOTAL DIRECT EXPENSES				435.40	_____
FIXED EXPENSES					
Implements	acre	10.59	1.0000	10.59	_____
Tractors	acre	17.18	1.0000	17.18	_____
Harvesters	acre	14.41	1.0000	14.41	_____
Contour Flood Irr.	acre	47.45	1.0000	47.45	_____
TOTAL FIXED EXPENSES				89.63	_____
TOTAL SPECIFIED EXPENSES				525.03	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	53.0000	508.80	_____
				-----	
TOTAL INCOME				508.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	6.64	1.0000	6.64	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	100.78	1.0000	100.78	_____
INSECTICIDES	acre	13.69	1.0000	13.69	_____
SEED/PLANTS	acre	63.50	1.0000	63.50	_____
ADJUVANTS	acre	5.83	1.0000	5.83	_____
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	14.32	1.0000	14.32	_____
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	15.22	0.5433	8.26	_____
UNALLOCATED LABOR	hour	15.26	0.3065	4.68	_____
DIESEL FUEL	gal	2.30	16.7455	38.50	_____
REPAIR & MAINTENANCE	acre	24.77	1.0000	24.77	_____
INTEREST ON OP. CAP.	acre	11.62	1.0000	11.62	_____
				-----	
TOTAL DIRECT EXPENSES				435.40	_____
RETURNS ABOVE DIRECT EXPENSES				73.40	_____
TOTAL FIXED EXPENSES				89.63	_____
				-----	
TOTAL SPECIFIED EXPENSES				525.03	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-16.23	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 DF	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 2019 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, 2020

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						0.17	3.50		3.50
Disk Harrow	24'		1.84	1.49	2.37			0.30	6.00	5.61	11.61
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus (46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Spray (Broadcast)	60'		0.75	0.41	0.95			0.08	2.19	1.63	3.82
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66		4.66
Select Max	pt	10.87						0.43	11.30		11.30
Surfactant	pt	2.12						0.08	2.20		2.20
Valor SX	oz	8.56						0.34	8.90		8.90
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.52	2.40	2.57			0.17	6.66	6.91	13.57
Soybean Seed LL	lb	63.50						1.67	65.17		65.17
CruiserMaxx	oz	6.69						0.18	6.87		6.87
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	17.68						0.46	18.14		18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37		8.37
Surfactant	pt	2.12						0.06	2.18		2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.05	2.01	1.40	3.41
Liberty 280	oz	14.21						0.37	14.58		14.58
Dual Magnum	pt	10.26						0.27	10.53		10.53
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40	3.40
Liberty 280	oz	14.21						0.31	14.52		14.52
Zidua DF	oz	12.35						0.27	12.62		12.62
App by Air ( 5 gal)	appl	7.00						0.12	7.12		7.12
Quadris Top SBX	oz	16.52						0.29	16.81		16.81
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
Gramoxone SL	oz	2.72						0.02	2.74		2.74
Sodium Chlorate 5L	gal	3.92						0.03	3.95		3.95
Surfactant	pt	1.06						0.01	1.07		1.07
Header -Soybean	30' Flex		3.28	4.30	2.47			0.04	10.09	15.89	25.98
Haul Soybeans	bu	14.31						0.06	14.37		14.37
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26	2.70
Contour Flood Irr.	acre	2.25	29.37	15.07	5.89			0.94	53.52	55.53	109.05
TOTALS		343.75	38.50	24.77	16.76	0.00	11.62	435.40	89.63	525.03	

Note: Cost of production estimates are based on 2019 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, 2020

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	508.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	7.00	14.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.64	0.00
FERTILIZERS	52.34	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	6.69	0.00	16.52	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	23.91	0.00	0.00	50.31	26.56	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	5.69	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	63.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	2.12	0.00	0.00	2.12	0.00	0.53	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	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	2.37	0.00	0.00	0.95	0.00	0.00	3.97	2.86	1.67	1.67	0.19	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	1.84	0.00	0.00	0.75	0.00	0.00	2.15	10.55	9.60	9.60	0.25	3.76
REPAIR & MAINTENANCE	1.49	0.00	0.00	0.41	0.00	0.00	2.78	9.39	2.99	2.99	0.08	4.64
INTEREST ON OP. CAP.	4.36	0.00	0.00	1.11	0.00	0.00	3.66	1.12	0.66	0.35	0.25	0.11
TOTAL DIRECT EXPENSES	87.55	0.00	0.00	29.25	0.00	0.00	143.23	52.73	38.97	27.30	30.47	25.90
NET INCOME	-87.55	0.00	0.00	-29.25	0.00	0.00	-143.23	-52.73	-38.97	-27.30	-30.47	482.90
NET INCOME TO DATE	-87.55	-87.55	-87.55	-116.80	-116.80	-116.80	-260.03	-312.76	-351.73	-379.03	-409.50	73.40

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
			dollars										
PERCENT	YIELD	UNIT											
50	26.50	bu	-237 -327	-224 -314	-211 -301	-199 -288	-186 -276	-173 -263	-161 -250	-148 -238	-135 -225	-122 -212	-110 -199
60	31.80	bu	-200 -290	-185 -275	-170 -259	-154 -244	-139 -229	-124 -214	-109 -198	-93 -183	-78 -168	-63 -152	-48 -137
70	37.10	bu	-163 -253	-146 -235	-128 -217	-110 -200	-92 -182	-74 -164	-57 -146	-39 -128	-21 -111	-3 -93	14 -75
80	42.40	bu	-127 -216	-106 -196	-86 -176	-66 -155	-45 -135	-25 -115	-5 -94	15 -74	35 -54	55 -33	76 -13
90	47.70	bu	-90 -180	-67 -157	-44 -134	-21 -111	1 -88	23 -65	46 -42	69 -19	92 3	115 25	138 48
100	53.00	bu	-53 -143	-28 -117	-2 -92	22 -67	47 -41	73 -16	98 9	124 34	149 60	175 85	200 110
110	58.30	bu	-17 -106	10 -78	38 -50	66 -22	94 5	122 33	150 61	178 89	206 117	234 145	262 173
120	63.60	bu	19 -69	50 -39	80 -8	111 21	141 52	172 82	202 113	233 143	263 174	294 204	324 235
130	68.90	bu	56 -33	89 -0	122 32	155 65	188 99	221 132	254 165	287 198	320 231	354 264	387 297
140	74.20	bu	93 3	128 39	164 74	199 110	235 145	271 181	306 217	342 252	378 288	413 324	449 359
150	79.50	bu	129 40	167 78	206 116	244 154	282 192	320 230	358 269	396 307	435 345	473 383	511 421

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 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	4.0000	28.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
Quadris Top SBX	oz	2.36	7.0000	16.52	_____
HERBICIDES					
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Liberty 280	oz	0.49	29.0000	14.21	_____
Dual Magnum	pt	10.26	1.0000	10.26	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.82	6.4000	5.25	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.27	50.0000	63.50	_____
ADJUVANTS					
Surfactant	pt	5.31	0.6000	3.19	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.1171	1.78	_____
Harvesters	hour	15.22	0.1021	1.56	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL					
Tractors	gal	2.30	1.3567	3.12	_____
Harvesters	gal	2.30	1.3935	3.21	_____
1/2-mi Pivot Irr.	gal	2.30	16.4057	37.73	_____
REPAIR & MAINTENANCE					
Implements	acre	3.34	1.0000	3.34	_____
Tractors	acre	0.83	1.0000	0.83	_____
Harvesters	acre	3.75	1.0000	3.75	_____
1/2-mi Pivot Irr.	acre	11.79	1.0000	11.79	_____
INTEREST ON OP. CAP.	acre	9.07	1.0000	9.07	_____
TOTAL DIRECT EXPENSES				382.13	_____
FIXED EXPENSES					
Implements	acre	6.37	1.0000	6.37	_____
Tractors	acre	5.66	1.0000	5.66	_____
Harvesters	acre	15.90	1.0000	15.90	_____
1/2-mi Pivot Irr.	acre	46.92	1.0000	46.92	_____
TOTAL FIXED EXPENSES				74.85	_____
TOTAL SPECIFIED EXPENSES				456.98	_____

Note: Cost of production estimates are based on 2019 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, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	50.0000	480.00	_____
				-----	
TOTAL INCOME				480.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	23.21	1.0000	23.21	_____
HERBICIDES	acre	50.31	1.0000	50.31	_____
INSECTICIDES	acre	34.62	1.0000	34.62	_____
SEED/PLANTS	acre	63.50	1.0000	63.50	_____
ADJUVANTS	acre	3.18	1.0000	3.18	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.2193	3.34	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL	gal	2.30	19.1560	44.06	_____
REPAIR & MAINTENANCE	acre	19.71	1.0000	19.71	_____
INTEREST ON OP. CAP.	acre	9.07	1.0000	9.07	_____
				-----	
TOTAL DIRECT EXPENSES				382.13	_____
RETURNS ABOVE DIRECT EXPENSES				97.87	_____
TOTAL FIXED EXPENSES				74.85	_____
				-----	
TOTAL SPECIFIED EXPENSES				456.98	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				23.02	_____

Note: Cost of production estimates are based on 2019 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, 2020

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 2019 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, 2020

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						0.17	3.50		3.50
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus(46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.80	2.48	2.53			0.15	6.96	7.46	14.42
Soybean Seed LL	lb	63.50						1.39	64.89		64.89
CruiserMaxx	oz	6.69						0.15	6.84		6.84
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	17.68						0.39	18.07		18.07
Gramoxone SL 2.0	oz	8.16						0.18	8.34		8.34
Surfactant	pt	2.12						0.05	2.17		2.17
Spray (Broadcast)	60'		0.75	0.41	0.93			0.04	2.13	1.63	3.76
Liberty 280	oz	14.21						0.25	14.46		14.46
Dual Magnum	pt	10.26						0.18	10.44		10.44
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Quadris Top SBX	oz	16.52						0.22	16.74		16.74
Surfactant	pt	0.53						0.01	0.54		0.54
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Prevathon	oz	15.68						0.21	15.89		15.89
Surfactant	pt	0.53						0.01	0.54		0.54
Bifenthrin	oz	5.25						0.07	5.32		5.32
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
Header -Soybean	25' Flex		3.21	4.67	2.90			0.05	10.83	17.40	28.23
Haul Soybeans	bu	13.50						0.06	13.56		13.56
Grain Cart Soybean	700 bu		0.57	0.36	0.60			0.01	1.54	1.44	2.98
1/2-mi Pivot Irr.	acre		37.73	11.79	0.47			0.92	50.91	46.92	97.83
TOTALS		301.86	44.06	19.71	7.43	0.00		9.07	382.13	74.85	456.98

Note: Cost of production estimates are based on 2019 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, 1L, 12R 30"  
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2020

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	480.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	7.00	0.00
FERTILIZERS	52.34	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	6.69	0.00	16.52	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.84	24.47	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	26.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	2.57	0.98	0.04	0.00	3.50
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	13.12	15.84	11.32	0.00	3.78
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.83	1.23	0.62	0.00	5.03
INTEREST ON OP. CAP.	4.06	0.00	0.00	0.00	0.00	0.00	0.18	2.81	0.75	1.02	0.13	0.12
TOTAL DIRECT EXPENSES	81.55	0.00	0.00	0.00	0.00	0.00	7.02	131.03	43.27	78.20	15.13	25.93
NET INCOME	-81.55	0.00	0.00	0.00	0.00	0.00	-7.02	-131.03	-43.27	-78.20	-15.13	454.07
NET INCOME TO DATE	-81.55	-81.55	-81.55	-81.55	-81.55	-81.55	-88.57	-219.60	-262.87	-341.07	-356.20	97.87

Note: Cost of production estimates are based on 2019 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, 2020

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-195 -270	-183 -258	-171 -246	-159 -234	-147 -222	-135 -210	-123 -198	-111 -186	-99 -174	-87 -162	-75 -150
60	30.00	bu	-160 -235	-146 -221	-131 -206	-117 -192	-103 -177	-88 -163	-74 -149	-59 -134	-45 -120	-31 -105	-16 -91
70	35.00	bu	-126 -200	-109 -184	-92 -167	-75 -150	-58 -133	-42 -116	-25 -100	-8 -83	8 -66	25 -49	41 -32
80	40.00	bu	-91 -166	-72 -147	-53 -127	-33 -108	-14 -89	4 -70	23 -51	42 -31	62 -12	81 6	100 25
90	45.00	bu	-56 -131	-35 -110	-13 -88	8 -66	29 -45	51 -23	72 -2	94 19	116 41	137 62	159 84
100	50.00	bu	-22 -96	1 -72	25 -48	49 -24	73 -0	97 23	121 47	145 71	169 95	193 119	217 143
110	55.00	bu	12 -62	38 -35	65 -9	91 16	118 43	144 69	170 96	197 122	223 148	250 175	276 201
120	60.00	bu	47 -27	75 1	104 29	133 58	162 87	191 116	219 145	248 173	277 202	306 231	335 260
130	65.00	bu	81 6	113 38	144 69	175 100	206 131	237 162	269 194	300 225	331 256	362 287	393 318
140	70.00	bu	116 41	150 75	183 108	217 142	250 175	284 209	318 243	351 276	385 310	418 343	452 377
150	75.00	bu	151 76	187 112	223 148	259 184	295 220	331 256	367 292	403 328	439 364	475 400	511 436

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 2019 input prices.

Table 19.A Estimated costs per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	2.0000	14.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.6600	11.95	_____
Potash (60% K2O)	cwt	27.50	1.0000	27.50	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
2,4-D Amine 4	pt	2.73	2.0000	5.46	_____
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Liberty 280	oz	0.49	58.0000	28.42	_____
Dual Magnum	pt	10.26	1.0000	10.26	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.27	50.0000	63.50	_____
ADJUVANTS					
Surfactant	pt	5.31	0.6000	3.19	_____
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	43.00	0.3330	14.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.22	0.3128	4.77	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1051	0.96	_____
UNALLOCATED LABOR	hour	15.23	0.3734	5.69	_____
DIESEL FUEL					
Tractors	gal	2.30	3.0592	7.02	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	4.91	1.0000	4.91	_____
Tractors	acre	1.86	1.0000	1.86	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	8.74	1.0000	8.74	_____
TOTAL DIRECT EXPENSES				307.77	_____
FIXED EXPENSES					
Implements	acre	10.69	1.0000	10.69	_____
Tractors	acre	12.56	1.0000	12.56	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				39.15	_____
TOTAL SPECIFIED EXPENSES				346.92	_____

Note: Cost of production estimates are based on 2019 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.B Summary of estimated costs and returns per acre  
Soybeans, full-season, 1L, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	43.0000	412.80	_____
				-----	
TOTAL INCOME				412.80	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	14.00	1.0000	14.00	_____
HARVEST AIDS	acre	2.72	1.0000	2.72	_____
FERTILIZERS	acre	39.45	1.0000	39.45	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	86.81	1.0000	86.81	_____
INSECTICIDES	acre	5.69	1.0000	5.69	_____
SEED/PLANTS	acre	63.50	1.0000	63.50	_____
ADJUVANTS	acre	3.18	1.0000	3.18	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1051	0.96	_____
OPERATOR LABOR	hour	15.22	0.4149	6.33	_____
UNALLOCATED LABOR	hour	15.23	0.3734	5.69	_____
DIESEL FUEL	gal	2.30	4.4528	10.23	_____
REPAIR & MAINTENANCE	acre	10.52	1.0000	10.52	_____
INTEREST ON OP. CAP.	acre	8.74	1.0000	8.74	_____
				-----	
TOTAL DIRECT EXPENSES				307.77	_____
RETURNS ABOVE DIRECT EXPENSES				105.03	_____
TOTAL FIXED EXPENSES				39.15	_____
				-----	
TOTAL SPECIFIED EXPENSES				346.92	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				65.88	_____

Note: Cost of production estimates are based on 2019 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.C Estimated resource use for field operations, per acre  
Soybeans, full-season, LL, April planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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 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 DF	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 2019 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, 2020

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						0.17	3.50	3.50
Lime (Spread)	ton	14.32						0.75	15.07	15.07
Custom Apply Fert	acre	7.50						0.39	7.89	7.89
Phosphorus (46% P2O5)	cwt	11.95						0.63	12.58	12.58
Potash (60% K2O)	cwt	27.50						1.44	28.94	28.94
Disk Harrow	24'		1.84	1.49	2.37			0.30	6.00	5.61
Field Cultivate Fld	24'		1.40	0.85	1.80			0.21	4.26	4.69
App by Air ( 5 gal)	appl	7.00						0.21	7.21	7.21
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62	4.62
2,4-D Amine 4	pt	5.46						0.17	5.63	5.63
Plant - Folding	12R-30		1.41	2.03	2.39			0.15	5.98	5.99
Soybean Seed LL	lb	63.50						1.67	65.17	65.17
CruiserMaxx	oz	6.69						0.18	6.87	6.87
Boundary	pt	17.68						0.46	18.14	18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37	8.37
Surfactant	pt	2.12						0.06	2.18	2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40
Liberty 280	oz	14.21						0.31	14.52	14.52
Dual Magnum	pt	10.26						0.22	10.48	10.48
Soybeans Consultant	acre	6.50						0.14	6.64	6.64
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40
Liberty 280	oz	14.21						0.31	14.52	14.52
Zidua DF	oz	12.35						0.27	12.62	12.62
Spray (Broadcast)	60'		0.63	0.38	0.95			0.02	1.98	1.40
Acephate 90SP	lb	5.69						0.05	5.74	5.74
App by Air ( 5 gal)	appl	7.00						0.06	7.06	7.06
Gramoxone SL	oz	2.72						0.02	2.74	2.74
Surfactant	pt	1.06						0.01	1.07	1.07
Header -Soybean	25' Flex		3.21	4.67	2.96			0.05	10.89	17.40
Haul Soybeans	bu	11.61						0.05	11.66	11.66
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26
TOTALS		265.30	10.23	10.52	12.98	0.00	8.74	307.77	39.15	346.92

Note: Cost of production estimates are based on 2019 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, 2020

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	412.80
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72	0.00
FERTILIZERS	39.45	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	9.94	25.84	51.03	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	5.69	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	63.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.00	0.00	1.06	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.17	0.00	0.00	0.00	0.00	0.00	2.39	1.90	0.00	0.00	0.95	3.57
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	3.24	0.00	0.00	0.00	0.00	0.00	1.41	1.26	0.00	0.00	0.63	3.69
REPAIR & MAINTENANCE	2.34	0.00	0.00	0.00	0.00	0.00	2.03	0.76	0.00	0.00	0.38	5.01
INTEREST ON OP. CAP.	3.89	0.00	0.00	0.00	0.00	0.52	2.73	1.33	0.00	0.00	0.16	0.11
TOTAL DIRECT EXPENSES	78.24	0.00	0.00	0.00	0.00	17.46	106.71	62.78	0.00	0.00	18.59	23.99
NET INCOME	-78.24	0.00	0.00	0.00	0.00	-17.46	-106.71	-62.78	0.00	0.00	-18.59	388.81
NET INCOME TO DATE	-78.24	-78.24	-78.24	-78.24	-78.24	-95.70	-202.41	-265.19	-265.19	-265.19	-283.78	105.03

Note: Cost of production estimates are based on 2019 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 19.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, LL, April planted, 12R 30"  
 Non-Delta Area, Mississippi, 2020

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00		
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-147	-136	-126	-116	-105	-95	-85	-74	-64	-54	-43
			-186	-175	-165	-155	-145	-134	-124	-114	-103	-93	-83
60	25.80	bu	-117	-104	-92	-80	-67	-55	-43	-30	-18	-5	6
			-156	-144	-131	-119	-106	-94	-82	-69	-57	-45	-32
70	30.10	bu	-87	-73	-58	-44	-29	-15	-0	13	28	42	56
			-126	-112	-97	-83	-68	-54	-40	-25	-11	3	17
80	34.40	bu	-57	-41	-24	-8	8	24	41	57	74	90	107
			-96	-80	-63	-47	-30	-14	2	18	35	51	68
90	38.70	bu	-27	-9	9	27	46	64	83	102	120	139	157
			-67	-48	-29	-11	7	25	44	62	81	100	118
100	43.00	bu	1	22	43	63	84	105	125	146	166	187	208
			-37	-16	3	24	45	65	86	107	127	148	169
110	47.30	bu	31	54	77	99	122	145	167	190	213	235	258
			-7	15	37	60	83	105	128	151	174	196	219
120	51.60	bu	61	86	110	135	160	185	210	234	259	284	309
			22	47	71	96	121	146	170	195	220	245	269
130	55.90	bu	91	118	144	171	198	225	252	279	305	332	359
			52	78	105	132	159	186	213	239	266	293	320
140	60.20	bu	121	149	178	207	236	265	294	323	352	381	409
			81	110	139	168	197	226	255	284	313	341	370
150	64.50	bu	150	181	212	243	274	305	336	367	398	429	460
			111	142	173	204	235	266	297	328	359	390	421

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 2019 input prices.

Table 20.A Estimated costs per acre  
 Soybeans, full-season, LL, May planted, 12R 30"  
 Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	1.0000	7.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.17	16.0000	2.72	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.6600	11.95	_____
Potash (60% K2O)	cwt	27.50	1.0000	27.50	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Select Max	pt	10.87	1.0000	10.87	_____
Fierce	oz	7.44	3.5000	26.04	_____
Gramoxone SL 2.0	oz	0.17	96.0000	16.32	_____
Boundary	pt	8.84	2.0000	17.68	_____
Liberty 280	oz	0.49	58.0000	28.42	_____
Dual Magnum	pt	10.26	1.0000	10.26	_____
Zidua DF	oz	8.23	1.5000	12.35	_____
INSECTICIDES					
Dimilin 2L	oz	1.91	1.0000	1.91	_____
Baythroid XL	oz	1.06	1.0650	1.13	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.27	50.0000	63.50	_____
ADJUVANTS					
Surfactant	pt	5.31	1.4500	7.70	_____
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	43.00	0.3330	14.32	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.22	0.4549	6.92	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1382	1.25	_____
UNALLOCATED LABOR	hour	15.23	0.5013	7.64	_____
DIESEL FUEL					
Tractors	gal	2.30	4.5949	10.55	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	6.39	1.0000	6.39	_____
Tractors	acre	2.79	1.0000	2.79	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	8.02	1.0000	8.02	_____
TOTAL DIRECT EXPENSES				351.04	_____
FIXED EXPENSES					
Implements	acre	14.05	1.0000	14.05	_____
Tractors	acre	18.92	1.0000	18.92	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				48.87	_____
TOTAL SPECIFIED EXPENSES				399.91	_____

Note: Cost of production estimates are based on 2019 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 20.B Summary of estimated costs and returns per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	40.0000	384.00	_____
				-----	
TOTAL INCOME				384.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.00	1.0000	7.00	_____
HARVEST AIDS	acre	2.72	1.0000	2.72	_____
FERTILIZERS	acre	39.45	1.0000	39.45	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	126.42	1.0000	126.42	_____
INSECTICIDES	acre	3.04	1.0000	3.04	_____
SEED/PLANTS	acre	63.50	1.0000	63.50	_____
ADJUVANTS	acre	7.69	1.0000	7.69	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1382	1.25	_____
OPERATOR LABOR	hour	15.22	0.5571	8.48	_____
UNALLOCATED LABOR	hour	15.23	0.5013	7.64	_____
DIESEL FUEL	gal	2.30	5.9885	13.76	_____
REPAIR & MAINTENANCE	acre	12.93	1.0000	12.93	_____
INTEREST ON OP. CAP.	acre	8.02	1.0000	8.02	_____
				-----	
TOTAL DIRECT EXPENSES				351.04	_____
RETURNS ABOVE DIRECT EXPENSES				32.96	_____
TOTAL FIXED EXPENSES				48.87	_____
				-----	
TOTAL SPECIFIED EXPENSES				399.91	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-15.91	_____

Note: Cost of production estimates are based on 2019 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 20.C Estimated resource use for field operations, per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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-Fo	12R-30	MFWD 225	0.080	1.00	Oct		0.08	0.08	0.08	0.07
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 DF	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>0.55</b>	<b>0.55</b>	<b>0.69</b>	<b>0.50</b>

Note: Cost of production estimates are based on 2019 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 20.D Estimated costs for field operations, per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.01	3.34	3.34
Lime (Spread)	ton	14.32						0.06	14.38	14.38
Disk Harrow	24'		1.84	1.49	2.37			0.02	5.72	5.61 11.33
Field Cultivate Fld	24'		1.40	0.85	1.80			0.02	4.07	4.69 8.76
Bed/Lister-Roll-Fo	12R-30		2.15	1.30	2.34			0.03	5.82	6.00 11.82
Spray (Broadcast)	60'		0.63	0.38	0.95			0.08	2.04	1.40 3.44
Glyphosate 3lbs a.e	oz	4.48						0.18	4.66	4.66
Select Max	pt	10.87						0.43	11.30	11.30
Surfactant	pt	2.12						0.08	2.20	2.20
Custom Apply Fert	acre	7.50						0.23	7.73	7.73
Phosphorus (46% P2O5)	cwt	11.95						0.37	12.32	12.32
Potash (60% K2O)	cwt	27.50						0.84	28.34	28.34
Spray (Broadcast)	60'		0.63	0.38	0.95			0.06	2.02	1.40 3.42
Fierce	oz	26.04						0.80	26.84	26.84
Gramoxone SL 2.0	oz	8.16						0.25	8.41	8.41
Surfactant	pt	2.12						0.06	2.18	2.18
Soybeans Consultant	acre	6.50						0.17	6.67	6.67
Plant & Pre-Folding	12R-30		1.52	2.40	2.57			0.17	6.66	6.91 13.57
Soybean Seed LL	lb	63.50						1.67	65.17	65.17
CruiserMaxx	oz	6.69						0.18	6.87	6.87
Boundary	pt	17.68						0.46	18.14	18.14
Gramoxone SL 2.0	oz	8.16						0.21	8.37	8.37
Surfactant	pt	2.12						0.06	2.18	2.18
Spray (Broadcast)	60'		0.63	0.38	0.95			0.05	2.01	1.40 3.41
Liberty 280	oz	14.21						0.37	14.58	14.58
Dual Magnum	pt	10.26						0.27	10.53	10.53
Spray (Broadcast)	60'		0.63	0.38	0.95			0.04	2.00	1.40 3.40
Liberty 280	oz	14.21						0.31	14.52	14.52
Zidua DF	oz	12.35						0.27	12.62	12.62
Spray (Broadcast)	60'		0.32	0.18	0.46			0.02	0.98	0.70 1.68
Dimilin 2L	oz	1.91						0.03	1.94	1.94
Surfactant	pt	0.27							0.27	0.27
Spray (Broadcast)	60'		0.32	0.18	0.46			0.01	0.97	0.70 1.67
Baythroid XL	oz	1.13						0.01	1.14	1.14
App by Air ( 5 gal)	appl	7.00						0.06	7.06	7.06
Gramoxone SL	oz	2.72						0.02	2.74	2.74
Surfactant	pt	1.06						0.01	1.07	1.07
Header -Soybean	25' Flex		3.21	4.67	2.96			0.05	10.89	17.40 28.29
Haul Soybeans	bu	10.80						0.05	10.85	10.85
Grain Cart Soybean	700 bu		0.48	0.34	0.61			0.01	1.44	1.26 2.70
<b>TOTALS</b>		<b>298.96</b>	<b>13.76</b>	<b>12.93</b>	<b>17.37</b>	<b>0.00</b>	<b>8.02</b>	<b>351.04</b>	<b>48.87</b>	<b>399.91</b>

Note: Cost of production estimates are based on 2019 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 20.E Estimated monthly income and expense flows per acre  
Soybeans, full-season, LL, May planted, 12R 30"  
Non-Delta Area, Mississippi, 2020

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	384.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	39.45	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	6.69	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	15.35	0.00	34.20	50.31	26.56	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	1.13	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	63.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	2.12	0.00	2.12	2.12	0.00	0.27	0.00	1.06	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	14.32
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.95	0.00	0.95	3.52	0.95	0.46	0.46	0.00	10.08
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	0.63	0.00	0.63	2.15	0.63	0.32	0.32	0.00	9.08
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.38	0.00	0.38	2.78	0.38	0.18	0.18	0.00	8.65
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.77	0.00	2.61	3.61	0.62	0.05	0.02	0.09	0.25
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.20	0.00	87.84	141.18	29.14	3.19	2.11	10.87	56.51
NET INCOME	0.00	0.00	0.00	-20.20	0.00	-87.84	-141.18	-29.14	-3.19	-2.11	-10.87	327.49
NET INCOME TO DATE	0.00	0.00	0.00	-20.20	-20.20	-108.04	-249.22	-278.36	-281.55	-283.66	-294.53	32.96

Note: Cost of production estimates are based on 2019 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 20.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, full-season, LL, May planted, 12R 30"  
 Non-Delta Area, Mississippi, 2020

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-201 -250	-192 -240	-182 -231	-172 -221	-163 -212	-153 -202	-144 -192	-134 -183	-124 -173	-115 -164	-105 -154
60	24.00	bu	-173 -222	-162 -211	-150 -199	-139 -188	-127 -176	-116 -165	-104 -153	-93 -142	-81 -130	-70 -119	-58 -107
70	28.00	bu	-146 -195	-132 -181	-119 -168	-105 -154	-92 -141	-78 -127	-65 -114	-52 -100	-38 -87	-25 -74	-11 -60
80	32.00	bu	-118 -167	-103 -151	-87 -136	-72 -121	-57 -105	-41 -90	-26 -75	-10 -59	4 -44	19 -29	35 -13
90	36.00	bu	-90 -139	-73 -122	-56 -105	-38 -87	-21 -70	-4 -53	12 -35	30 -18	47 -1	64 15	82 33
100	40.00	bu	-63 -111	-43 -92	-24 -73	-5 -54	13 -35	32 -15	52 3	71 22	90 41	109 60	128 80
110	44.00	bu	-35 -84	-14 -63	6 -41	28 -20	49 0	70 21	91 42	112 63	133 84	154 105	175 127
120	48.00	bu	-7 -56	15 -33	38 -10	61 12	84 35	107 58	130 81	153 104	176 127	199 150	222 173
130	52.00	bu	20 -28	45 -3	70 21	94 46	119 71	144 96	169 120	194 145	219 170	244 195	269 220
140	56.00	bu	47 -1	74 25	101 52	128 79	155 106	182 133	209 160	235 187	262 213	289 240	316 267
150	60.00	bu	75 26	104 55	133 84	161 113	190 141	219 170	248 199	277 228	305 257	334 285	363 314

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 2019 input prices.

Table 21.A Estimated costs per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	3.0000	21.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.11	0.8700	15.76	_____
Potash (60% K2O)	cwt	27.50	1.3300	36.58	_____
FUNGICIDES					
CruiserMaxx	oz	4.18	1.6000	6.69	_____
HERBICIDES					
Boundary	pt	8.84	2.0000	17.68	_____
Gramoxone SL 2.0	oz	0.17	48.0000	8.16	_____
Liberty 280	oz	0.49	29.0000	14.21	_____
Dual Magnum	pt	10.26	1.0000	10.26	_____
INSECTICIDES					
Acephate 90SP	lb	7.59	0.7500	5.69	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.82	6.4000	5.25	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed LL	lb	1.27	50.0000	63.50	_____
ADJUVANTS					
Surfactant	pt	5.31	0.5000	2.66	_____
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	43.00	0.3330	14.32	_____
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	15.22	0.1171	1.78	_____
Harvesters	hour	15.22	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.0817	0.74	_____
UNALLOCATED LABOR					
	hour	15.26	0.1886	2.88	_____
DIESEL FUEL					
Tractors	gal	2.30	1.3567	3.12	_____
Harvesters	gal	2.30	1.3935	3.21	_____
REPAIR & MAINTENANCE					
Implements	acre	3.34	1.0000	3.34	_____
Tractors	acre	0.83	1.0000	0.83	_____
Harvesters	acre	3.75	1.0000	3.75	_____
INTEREST ON OP. CAP.	acre	7.80	1.0000	7.80	_____
TOTAL DIRECT EXPENSES				300.07	_____
FIXED EXPENSES					
Implements	acre	6.37	1.0000	6.37	_____
Tractors	acre	5.66	1.0000	5.66	_____
Harvesters	acre	15.90	1.0000	15.90	_____
TOTAL FIXED EXPENSES				27.93	_____
TOTAL SPECIFIED EXPENSES				328.00	_____

Note: Cost of production estimates are based on 2019 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 21.B Summary of estimated costs and returns per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2020

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	9.60	25.0000	240.00	_____
				-----	
TOTAL INCOME				240.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	21.00	1.0000	21.00	_____
FERTILIZERS	acre	52.34	1.0000	52.34	_____
FUNGICIDES	acre	6.69	1.0000	6.69	_____
HERBICIDES	acre	50.31	1.0000	50.31	_____
INSECTICIDES	acre	34.62	1.0000	34.62	_____
SEED/PLANTS	acre	63.50	1.0000	63.50	_____
ADJUVANTS	acre	2.65	1.0000	2.65	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	14.32	1.0000	14.32	_____
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	15.22	0.2193	3.34	_____
UNALLOCATED LABOR	hour	15.26	0.1886	2.88	_____
DIESEL FUEL	gal	2.30	2.7503	6.33	_____
REPAIR & MAINTENANCE	acre	7.92	1.0000	7.92	_____
INTEREST ON OP. CAP.	acre	7.80	1.0000	7.80	_____
				-----	
TOTAL DIRECT EXPENSES				300.07	_____
RETURNS ABOVE DIRECT EXPENSES				-60.07	_____
TOTAL FIXED EXPENSES				27.93	_____
				-----	
TOTAL SPECIFIED EXPENSES				328.00	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-88.00	_____

Note: Cost of production estimates are based on 2019 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 21.C Estimated resource use for field operations, per acre  
 Soybeans, double crop after wheat, LL, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2020

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
<b>TOTALS</b>							<b>0.21</b>	<b>0.21</b>	<b>0.30</b>	<b>0.18</b>

Note: Cost of production estimates are based on 2019 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 21.D Estimated costs for field operations, per acre  
Soybeans, double crop after wheat, LL, 12R 30"  
Non-irrigated, All Areas, Mississippi, 2020

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						0.17	3.50		3.50
Lime (Spread)	ton	14.32						0.75	15.07		15.07
Custom Apply Fert	acre	7.50						0.39	7.89		7.89
Phosphorus(46% P2O5)	cwt	15.76						0.83	16.59		16.59
Potash (60% K2O)	cwt	36.58						1.92	38.50		38.50
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Plant & Pre-Folding	12R-30		1.80	2.48	2.53			0.15	6.96	7.46	14.42
Soybean Seed LL	lb	63.50						1.39	64.89		64.89
CruiserMaxx	oz	6.69						0.15	6.84		6.84
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	17.68						0.39	18.07		18.07
Gramoxone SL 2.0	oz	8.16						0.18	8.34		8.34
Surfactant	pt	2.12						0.05	2.17		2.17
Spray (Broadcast)	60'		0.75	0.41	0.93			0.04	2.13	1.63	3.76
Liberty 280	oz	14.21						0.25	14.46		14.46
Dual Magnum	pt	10.26						0.18	10.44		10.44
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Acephate 90SP	lb	5.69						0.07	5.76		5.76
App by Air ( 5 gal)	appl	7.00						0.09	7.09		7.09
Prevathon	oz	15.68						0.21	15.89		15.89
Surfactant	pt	0.53						0.01	0.54		0.54
Bifenthrin	oz	5.25						0.07	5.32		5.32
Incidental Pest											
App by Air ( 5 gal)	appl	7.00						0.06	7.06		7.06
IncidentalPestTrt \$8	acre	8.00						0.07	8.07		8.07
Header -Soybean	25' Flex		3.21	4.67	2.90			0.05	10.83	17.40	28.23
Haul Soybeans	bu	6.75						0.03	6.78		6.78
Grain Cart Soybean	700 bu		0.57	0.36	0.60			0.01	1.54	1.44	2.98
TOTALS		271.06	6.33	7.92	6.96	0.00	7.80	300.07	27.93	328.00	

Note: Cost of production estimates are based on 2019 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 21.E Estimated monthly income and expense flows per acre  
 Soybeans, double crop after wheat, 1L, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2020

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	240.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	7.00	0.00
FERTILIZERS	52.34	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	6.69	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.84	24.47	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	26.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.53	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	14.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	2.53	0.93	0.00	0.00	3.50
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.75	0.00	0.00	3.78
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48	0.41	0.00	0.00	5.03
INTEREST ON OP. CAP.	4.06	0.00	0.00	0.00	0.00	0.00	0.17	2.34	0.47	0.54	0.13	0.09
TOTAL DIRECT EXPENSES	81.55	0.00	0.00	0.00	0.00	0.00	6.67	108.85	27.03	41.69	15.13	19.15
NET INCOME	-81.55	0.00	0.00	0.00	0.00	0.00	-6.67	-108.85	-27.03	-41.69	-15.13	220.85
NET INCOME TO DATE	-81.55	-81.55	-81.55	-81.55	-81.55	-81.55	-88.22	-197.07	-224.10	-265.79	-280.92	-60.07

Note: Cost of production estimates are based on 2019 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 21.F Estimated returns for various price/yield combinations, per acre  
 Soybeans, double crop after wheat, LL, 12R 30"  
 Non-irrigated, All Areas, Mississippi, 2020

PRODUCT			PERCENT										
-----			75	80	85	90	95	100	105	110	115	120	125
-----			PRODUCT PRICE										
-----			7.20	7.68	8.16	8.64	9.12	9.60	10.08	10.56	11.04	11.52	12.00
PERCENT	YIELD	UNIT	-----dollars-----										
50	12.50	bu	-206	-200	-194	-188	-182	-176	-170	-164	-158	-152	-146
			-234	-228	-222	-216	-210	-204	-198	-192	-186	-180	-174
60	15.00	bu	-189	-182	-174	-167	-160	-153	-146	-138	-131	-124	-117
			-217	-210	-202	-195	-188	-181	-174	-166	-159	-152	-145
70	17.50	bu	-172	-163	-155	-146	-138	-130	-121	-113	-104	-96	-88
			-199	-191	-183	-174	-166	-157	-149	-141	-132	-124	-115
80	20.00	bu	-154	-145	-135	-125	-116	-106	-97	-87	-77	-68	-58
			-182	-173	-163	-153	-144	-134	-125	-115	-105	-96	-86
90	22.50	bu	-137	-126	-115	-104	-94	-83	-72	-61	-50	-40	-29
			-165	-154	-143	-132	-122	-111	-100	-89	-78	-68	-57
100	25.00	bu	-120	-108	-96	-84	-72	-60	-48	-36	-24	-12	-0
			-148	-136	-124	-112	-100	-88	-76	-64	-52	-40	-28
110	27.50	bu	-102	-89	-76	-63	-49	-36	-23	-10	2	16	29
			-130	-117	-104	-91	-77	-64	-51	-38	-25	-11	1
120	30.00	bu	-85	-71	-56	-42	-27	-13	0	15	29	44	58
			-113	-98	-84	-70	-55	-41	-26	-12	1	16	30
130	32.50	bu	-68	-52	-36	-21	-5	9	25	41	56	72	87
			-96	-80	-64	-49	-33	-18	-2	13	28	44	59
140	35.00	bu	-50	-33	-17	-0	16	33	50	66	83	100	117
			-78	-61	-45	-28	-11	5	22	38	55	72	89
150	37.50	bu	-33	-15	2	20	38	56	74	92	110	128	146
			-61	-43	-25	-7	10	28	46	64	82	100	118

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 2019 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, 2020

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	352,000	300	8	13.64	15.22	31.37	36.66	83.25	155.57	238.83
Combine (300-349 hp)	325 hp	383,000	300	8	16.73	15.22	38.47	39.89	93.59	169.27	262.87
Combine (350-399 hp)	355 hp	395,000	300	8	18.27	15.22	42.02	41.14	98.38	174.58	272.96
Combine (400-449 hp)	425 hp	425,000	300	8	21.87	15.22	50.31	44.27	109.80	187.84	297.64
Combine (450-499hp)	475 hp	455,000	300	8	24.44	15.22	56.23	47.39	118.84	201.09	319.94
Tractor( 20-39hp)CB	MFWD 30	30,000	600	8	1.54	15.22	3.55	0.93	19.70	6.12	25.83
Tractor( 20-39hp)RB	MFWD 30	20,800	600	8	1.54	15.22	3.55	0.65	19.42	4.24	23.67
Tractor( 40-59hp)CB	2WD 50	30,400	600	8	2.57	15.22	5.91	0.95	22.08	6.21	28.29
Tractor( 40-59hp)CB	MFWD 50	40,300	600	8	2.57	15.22	5.91	1.25	22.39	8.23	30.63
Tractor( 40-59hp)RB	2WD 50	21,600	600	8	2.57	15.22	5.91	0.67	21.81	4.41	26.22
Tractor( 40-59hp)RB	MFWD 50	27,500	600	8	2.57	15.22	5.91	0.85	21.99	5.61	27.61
Tractor( 60-89hp)CB	2WD 75	50,200	600	8	3.86	15.22	8.87	1.56	25.66	10.25	35.92
Tractor( 60-89hp)CB	MFWD 75	56,800	600	8	3.86	15.22	8.87	1.77	25.87	11.60	37.47
Tractor( 60-89hp)RB	2WD 75	35,800	600	8	3.86	15.22	8.87	1.11	25.21	7.31	32.53
Tractor( 60-89hp)RB	MFWD 75	42,000	600	8	3.86	15.22	8.87	1.31	25.41	8.58	33.99
Tractor( 90-119hp)CB	2WD 105	69,300	600	8	5.40	15.22	12.43	2.16	29.81	14.15	43.97
Tractor( 90-119hp)CB	MFWD 105	88,100	600	8	5.40	15.22	12.43	2.75	30.40	17.99	48.40
Tractor( 90-119hp)RB	2WD 105	62,300	600	8	5.40	15.22	12.43	1.94	29.59	12.72	42.32
Tractor( 90-119hp)RB	MFWD 105	69,700	600	8	5.40	15.22	12.43	2.17	29.82	14.23	44.06
Tractor(120-139hp)CB	2WD 130	110,000	600	8	6.69	15.22	15.39	3.43	34.04	22.47	56.52
Tractor(120-139hp)CB	MFWD 130	125,000	600	8	6.69	15.22	15.39	3.90	34.51	25.53	60.05
Tractor(140-159hp)	2WD 150	108,000	600	8	7.72	15.22	17.75	3.37	36.35	22.06	58.41
Tractor(140-159hp)CB	MFWD 150	140,000	600	8	7.72	15.22	17.75	4.37	37.35	28.60	65.95
Tractor(160-179hp)CB	MFWD 170	155,000	600	8	8.75	15.22	20.12	4.84	40.18	32.95	73.14
Tractor(180-199hp)CB	MFWD 190	189,000	600	8	9.77	15.22	22.49	5.90	43.61	40.18	83.80
Tractor(200-249hp)CB	MFWD 225	227,000	600	8	11.58	15.22	26.63	7.09	48.95	48.27	97.22
Tractor(250-349hp)CB	4WD 300	298,000	600	8	15.44	15.22	35.51	9.31	60.04	63.36	123.41
Tractor(250-349hp)CB	MFWD 300	301,000	600	8	15.44	15.22	35.51	9.40	60.14	64.00	124.14
Tractor(250-349hp)CB	Track 300	327,000	600	8	15.44	15.22	35.51	10.21	60.95	69.53	130.48
Tractor(350-449hp)	Track 400	426,000	600	8	20.58	15.22	47.35	13.31	75.88	90.58	166.47
Tractor(350-449hp)CB	4WD 400	342,000	600	8	20.58	15.22	47.35	10.68	73.26	72.72	145.98
Tractor(450-550hp)CB	4WD 500	412,000	600	8	25.73	15.22	59.19	12.87	87.28	87.60	174.89
Tractor(450-550hp)CB	Track 500	466,000	600	8	25.73	15.22	59.19	14.56	88.97	99.09	188.06
Utility Vehicle	800 CC	12,200	200	8	0.70	15.22	1.54	1.90	18.66	8.08	26.75
Utility Vehicle	900 CC	15,800	200	8	1.00	15.22	2.20	2.46	19.88	10.47	30.36

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, 2020

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	6.25	7.62	10.79	24.68	45.80	70.48
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	6.25	10.68	14.13	31.07	59.98	91.06
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	4.18	7.13	9.61	20.93	40.78	61.71
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	5.29	9.17	15.85	30.32	67.28	97.61
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	4.18	7.24	12.51	23.94	53.11	77.06
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	6.25	12.20	21.58	40.05	91.60	131.65
Cotton Picker/Module	6R-30 (500)	776,000	200	8	25.73	0.218	5.29	12.91	26.46	44.68	112.28	156.96
Cotton Picker/Module	6R-38 (500)	808,000	200	8	25.73	0.172	4.18	10.19	21.75	36.13	92.30	128.43
Dry Applicator SP	70'300cuft	344,000	350	8	16.98	0.015	0.29	0.59	0.27	1.16	1.96	3.13
Sprayer 600-750gal	60' 175hp	216,000	350	8	9.00	0.017	0.34	0.36	0.20	0.91	1.44	2.35
Sprayer 600-825gal	80' 175hp	215,000	350	8	11.81	0.013	0.26	0.35	0.15	0.77	1.07	1.84
Sprayer 600-825gal	90' 250hp	316,000	350	8	12.73	0.011	0.23	0.34	0.19	0.77	1.40	2.18
Sprayer 800gal	100' 250hp	317,000	350	8	14.15	0.010	0.20	0.34	0.17	0.73	1.27	2.00
Sprayer 800gal	80' 250hp	287,000	350	8	12.86	0.013	0.26	0.39	0.20	0.85	1.43	2.29
Sprayer 1000-1400gal	90' 275hp	316,000	350	8	14.15	0.010	0.20	0.34	0.17	0.73	1.26	1.99
Sprayer 1000gal	100' 300hp	357,000	350	8	15.44	0.010	0.20	0.37	0.20	0.78	1.43	2.21
Sprayer 1200+gal	120' 300hp	376,000	350	8	15.44	0.008	0.17	0.31	0.17	0.66	1.25	1.91

## Notes:

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

Direct: Does not include interest on operating capital.

Appendix Table 3. Implements: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2020

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Bed-Rip/Disk Fold.	8R-38	MFWD 190	48,700	300	20	0.073	1.11	1.64	0.17	0.43	3.36	0.96	2.93	7.26
Bed-Rip/Disk Fold.	12R-30	MFWD 225	67,900	300	20	0.061	0.93	1.64	0.20	0.43	3.22	1.13	2.97	7.32
Bed-Rip/Disk Fold.	12R-38	MFWD 225	67,900	300	20	0.046	0.70	1.23	0.15	0.32	2.41	0.84	2.23	5.49
Bed-Rip/Disk Rigid	4R-30	MFWD 190	21,400	300	20	0.184	2.81	4.15	0.19	1.09	8.26	1.06	7.42	16.76
Bed-Rip/Disk Rigid	4R-38	MFWD 190	21,400	300	20	0.146	2.23	3.30	0.15	0.86	6.55	0.84	5.89	13.30
Bed-Rip/Disk Rigid	6R-30	MFWD 190	29,800	300	20	0.123	1.87	2.77	0.18	0.72	5.55	0.99	4.95	11.50
Bed-Rip/Disk Rigid	6R-38	MFWD 190	39,800	300	20	0.097	1.48	2.18	0.19	0.57	4.43	1.04	3.91	9.39
Bed-Rip/Disk Rigid	8R-30	MFWD 190	39,800	300	20	0.139	2.11	3.12	0.27	0.82	6.33	1.49	5.58	13.42
Bed-Rip/Disk Rigid	8R-38	MFWD 190	29,800	300	20	0.073	1.11	1.64	0.10	0.43	3.29	0.58	2.93	6.82
Bed-Subsoil Fold	8R-38	MFWD 225	48,700	150	12	0.080	1.22	2.15	1.42	0.57	5.37	2.71	3.89	11.98
Bed-Subsoil Fold	8R-38 2x1	MFWD 225	67,900	150	12	0.053	0.81	1.43	1.31	0.38	3.95	2.51	2.59	9.06
Bed-Subsoil Fold	12R-38	MFWD 225	67,900	150	12	0.053	0.81	1.43	1.31	0.38	3.95	2.51	2.59	9.06
Bed-Subsoil Rigid	4R-30	MFWD 225	21,400	150	12	0.204	3.10	5.44	1.57	1.44	11.58	3.01	9.86	24.45
Bed-Subsoil Rigid	4R-38	MFWD 225	21,400	150	12	0.160	2.44	4.28	1.24	1.14	9.11	2.37	7.76	19.25
Bed-Subsoil Rigid	6R-30	MFWD 225	29,800	150	12	0.136	2.07	3.62	1.46	0.96	8.13	2.79	6.57	17.50
Bed-Subsoil Rigid	6R-38	MFWD 225	29,800	150	12	0.107	1.63	2.86	1.15	0.76	6.42	2.20	5.19	13.82
Bed-Subsoil Rigid	8R-30	MFWD 225	39,800	150	12	0.102	1.55	2.72	1.46	0.72	6.46	2.80	4.93	14.20
Bed-Subsoil Rigid	8R-38	MFWD 225	39,800	150	12	0.080	1.22	2.15	1.16	0.57	5.11	2.21	3.89	11.22
Bed/Disk (Hipper)	4R-38	MFWD 150	9,200	160	10	0.147	2.24	2.62	0.33	0.64	5.85	0.97	4.22	11.05
Bed/Disk (Hipper)	6R-38	MFWD 170	15,200	160	10	0.098	1.50	1.98	0.37	0.47	4.34	1.07	3.25	8.67
Bed/Disk (Hipper)	8R-30	MFWD 190	19,500	160	10	0.093	1.42	2.10	0.45	0.55	4.54	1.31	3.76	9.62
Bed/Disk (Hipper)	8R-38 2x1	MFWD 190	37,400	160	10	0.049	0.75	1.10	0.46	0.29	2.61	1.32	1.98	5.92
Bed/Disk (Hipper)	12R-30	MFWD 225	34,500	160	10	0.062	0.95	1.66	0.53	0.44	3.59	1.54	3.01	8.16
Bed/Disk (Hipper)	12R-38	MFWD 225	37,400	160	10	0.049	0.75	1.31	0.46	0.35	2.87	1.32	2.38	6.58
Bed/Disk (Hipper)Fl	8R-38	MFWD 190	27,200	160	10	0.074	1.12	1.66	0.50	0.43	3.73	1.44	2.97	8.16
Bed/Disk (Hipper)Rd	8R-38	MFWD 190	21,000	160	10	0.074	1.12	1.66	0.38	0.43	3.62	1.11	2.97	7.71
Bed/Lister-Roll-Fo	8R-38	MFWD 190	24,300	160	10	0.095	1.45	2.15	0.58	0.56	4.76	1.67	3.85	10.29
Bed/Lister-Roll-Fo	12R-30	MFWD 225	36,175	160	10	0.080	1.23	2.15	0.73	0.57	4.69	2.10	3.90	10.69
Bed/Lister-Roll-Fo	12R-38	MFWD 225	35,700	160	10	0.063	0.97	1.70	0.56	0.45	3.69	1.63	3.08	8.41
Bed/Lister-Roll-Fo	16R-30	MFWD 225	40,400	160	10	0.060	0.92	1.61	0.61	0.43	3.58	1.76	2.92	8.27
Bed/Lister-Roll-Ri	8R-38	MFWD 190	24,300	160	10	0.095	1.45	2.15	0.58	0.56	4.76	1.67	3.85	10.29
Blade-Box	6'-7'	MFWD 105	1,620	200	20	0.020	0.30	0.24	0.01	0.04	0.61	0.01	0.28	0.91
Blade-Box	8'-10'	MFWD 105	3,830	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	6'-7'	MFWD 105	1,330	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	8'-10'	MFWD 105	4,100	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boll Buggy	4R-38(250)	MFWD 190	30,500	200	10	0.257	3.92	5.79	1.96	1.52	13.20	4.37	10.36	27.94
Boll Buggy	4R-38(350)	MFWD 190	30,500	200	10	0.257	3.92	5.79	1.96	1.52	13.20	4.37	10.36	27.94
Boll Buggy	4R2x1(350)	MFWD 190	30,500	200	10	0.172	2.62	3.87	1.31	1.01	8.82	2.92	6.92	18.67
Boll Buggy	6R-30(355)	MFWD 190	30,500	200	10	0.218	3.32	4.90	1.66	1.28	11.18	3.70	8.77	23.65
Boll Buggy	6R-38(355)	MFWD 190	30,500	200	10	0.172	2.62	3.87	1.31	1.01	8.82	2.92	6.92	18.67
Chisel Plow-Folding	24'	MFWD 190	42,200	150	12	0.076	1.16	1.71	1.16	0.45	4.49	2.22	3.07	9.79
Chisel Plow-Folding	32'	MFWD 225	54,200	150	12	0.057	0.87	1.53	1.13	0.40	3.95	2.15	2.78	8.90
Chisel Plow-Folding	42'	MFWD 225	65,100	150	12	0.044	0.66	1.17	1.03	0.31	3.18	1.97	2.12	7.28
Chisel Plow-Folding	50'	MFWD 225	85,200	150	12	0.036	0.56	0.98	1.13	0.26	2.94	2.17	1.78	6.90
Chisel Plow-Folding	61'	MFWD 225	97,700	150	12	0.030	0.46	0.80	1.06	0.21	2.55	2.04	1.46	6.05
Chisel Plow-Rigid	10'	MFWD 170	7,790	150	12	0.184	2.81	3.72	0.52	0.89	7.94	0.99	6.09	15.03
Chisel Plow-Rigid	15'	2WD 130	14,700	150	12	0.123	1.87	1.89	0.65	0.42	4.85	1.24	2.76	8.86
Chisel Plow-Rigid	20'	MFWD 225	12,000	150	12	0.102	1.56	2.73	0.44	0.72	5.47	0.84	4.95	11.28
Cultivate	4R-30	2WD 105	14,600	150	10	0.206	3.13	2.56	0.80	0.44	6.95	2.30	2.92	12.18
Cultivate	4R-38	2WD 105	14,200	150	10	0.162	2.47	2.01	0.61	0.31	5.42	1.76	2.06	9.25
Cultivate	6R-30	MFWD 150	18,500	150	10	0.137	2.09	2.44	0.67	0.60	5.81	1.94	3.93	11.69
Cultivate	6R-38	MFWD 150	19,300	150	10	0.108	1.65	1.92	0.55	0.47	4.61	1.60	3.10	9.32
Cultivate	8R-30	MFWD 190	24,200	150	10	0.103	1.56	2.31	0.66	0.60	5.16	1.91	4.14	11.22
Cultivate	8R-38	MFWD 190	27,300	150	10	0.073	1.12	1.65	0.53	0.43	3.74	1.54	2.96	8.25
Cultivate	8R-38 2x1	MFWD 190	39,300	150	10	0.054	0.82	1.22	0.56	0.32	2.93	1.63	2.18	6.75
Cultivate	12R-30	MFWD 225	45,600	150	10	0.068	1.04	1.83	0.83	0.48	4.20	2.40	3.31	9.92
Cultivate	12R-38	MFWD 225	44,600	150	10	0.054	0.82	1.44	0.64	0.38	3.30	1.85	2.62	7.77
Cultivate	16R-30	MFWD 225	58,400	150	10	0.051	0.78	1.37	0.80	0.36	3.32	2.30	2.48	8.12
Cultivate & Post	4R-30	2WD 105	21,900	150	10	0.220	4.34	2.73	1.28	0.42	8.79	3.69	2.80	15.28
Cultivate & Post	4R-38	2WD 105	21,600	150	10	0.173	3.42	2.15	0.99	0.33	6.90	2.86	2.20	11.98
Cultivate & Post	6R-30	MFWD 150	25,900	150	10	0.146	2.89	2.60	1.01	0.64	7.15	2.91	4.19	14.26
Cultivate & Post	6R-38	MFWD 150	26,600	150	10	0.115	2.28	2.05	0.82	0.50	5.67	2.36	3.31	11.34
Cultivate & Post	8R-30	MFWD 190	31,500	150	10	0.110	2.17	2.47	0.92	0.64	6.22	2.65	4.42	13.29
Cultivate & Post	8R-38	MFWD 190	34,700	150	10	0.086	1.71	1.95	0.80	0.51	4.99	2.31	3.49	10.79
Cultivate & Post	8R-38 2x1	MFWD 190	47,900	150	10	0.057	1.14	1.30	0.73	0.34	3.52	2.12	2.32	7.97
Cultivate & Post	12R-30	MFWD 225	52,900	150	10	0.073	1.44	1.95	1.03	0.52	4.95	2.97	3.53	11.46
Cultivate & Post	12R-38	MFWD 225	53,200	150	10	0.057	1.14	1.54	0.82	0.41	3.91	2.36	2.79	9.07
Cultivate & Post	16R-30	MFWD 225	61,700	150	10	0.055	1.08	1.46	0.90	0.39	3.84	2.60	2.65	9.10
Disk & Incorporate	14'	2WD 130	33,200	200	10	0.149	2.95	2.30	1.49	0.51	7.26	2.85	3.36	13.48
Disk & Incorporate	20'	MFWD 190	75,700	200	10	0.092	1.40	2.07	2.09	0.54	6.13	4.02	3.71	13.86
Disk & Incorporate	24'	MFWD 190	51,800	200	10	0.087	1.72	1.96	1.35	0.51	5.56	2.59	3.50	11.66
Disk & Incorporate	28'	MFWD 225	61,200	200	10	0.074	1.47	1.99	1.37	0.53	5.37	2.63	3.61	11.62
Disk & Incorporate	32'	MFWD 225	66,900	200	10	0.065	1.29	1.74	1.31	0.46	4.81	2.51	3.16	10.49
Disk Harrow	14'	2WD 130	25,900	180	10	0.140	2.13	2.15	1.00	0.48	5.78	2.32	3.15	11.26
Disk Harrow	20'	MFWD 190	45,000	180	10	0.098	1.49	2.20	1.22	0.58	5.51	2.82	3.94	12.28
Disk Harrow	24'	MFWD 190	44,400	180	10	0.081	1.24	1.84	1.00	0.48	4.57	2.32	3.28	10.19
Disk Harrow	28'	MFWD 225	53,800	180	10	0.070	1.06	1.86	1.04	0.49	4.48	2.41	3.38	10.27
Disk Harrow	32'	MFWD 225	59,500	180	10	0.061	0.93	1.63	1.01	0.43	4.01	2.33	2.96	9.31

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2020 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Disk Harrow	42'	MFWD 225	98,700	180	10	0.046	0.71	1.24	1.28	0.33	3.57	2.94	2.25	8.77
Disk Harrow 40-100hp	14'	2WD 75	16,700	180	10	0.140	2.13	1.24	0.65	0.15	4.18	1.49	1.02	6.71
Disk Heavy	14'	MFWD 150	25,900	180	10	0.145	2.22	2.59	1.05	0.63	6.50	2.41	4.17	13.09
Disk Heavy	20'	MFWD 190	45,000	180	10	0.097	1.48	2.18	1.21	0.57	5.46	2.79	3.91	12.16
Disk Heavy	28'	MFWD 225	53,800	180	10	0.075	1.15	2.01	1.13	0.53	4.83	2.60	3.65	11.08
Disk Ripper	15'	MFWD 225	49,200	180	10	0.136	2.07	3.62	1.86	0.96	8.52	4.28	6.57	19.38
Ditcher		2WD 130	6,100	200	10	0.020	0.30	0.30	0.04	0.06	0.72	0.07	0.44	1.24
Ditcher (1m/160a)		2WD 130	6,100	200	10	0.009	0.14	0.14	0.02	0.03	0.34	0.03	0.21	0.58
Fert Appl (Liquid)	4R-38	MFWD 150	12,900	150	8	0.154	3.05	2.74	1.33	0.67	7.80	1.63	4.42	13.86
Fert Appl (Liquid)	6R-30	MFWD 170	18,500	150	8	0.130	2.58	2.63	1.61	0.63	7.47	1.97	4.31	13.76
Fert Appl (Liquid)	6R-38	MFWD 170	18,500	150	8	0.103	2.04	2.08	1.27	0.50	5.89	1.56	3.40	10.86
Fert Appl (Liquid)	8R-30	MFWD 190	18,400	150	8	0.098	1.93	2.20	1.20	0.58	5.93	1.47	3.94	11.35
Fert Appl (Liquid)	8R-38	MFWD 190	19,000	150	8	0.077	1.53	1.74	0.98	0.45	4.72	1.20	3.12	9.04
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	21,600	150	8	0.051	1.02	1.16	0.74	0.30	3.23	0.91	2.07	6.22
Fert Appl (Liquid)	12R-30	MFWD 225	23,100	150	8	0.078	1.55	2.09	1.20	0.55	5.41	1.48	3.79	10.68
Fert Appl (Liquid)	12R-38	MFWD 225	21,600	150	8	0.051	1.02	1.37	0.74	0.36	3.50	0.91	2.49	6.91
Field Cult & Inc	42'	MFWD 225	67,100	100	10	0.037	0.74	1.00	0.63	0.26	2.65	2.91	1.82	7.39
Field Cult & Inc	50'	MFWD 225	81,500	100	10	0.031	0.62	0.84	0.64	0.22	2.34	2.97	1.53	6.84
Field Cult & Inc Fld	24'	MFWD 170	37,900	100	10	0.066	1.30	1.33	0.62	0.32	3.58	2.88	2.17	8.64
Field Cult & Inc Fld	32'	MFWD 190	51,500	100	10	0.049	0.97	1.11	0.63	0.29	3.02	2.93	1.99	7.95
Field Cult & Inc Rdg	12'	2WD 150	19,600	100	10	0.132	2.61	2.34	0.64	0.44	6.05	2.97	2.91	11.94
Field Cultivate Fld	24'	MFWD 170	30,600	100	10	0.062	0.94	1.25	0.47	0.30	2.97	2.18	2.05	7.21
Field Cultivate Fld	32'	MFWD 190	42,900	100	10	0.046	0.71	1.04	0.50	0.27	2.53	2.30	1.87	6.71
Field Cultivate Fld	42'	MFWD 225	58,400	100	10	0.035	0.54	0.94	0.51	0.25	2.25	2.38	1.71	6.36
Field Cultivate Fld	50'	MFWD 225	67,800	100	10	0.029	0.45	0.79	0.50	0.21	1.96	2.32	1.44	5.73
Field Cultivate Rdg	12'	2WD 150	12,300	100	10	0.124	1.89	2.20	0.38	0.41	4.90	1.75	2.74	9.41
Grain Cart Corn	500 bu	MFWD 190	25,700	200	12	0.025	0.38	0.56	0.17	0.14	1.27	0.33	1.01	2.63
Grain Cart Corn	700 bu	MFWD 190	37,300	200	12	0.025	0.38	0.56	0.25	0.14	1.35	0.48	1.01	2.86
Grain Cart Corn	1000 bu	MFWD 225	54,700	200	12	0.025	0.38	0.67	0.37	0.17	1.61	0.71	1.22	3.54
Grain Cart Rice	500 bu	MFWD 190	25,700	200	12	0.062	0.95	1.40	0.43	0.36	3.16	0.83	2.51	6.50
Grain Cart Rice	700 bu	MFWD 190	37,300	200	12	0.055	0.83	1.23	0.55	0.32	2.95	1.06	2.21	6.22
Grain Cart Rice	1000 bu	MFWD 190	54,700	200	12	0.045	0.69	1.03	0.67	0.27	2.67	1.29	1.84	5.81
Grain Cart Soybean	500 bu	MFWD 190	25,700	200	12	0.025	0.38	0.57	0.17	0.15	1.28	0.33	1.02	2.65
Grain Cart Soybean	700 bu	MFWD 190	37,300	200	12	0.021	0.32	0.47	0.21	0.12	1.14	0.40	0.85	2.40
Grain Cart Soybean	1000 bu	MFWD 190	54,700	200	12	0.021	0.32	0.47	0.31	0.12	1.24	0.60	0.85	2.69
Grain Cart Wht/Sor	500 bu	MFWD 190	25,700	200	12	0.025	0.38	0.57	0.17	0.15	1.28	0.33	1.02	2.65
Grain Cart Wht/Sor	700 bu	MFWD 190	37,300	200	12	0.021	0.32	0.47	0.21	0.12	1.14	0.40	0.85	2.40
Grain Cart Wht/Sor	1000 bu	MFWD 190	54,700	200	12	0.021	0.32	0.47	0.31	0.12	1.24	0.60	0.85	2.69
Grain Drill	10'	2WD 130	28,000	150	8	0.188	4.57	2.90	1.97	0.64	10.10	4.13	4.23	18.48
Grain Drill	12'	2WD 130	27,500	150	8	0.157	3.81	2.41	1.62	0.54	8.39	3.38	3.53	15.31
Grain Drill	15'	MFWD 150	33,100	150	8	0.125	3.05	2.23	1.56	0.54	7.39	3.26	3.59	14.25
Grain Drill	20'	MFWD 170	39,400	150	8	0.094	2.28	1.89	1.39	0.45	6.03	2.91	3.10	12.05
Grain Drill	24'	MFWD 190	65,600	150	8	0.078	1.90	1.76	1.93	0.46	6.07	4.03	3.15	13.26
Grain Drill	30'	MFWD 225	63,800	150	8	0.062	1.52	1.67	1.50	0.44	5.15	3.14	3.03	11.32
Grain Drill	35'	MFWD 225	91,000	150	8	0.053	1.30	1.43	1.83	0.38	4.96	3.84	2.60	11.40
Grain Drill & Pre	10'	2WD 130	35,400	150	8	0.203	4.93	3.12	2.69	0.69	11.45	5.63	4.56	21.64
Grain Drill & Pre	12'	2WD 130	34,800	150	8	0.169	4.10	2.60	2.20	0.58	9.50	4.61	3.80	17.92
Grain Drill & Pre	15'	MFWD 150	40,400	150	8	0.135	3.28	2.40	2.05	0.59	8.33	4.28	3.87	16.49
Grain Drill & Pre	20'	MFWD 170	46,700	150	8	0.101	2.46	2.04	1.77	0.49	6.77	3.71	3.34	13.84
Grain Drill & Pre	24'	MFWD 190	73,000	150	8	0.084	2.05	1.90	2.31	0.49	6.77	4.84	3.40	15.01
Grain Drill & Pre	30'	MFWD 225	71,200	150	8	0.067	1.64	1.80	1.80	0.48	5.73	3.77	3.26	12.77
Grain Drill & Pre	35'	MFWD 225	98,300	150	8	0.058	1.40	1.54	2.13	0.41	5.50	4.47	2.80	12.77
Grain Drill & Pre T	8R-38	MFWD 225	51,900	150	8	0.062	1.52	1.67	1.22	0.44	4.86	2.55	3.03	10.46
Harrow - Folding	24'	MFWD 190	13,700	200	10	0.064	0.98	1.45	0.31	0.38	3.13	0.50	2.60	6.24
Harrow - Folding	30'	MFWD 190	14,800	200	10	0.051	0.78	1.16	0.26	0.30	2.52	0.44	2.08	5.04
Harrow - Folding	40'	MFWD 190	20,200	200	10	0.038	0.59	0.87	0.27	0.22	1.96	0.45	1.56	3.97
Harrow - Folding	48'	MFWD 225	24,900	200	10	0.032	0.49	0.86	0.28	0.22	1.86	0.46	1.56	3.89
Header - Corn	6R-30	265 hp	50,800	300	8	0.170	2.59	5.34	2.16	6.24	16.33	3.53	26.49	46.36
Header - Corn	6R-38	265 hp	51,400	300	8	0.134	2.04	4.21	1.72	4.92	12.91	2.82	20.91	36.65
Header - Corn	8R-30	265 hp	62,000	300	8	0.127	1.94	4.00	1.97	4.68	12.61	3.23	19.86	35.71
Header - Corn	8R-38	325 hp	67,000	300	8	0.100	1.53	3.88	1.69	4.02	11.14	2.76	17.09	30.99
Header - Corn	12R-20	325 hp	102,000	300	8	0.127	1.94	4.91	3.25	5.09	15.20	5.32	21.61	42.15
Header - Corn	12R-30	325 hp	103,000	300	8	0.085	1.29	3.27	2.19	3.39	10.16	3.58	14.41	28.15
Header - Draper (CL)	25' Rigid	265 hp	61,400	300	8	0.203	3.09	6.37	2.85	7.44	19.76	4.88	31.59	56.24
Header - Draper (CL)	30' Rigid	325 hp	71,500	300	8	0.169	2.57	6.51	2.77	6.75	18.61	4.74	28.64	52.00
Header - Draper (CL)	36' Rigid	355 hp	75,800	300	8	0.141	2.14	5.92	2.44	5.80	16.32	4.18	24.62	45.13
Header - Draper (CL)	40' Rigid	425 hp	80,300	300	8	0.126	1.93	6.38	2.33	5.61	16.27	3.99	23.84	44.10
Header - Draper (SL)	25' Rigid	325 hp	61,400	300	8	0.176	2.67	6.77	2.47	7.02	18.94	4.23	29.79	52.97
Header - Draper (SL)	30' Rigid	325 hp	71,500	300	8	0.146	2.23	5.64	2.40	5.85	16.13	4.10	24.82	45.06
Header - Draper (SL)	36' Rigid	355 hp	75,800	300	8	0.122	1.86	5.13	2.12	5.02	14.14	3.63	21.33	39.11
Header - Drapper	40' Rigid	425 hp	80,300	300	8	0.110	1.67	5.53	2.02	4.86	14.10	3.46	20.66	38.22
Header -RiceStrp(CL)	20'	265 hp	50,000	300	8	0.253	3.86	7.96	3.17	9.30	24.30	5.18	39.49	68.98
Header -RiceStrp(CL)	24'	325 hp	55,400	300	8	0.211	3.21	8.13	2.92	8.43	22.72	4.78	35.80	63.32
Header -RiceStrp(CL)	32'	325 hp	60,800	300	8	0.158	2.41	6.10	2.41	6.32	17.26	3.94	26.85	48.05
Header -RiceStrp(SL)	20'	265 hp	50,000	300	8	0.220	3.34	6.90	2.75	8.06	21.06	4.49	34.22	59.78
Header -RiceStrp(SL)	24'	325 hp	55,400	300	8	0.183	2.79	7.05	2.53	7.31	19.69	4.14	31.03	54.88
Header -RiceStrp(SL)	32'	325 hp	60,800	300	8	0.137	2.09	5.29	2.09	5.48	14.95	3.41	23.27	41.65

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2020 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total Direct	---Fixed---	Total Cost
			dollars	hours	years	hr/acre				\$/acre		
Header -Soybean	22' Flex	265 hp	33,500	300	8	0.116	1.76	3.64	0.97	4.25	10.63	1.58 18.06 30.29
Header -Soybean	25' Flex	325 hp	35,900	300	8	0.102	1.55	3.93	0.91	4.07	10.47	1.49 17.29 29.27
Header -Soybean	30' Flex	325 hp	42,400	300	8	0.085	1.29	3.27	0.90	3.39	8.87	1.47 14.41 24.75
Header -Soybean	35' Flex	355 hp	48,700	300	8	0.072	1.11	3.06	0.88	3.00	8.06	1.45 12.74 22.26
Header Wheat/Sorghum	22' Rigid	265 hp	19,800	300	8	0.116	1.76	3.64	0.57	4.25	10.24	0.93 18.06 29.24
Header Wheat/Sorghum	25' Rigid	325 hp	21,000	300	8	0.102	1.55	3.93	0.53	4.07	10.09	0.87 17.29 28.27
Header Wheat/Sorghum	30' Rigid	325 hp	25,700	300	8	0.085	1.29	3.27	0.54	3.39	8.51	0.89 14.41 23.82
Land Plane	50'x16'	MFWD 190	10,800	200	10	0.151	2.30	3.41	0.32	0.89	6.94	0.94 6.09 13.97
Levee Pull & Seed	8 Blade	MFWD 170	9,000	100	10	0.003	0.05	0.07	0.00	0.01	0.14	0.03 0.11 0.30
Levee Pull (1m/80a)	8 blade	MFWD 170	8,160	100	10	0.003	0.05	0.07	0.00	0.01	0.14	0.03 0.11 0.30
Levee Splitter (1/80)	32"	MFWD 150	8,160	100	10	0.004	0.06	0.07	0.00	0.01	0.16	0.03 0.11 0.32
Module Builder	4R-38(250)	MFWD 190	34,700	200	10	0.257	6.25	5.79	2.23	1.52	15.81	4.97 10.36 31.15
Module Builder	4R-38(350)	MFWD 190	34,700	200	10	0.257	6.25	5.79	2.23	1.52	15.81	4.97 10.36 31.15
Module Builder	4R2x1(350)	MFWD 190	34,700	200	10	0.172	4.18	3.87	1.49	1.01	10.57	3.32 6.92 20.82
Module Builder	6R-30(355)	MFWD 190	34,700	200	10	0.218	5.29	4.90	1.89	1.28	13.39	4.21 8.77 26.37
Module Builder	6R-38(355)	MFWD 190	34,700	200	10	0.172	4.18	3.87	1.49	1.01	10.57	3.32 6.92 20.82
NT Grain Drill	10'	2WD 130	34,100	150	8	0.235	5.72	3.62	3.01	0.81	13.17	6.30 5.29 24.77
NT Grain Drill	12'	2WD 130	46,100	150	8	0.163	3.97	2.51	2.82	0.56	9.88	5.91 3.67 19.47
NT Grain Drill	15'	MFWD 150	55,500	150	8	0.130	3.17	2.32	2.72	0.57	8.80	5.69 3.74 18.24
NT Grain Drill	20'	MFWD 170	65,100	150	8	0.098	2.38	1.97	2.39	0.47	7.23	5.01 3.23 15.48
NT Grain Drill	24'	MFWD 190	90,400	150	8	0.081	1.98	1.84	2.77	0.48	7.08	5.79 3.28 16.17
NT Grain Drill	30'	MFWD 225	103,000	150	8	0.065	1.58	1.74	2.52	0.46	6.32	5.28 3.16 14.77
NT Grain Drill & Pre	10'	2WD 130	41,500	150	8	0.211	5.13	3.25	3.29	0.72	12.41	6.88 4.75 24.04
NT Grain Drill & Pre	12'	2WD 130	53,400	150	8	0.176	4.28	2.71	3.53	0.60	11.12	7.37 3.96 22.46
NT Grain Drill & Pre	15'	MFWD 150	62,900	150	8	0.141	3.42	2.50	3.32	0.61	9.87	6.95 4.03 20.85
NT Grain Drill & Pre	20'	MFWD 170	72,500	150	8	0.105	2.56	2.12	2.87	0.51	8.08	6.01 3.48 17.58
NT Grain Drill & Pre	24'	MFWD 190	97,800	150	8	0.088	2.14	1.98	3.23	0.52	7.87	6.75 3.54 18.17
NT Grain Drill & Pre	30'	MFWD 225	110,700	150	8	0.070	1.71	1.87	2.92	0.50	7.01	6.11 3.40 16.53
NT Plant&Pre-Folding	8R-38	MFWD 170	67,100	150	8	0.083	2.03	1.68	2.10	0.40	6.22	4.39 2.75 13.37
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	99,600	150	8	0.055	1.35	1.12	2.07	0.26	4.82	4.34 1.83 11.00
NT Plant&Pre-Folding	12R-20	MFWD 190	83,300	150	8	0.105	2.56	2.37	3.30	0.62	8.87	6.90 4.25 20.03
NT Plant&Pre-Folding	12R-30	MFWD 190	89,600	150	8	0.070	1.71	1.58	2.36	0.41	6.08	4.95 2.83 13.86
NT Plant&Pre-Folding	12R-38	MFWD 190	99,600	150	8	0.055	1.35	1.25	2.07	0.32	5.01	4.34 2.23 11.59
NT Plant&Pre-Folding	16R-30	MFWD 190	129,000	150	8	0.052	1.28	1.18	2.55	0.31	5.34	5.34 2.12 12.81
NT Plant&Pre-Folding	23R-15	MFWD 190	163,000	150	8	0.073	1.78	1.65	4.48	0.43	8.35	9.38 2.95 20.69
NT Plant&Pre-Folding	24R-20	MFWD 190	182,000	150	8	0.052	1.28	1.18	3.60	0.31	6.39	7.54 2.12 16.06
NT Plant&Pre-Folding	24R-30	MFWD 190	208,000	150	8	0.035	0.85	0.79	2.75	0.20	4.60	5.74 1.41 11.77
NT Plant&Pre-Folding	31R-15	MFWD 225	194,000	150	8	0.054	1.32	1.45	3.97	0.38	7.14	8.31 2.63 18.09
NT Plant&Pre-Folding	32R-15	MFWD 225	210,000	150	8	0.052	1.28	1.40	4.16	0.37	7.23	8.70 2.55 18.48
NT Plant&Pre-Rigid	4R-30	2WD 130	34,600	150	8	0.211	5.13	3.25	2.74	0.72	11.86	5.73 4.75 22.35
NT Plant&Pre-Rigid	4R-38	2WD 130	35,600	150	8	0.166	4.04	2.56	2.22	0.57	9.40	4.64 3.74 17.79
NT Plant&Pre-Rigid	6R-30	MFWD 150	43,700	150	8	0.141	3.42	2.50	2.31	0.61	8.85	4.83 4.03 17.72
NT Plant&Pre-Rigid	6R-38	MFWD 150	42,900	150	8	0.111	2.70	1.97	1.79	0.48	6.95	3.74 3.18 13.88
NT Plant&Pre-Rigid	8R-30	MFWD 170	54,300	150	8	0.105	2.56	2.12	2.15	0.51	7.36	4.50 3.48 15.35
NT Plant&Pre-Rigid	8R-38	MFWD 170	51,700	150	8	0.083	2.03	1.68	1.62	0.40	5.73	3.38 2.75 11.88
NT Plant&Pre-Rigid	11R-15	MFWD 170	63,600	150	8	0.143	3.49	2.89	3.43	0.69	10.51	7.17 4.74 22.43
NT Plant&Pre-Rigid	11R-20	MFWD 170	62,900	150	8	0.115	2.80	2.32	2.72	0.55	8.41	5.69 3.80 17.92
NT Plant&Pre-Rigid	12R-20	MFWD 190	65,900	150	8	0.105	2.56	2.37	2.61	0.62	8.18	5.46 4.25 17.90
NT Plant&Pre-Rigid	12R-30	MFWD 190	79,300	150	8	0.070	1.71	1.58	2.09	0.41	5.81	4.38 2.83 13.02
NT Plant&Pre-Rigid	15R-15	MFWD 190	80,900	150	8	0.113	2.74	2.54	3.43	0.66	9.39	7.17 4.54 21.11
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	154,000	150	8	0.055	1.35	1.48	3.21	0.39	6.44	6.71 2.68 15.85
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	123,000	150	8	0.083	2.03	2.22	3.85	0.59	8.70	8.06 4.03 20.80
NT Plant-Folding	8R-38	MFWD 170	59,700	150	8	0.077	1.88	1.56	1.73	0.37	5.56	3.63 2.55 11.75
NT Plant-Folding	8R-38 2x1	MFWD 170	91,000	150	8	0.051	1.25	1.04	1.76	0.25	4.30	3.68 1.70 9.70
NT Plant-Folding	12R-20	MFWD 190	75,900	150	8	0.098	2.38	2.20	2.79	0.58	7.96	5.84 3.94 17.75
NT Plant-Folding	12R-30	MFWD 190	81,000	150	8	0.065	1.58	1.47	1.98	0.38	5.43	4.15 2.63 12.22
NT Plant-Folding	12R-38	MFWD 190	91,000	150	8	0.051	1.25	1.16	1.76	0.30	4.48	3.68 2.07 10.25
NT Plant-Folding	16R-30	MFWD 190	120,000	150	8	0.049	1.19	1.10	2.20	0.29	4.79	4.61 1.97 11.38
NT Plant-Folding	23R-15	MFWD 190	155,000	150	8	0.068	1.65	1.53	3.96	0.40	7.55	8.28 2.74 18.58
NT Plant-Folding	24R-20	MFWD 190	174,000	150	8	0.049	1.19	1.10	3.20	0.29	5.79	6.69 1.97 14.46
NT Plant-Folding	24R-30	MFWD 190	194,000	150	8	0.032	0.79	0.73	2.38	0.19	4.10	4.97 1.31 10.40
NT Plant-Folding	31R-15	MFWD 225	185,000	150	8	0.050	1.23	1.35	3.52	0.36	6.46	7.36 2.45 16.27
NT Plant-Folding	32R-15	MFWD 225	201,000	150	8	0.049	1.19	1.30	3.70	0.34	6.55	7.73 2.37 16.65
NT Plant-Rigid	4R-30	2WD 130	27,200	150	8	0.196	4.76	3.02	2.00	0.67	10.47	4.18 4.41 19.07
NT Plant-Rigid	4R-38	2WD 130	28,200	150	8	0.154	3.75	2.38	1.63	0.53	8.30	3.41 3.47 15.19
NT Plant-Rigid	6R-30	MFWD 150	36,300	150	8	0.130	3.17	2.32	1.78	0.57	7.86	3.72 3.74 15.33
NT Plant-Rigid	6R-38	MFWD 150	35,600	150	8	0.103	2.51	1.83	1.38	0.45	6.17	2.88 2.95 12.01
NT Plant-Rigid	8R-30	MFWD 170	46,900	150	8	0.098	2.38	1.97	1.72	0.47	6.56	3.61 3.23 13.41
NT Plant-Rigid	8R-38	MFWD 170	44,300	150	8	0.077	1.88	1.56	1.28	0.37	5.11	2.69 2.55 10.36
NT Plant-Rigid	11R-15	MFWD 170	56,200	150	8	0.133	3.24	2.68	2.81	0.64	9.39	5.88 4.40 19.68
NT Plant-Rigid	11R-20	MFWD 170	55,500	150	8	0.107	2.60	2.16	2.23	0.51	7.52	4.66 3.53 15.72
NT Plant-Rigid	12R-20	MFWD 190	58,600	150	8	0.098	2.38	2.20	2.15	0.58	7.33	4.51 3.94 15.78
NT Plant-Rigid	12R-30	MFWD 190	70,700	150	8	0.065	1.58	1.47	1.73	0.38	5.18	3.62 2.63 11.44
NT Plant-Rigid	15R-15	MFWD 190	72,300	150	8	0.105	2.55	2.36	2.84	0.62	8.38	5.95 4.22 18.55
NT Plant-TwinRow	12R-30/40	MFWD 225	145,000	150	8	0.051	1.25	1.37	2.81	0.36	5.80	5.87 2.49 14.17
NT Plant-TwinRow	8R-30/40	MFWD 225	115,000	150	8	0.077	1.88	2.06	3.34	0.55	7.85	6.99 3.74 18.59
Peanut Cond. & Lifter	6-Row	MFWD 190	14,400	300	20	0.100	1.52	2.24	0.24	0.59	4.60	0.40 9.02
Peanut Conditioner	6-Row	MFWD 190	16,900	300	20	0.100	1.52	2.24	0.33	0.59	4.69	0.42 9.14
Peanut Dig/Invertor	4R-30	MFWD 190	32,500	300	15	0.235	3.58	5.30	1.90	1.39	12.19	2.51 9.47 24.18
Peanut Dig/Invertor	4R-38	MFWD 190	32,500	300	15	0.186	2.83	4.18	1.50	1.09	9.62	1.98 7.48 19.09

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2020 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost	
									Imp.	P.U.		Imp.	P.U.		
			dollars	hours	years	hr/ac	-----\$/acre-----								
Peanut Dig/Invertor	6R-38	MFWD 190	46,500	300	15	0.124	1.88	2.79	1.01	0.73	6.42	1.89	4.98	13.30	
Peanut Dump Cart	6-Row	MFWD 190	52,400	300	20	0.310	4.71	6.97	0.94	1.83	14.46	4.38	12.45	31.31	
Peanut Harvester	4R-30	MFWD 225	150,000	300	20	0.849	12.93	22.64	7.22	6.02	48.83	32.18	41.02	122.04	
Peanut Harvester	4R-38	MFWD 225	150,000	300	20	0.934	14.22	24.89	7.94	6.62	53.69	36.62	45.11	135.42	
Peanut Harvester	6R-38	MFWD 225	165,000	300	20	0.625	9.51	16.64	4.98	4.43	35.57	26.94	30.16	92.68	
Peanut Lifter	6-Row	MFWD 225	7,160	300	20	0.100	1.52	2.66	0.14	0.70	5.04	0.18	4.82	10.05	
Peanut Plt&Pre Fold.	12R-38	MFWD 190	88,900	150	8	0.080	1.95	1.80	2.68	0.47	6.91	5.60	3.23	15.75	
Peanut Plt&Pre Rigid	8R-30	MFWD 190	47,100	150	8	0.152	3.70	3.43	2.69	0.90	10.74	5.64	6.14	22.52	
Peanut Plt&Pre Rigid	8R-38	MFWD 190	44,600	150	8	0.120	2.93	2.71	2.01	0.71	8.38	4.22	4.85	17.45	
Peanut Plt&Pre Twin	8R-30/40	MFWD 190	114,000	150	8	0.120	2.93	2.71	5.16	0.71	11.52	10.79	4.85	27.17	
Pipe Spool 160ac	1/4m roll	2WD 130	5,400	15	12	0.003	0.10	0.04	0.00	0.01	0.17	0.11	0.07	0.35	
Pipe Trailer 1m/160a	30'	2WD 130	2,700	100	15	0.003	0.19	0.05	0.00	0.01	0.26	0.00	0.08	0.35	
Plant & Pre-Folding	8R-38	MFWD 170	59,900	150	8	0.080	1.94	1.61	1.80	0.38	5.75	3.76	2.64	12.17	
Plant & Pre-Folding	8R-38 2x1	MFWD 170	88,900	150	8	0.053	1.29	1.07	1.78	0.25	4.41	3.72	1.76	9.89	
Plant & Pre-Folding	12R-20	MFWD 190	72,600	150	8	0.101	2.46	2.28	2.76	0.59	8.11	5.77	4.08	17.97	
Plant & Pre-Folding	12R-30	MFWD 190	78,900	150	8	0.067	1.64	1.52	2.00	0.39	5.56	4.18	2.72	12.47	
Plant & Pre-Folding	12R-38	MFWD 190	88,900	150	8	0.053	1.29	1.20	1.78	0.31	4.59	3.72	2.14	10.46	
Plant & Pre-Folding	16R-30	MFWD 190	115,000	150	8	0.050	1.23	1.14	2.18	0.29	4.86	4.57	2.04	11.48	
Plant & Pre-Folding	23R-15	MFWD 190	143,000	150	8	0.070	1.71	1.58	3.78	0.41	7.49	7.90	2.83	18.23	
Plant & Pre-Folding	24R-20	MFWD 190	161,000	150	8	0.050	1.23	1.14	3.06	0.29	5.73	6.40	2.04	14.18	
Plant & Pre-Folding	24R-30	MFWD 190	186,000	150	8	0.033	0.82	0.76	2.36	0.19	4.14	4.93	1.36	10.43	
Plant & Pre-Folding	31R-15	MFWD 225	166,000	150	8	0.052	1.27	1.39	3.26	0.37	6.31	6.82	2.53	15.66	
Plant & Pre-Folding	32R-15	MFWD 225	181,000	150	8	0.050	1.23	1.35	3.44	0.36	6.39	7.20	2.45	16.04	
Plant & Pre-Rigid	4R-30	2WD 130	31,000	150	8	0.203	4.93	3.12	2.36	0.69	11.11	4.93	4.56	20.61	
Plant & Pre-Rigid	4R-38	2WD 130	32,000	150	8	0.159	3.88	2.46	1.91	0.54	8.81	4.01	3.59	16.41	
Plant & Pre-Rigid	6R-30	MFWD 150	38,300	150	8	0.135	3.28	2.40	1.94	0.59	8.22	4.06	3.87	16.16	
Plant & Pre-Rigid	6R-38	MFWD 150	37,600	150	8	0.106	2.59	1.89	1.50	0.46	6.46	3.14	3.05	12.67	
Plant & Pre-Rigid	8R-30	MFWD 170	47,100	150	8	0.101	2.46	2.04	1.79	0.49	6.79	3.74	3.34	13.88	
Plant & Pre-Rigid	8R-38	MFWD 170	44,600	150	8	0.080	1.94	1.61	1.34	0.38	5.29	2.80	2.64	10.74	
Plant & Pre-Rigid	11R-15	MFWD 170	53,800	150	8	0.148	3.59	2.98	2.99	0.71	10.29	6.25	4.88	21.42	
Plant & Pre-Rigid	11R-20	MFWD 170	53,000	150	8	0.110	2.69	2.23	2.20	0.53	7.67	4.60	3.65	15.93	
Plant & Pre-Rigid	12R-20	MFWD 190	55,200	150	8	0.101	2.46	2.28	2.10	0.59	7.45	4.39	4.08	15.92	
Plant & Pre-Rigid	12R-30	MFWD 190	68,600	150	8	0.067	1.64	1.52	1.74	0.39	5.30	3.63	2.72	11.66	
Plant & Pre-Rigid	15R-15	MFWD 190	67,500	150	8	0.108	2.63	2.44	2.74	0.64	8.46	5.74	4.36	18.58	
Plant & Pre-TwinRow	12R-30/40	MFWD 225	143,000	150	8	0.053	1.29	1.42	2.86	0.37	5.96	5.98	2.57	14.53	
Plant & Pre-TwinRow	8R-30/40	MFWD 225	116,000	150	8	0.080	1.94	2.13	3.49	0.56	8.14	7.29	3.87	19.32	
Plant - Folding	8R-38	MFWD 170	52,600	150	8	0.074	1.80	1.49	1.47	0.36	5.14	3.07	2.45	10.66	
Plant - Folding	8R-38 2x1	MFWD 170	80,200	150	8	0.049	1.20	0.99	1.49	0.24	3.93	3.11	1.63	8.69	
Plant - Folding	12R-20	MFWD 190	65,200	150	8	0.094	2.28	2.12	2.30	0.55	7.27	4.81	3.78	15.88	
Plant - Folding	12R-30	MFWD 190	70,300	150	8	0.062	1.52	1.41	1.65	0.37	4.96	3.46	2.52	10.95	
Plant - Folding	12R-38	MFWD 190	80,200	150	8	0.049	1.20	1.11	1.49	0.29	4.10	3.11	1.99	9.21	
Plant - Folding	16R-30	MFWD 190	10,600	150	8	0.047	1.14	1.06	0.18	0.27	2.67	0.39	1.89	4.95	
Plant - Folding	23R-15	MFWD 190	134,000	150	8	0.065	1.58	1.47	3.29	0.38	6.73	6.87	2.63	16.24	
Plant - Folding	24R-20	MFWD 190	152,000	150	8	0.047	1.14	1.06	2.68	0.27	5.17	5.61	1.89	12.68	
Plant - Folding	24R-30	MFWD 190	178,000	150	8	0.031	0.76	0.70	2.09	0.18	3.75	4.38	1.26	9.40	
Plant - Folding	31R-15	MFWD 225	157,000	150	8	0.048	1.18	1.29	2.86	0.34	5.69	5.99	2.35	14.04	
Plant - Folding	32R-15	MFWD 225	173,000	150	8	0.047	1.14	1.25	3.05	0.33	5.79	6.39	2.27	14.46	
Plant - Rigid	4R-30	2WD 130	23,600	150	8	0.188	4.57	2.90	1.66	0.64	9.79	3.48	4.23	17.52	
Plant - Rigid	4R-38	2WD 130	24,700	150	8	0.148	3.60	2.28	1.37	0.51	7.77	2.87	3.33	13.98	
Plant - Rigid	6R-30	MFWD 150	30,900	150	8	0.125	3.05	2.23	1.45	0.54	7.29	3.04	3.59	13.93	
Plant - Rigid	6R-38	MFWD 150	30,200	150	8	0.099	2.40	1.76	1.12	0.43	5.73	2.34	2.83	10.91	
Plant - Rigid	8R-30	MFWD 170	39,800	150	8	0.094	2.28	1.89	1.40	0.45	6.05	2.94	3.10	12.10	
Plant - Rigid	8R-38	MFWD 170	37,200	150	8	0.074	1.80	1.49	1.03	0.36	4.71	2.17	2.45	9.33	
Plant - Rigid	11R-15	MFWD 170	46,400	150	8	0.137	3.34	2.77	2.39	0.66	9.17	5.00	4.53	18.71	
Plant - Rigid	11R-20	MFWD 170	45,700	150	8	0.103	2.50	2.07	1.76	0.49	6.84	3.69	3.39	13.92	
Plant - Rigid	12R-20	MFWD 190	47,900	150	8	0.094	2.28	2.12	1.69	0.55	6.66	3.54	3.78	13.99	
Plant - Rigid	12R-30	MFWD 190	60,000	150	8	0.062	1.52	1.41	1.41	0.37	4.72	2.95	2.52	10.20	
Plant - Rigid	15R-15	2WD 150	58,900	150	8	0.094	2.28	1.67	2.08	0.31	6.36	4.35	2.08	12.79	
Plant - TwinRow	12R-30/40	MFWD 225	134,000	150	8	0.049	1.20	1.32	2.49	0.35	5.37	5.21	2.39	12.97	
Plant - TwinRow	8R-30/40	MFWD 225	108,000	150	8	0.074	1.80	1.98	3.01	0.52	7.34	6.30	3.59	17.24	
Roller/Cultipacker	20'	MFWD 150	15,800	300	12	0.074	1.13	1.32	0.27	0.32	3.06	0.41	2.13	5.62	
Roller/Cultipacker	30'	MFWD 170	19,400	300	12	0.049	0.75	1.00	0.22	0.24	2.22	0.34	1.64	4.21	
Roller/Cultipacker	38'	MFWD 225	21,800	300	12	0.039	0.59	1.04	0.20	0.27	2.12	0.30	1.89	4.32	
Roller/Stubble	20'	2WD 50	13,800	300	12	0.074	1.13	0.44	0.24	0.05	1.87	0.36	0.32	2.56	
Roller/Stubble	32'	MFWD 225	23,300	300	12	0.046	0.71	1.24	0.25	0.33	2.54	0.38	2.25	5.17	
Rotary Cutter	7'	MFWD 130	5,280	185	10	0.168	2.56	2.59	0.72	0.65	6.53	0.55	4.29	11.38	
Rotary Cutter	12'	2WD 150	12,100	185	10	0.098	1.49	1.74	0.96	0.33	4.53	0.73	2.16	7.43	
Rotary Cutter-Flex	15'	MFWD 150	22,100	185	10	0.078	1.19	1.39	1.40	0.34	4.34	1.07	2.24	7.66	
Rotary Cutter-Flex	20'	MFWD 150	29,900	185	10	0.058	0.89	1.04	1.42	0.25	3.62	1.09	1.68	6.41	
Row Cond & Inc-Fold.	26'	MFWD 190	28,500	100	10	0.063	1.25	1.42	0.45	0.37	3.50	2.07	2.55	8.13	
Row Cond & Inc-Fold.	38'	MFWD 225	38,200	100	10	0.043	0.85	1.15	0.41	0.30	2.73	1.90	2.09	6.73	
Row Cond & Inc-Rigid	13'	2WD 130	16,900	100	10	0.126	2.50	1.95	0.53	0.43	5.43	2.46	2.85	10.75	
Row Cond & Inc-Rigid	21'	2WD 170	20,800	100	10	0.078	1.55	1.58	0.40	0.29	3.83	1.87	1.98	7.70	
Row Cond & Inc-Rigid	26'	MFWD 190	24,000	100	10	0.026	0.52	0.59	0.15	0.15	1.44	0.73	1.06	3.24	
Row Cond Folding	26'	MFWD 225	21,100	100	10	0.059	0.90	1.59	0.31	0.42	3.23	1.44	2.88	7.57	
Row Cond Folding	38'	MFWD 225	29,600	100	10	0.040	0.62	1.08	0.30	0.28	2.30	1.39	1.97	5.66	
Row Cond Rigid	13'	2WD 130	9,540	100	10	0.119	1.81	1.83	0.28	0.41	4.35	1.31	2.68	8.34	
Row Cond Rigid	21'	2WD 170	13,400	100	10	0.073	1.12	1.48	0.24	0.27	3.13	1.13	1.87	6.14	
Row Cond Rigid	26'	MFWD 190	16,700	100	10	0.059	0.90	1.34	0.24	0.35	2.85	1.14	2.40	6.40	
Row Cond./Roll-Fold.	26'	MFWD 190	19,800	160	10	0.072	1.09	1.62	0.35	0.42	3.50	1.02	2.89	7.42	

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2020 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Row Cond./Roll-Fold.	40'	MFWD 225	26,700	160	10	0.046	0.71	1.24	0.31	0.33	2.60	0.89	2.26	5.77
Spin Spreader	5 ton	MFWD 190	12,900	100	8	0.042	1.02	0.94	0.30	0.24	2.52	0.66	1.69	4.87
Spray (ATV Ropewick)	75"	800 CC	720	200	8	0.260	5.14	0.40	0.08	0.49	6.12	0.11	2.10	8.34
Spray (ATV)	20'	800 CC	1,690	200	8	0.084	1.67	0.13	0.06	0.16	2.02	0.08	0.68	2.80
Spray (Band)	27' Fold	MFWD 170	7,400	200	8	0.062	1.23	1.26	0.21	0.30	3.02	0.28	2.06	5.37
Spray (Band)	40' Fold	MFWD 170	8,600	200	8	0.042	0.83	0.85	0.17	0.20	2.06	0.22	1.39	3.68
Spray (Band)	50' Fold	MFWD 170	13,700	200	8	0.033	0.66	0.68	0.21	0.16	1.73	0.28	1.11	3.13
Spray (Band)	60' Fold	MFWD 170	15,600	200	8	0.028	0.55	0.56	0.20	0.13	1.46	0.26	0.92	2.66
Spray (Bcast/HB)	13' Rigid	MFWD 150	6,900	200	8	0.130	2.57	2.31	0.42	0.56	5.87	0.55	3.72	10.14
Spray (Bcast/HB)	20' Rigid	MFWD 150	8,100	200	8	0.084	1.67	1.50	0.32	0.37	3.86	0.42	2.42	6.70
Spray (Bcast/HB)	27' Fold	MFWD 170	15,400	200	8	0.062	1.23	1.26	0.45	0.30	3.25	0.59	2.06	5.91
Spray (Bcast/HB)	27' Rigid	MFWD 170	9,800	200	8	0.062	1.23	1.26	0.28	0.30	3.09	0.37	2.06	5.53
Spray (Bcast/HB)	30' Fold	MFWD 170	18,930	200	8	0.056	1.11	1.13	0.50	0.27	3.02	0.65	1.85	5.53
Spray (Bcast/HB)	40' Fold	MFWD 170	22,000	200	8	0.042	0.83	0.85	0.43	0.20	2.32	0.57	1.39	4.29
Spray (Broadcast)	27'	MFWD 170	7,400	200	8	0.062	1.23	1.26	0.21	0.30	3.02	0.28	2.06	5.37
Spray (Broadcast)	40'	MFWD 170	8,600	200	8	0.042	0.83	0.85	0.17	0.20	2.06	0.22	1.39	3.68
Spray (Broadcast)	50'	MFWD 170	13,700	200	8	0.033	0.66	0.68	0.21	0.16	1.73	0.28	1.11	3.13
Spray (Broadcast)	60'	MFWD 170	15,600	200	8	0.028	0.55	0.56	0.20	0.13	1.46	0.26	0.92	2.66
Spray (Direct/Hood)	8R-30	MFWD 170	20,400	200	8	0.084	1.67	1.70	0.80	0.40	4.59	1.05	2.78	8.44
Spray (Direct/Hood)	8R-38	MFWD 170	21,900	200	8	0.066	1.32	1.34	0.68	0.32	3.67	0.89	2.20	6.78
Spray (Direct/Hood)	12R-30	MFWD 170	25,300	200	8	0.056	1.11	1.13	0.66	0.27	3.19	0.87	1.85	5.92
Spray (Direct/Hood)	12R-38	MFWD 170	27,100	200	8	0.044	0.87	0.89	0.56	0.21	2.55	0.73	1.46	4.76
Spray (Direct/Layby)	8R-30	MFWD 170	11,300	200	8	0.084	1.67	1.70	0.44	0.40	4.23	0.58	2.78	7.60
Spray (Direct/Layby)	8R-38	MFWD 170	11,300	200	8	0.066	1.32	1.34	0.35	0.32	3.34	0.46	2.20	6.01
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	14,900	200	8	0.044	0.87	0.89	0.31	0.21	2.30	0.40	1.46	4.17
Spray (Direct/Layby)	12R-30	MFWD 170	14,900	200	8	0.056	1.11	1.13	0.39	0.27	2.91	0.51	1.85	5.29
Spray (Direct/Layby)	12R-38	MFWD 170	14,900	200	8	0.044	0.87	0.89	0.31	0.21	2.30	0.40	1.46	4.17
Spray (Direct/Layby)	16R-20	MFWD 225	22,300	200	8	0.062	1.23	1.66	0.65	0.44	4.00	0.85	3.02	7.88
Spray (Levee Leaper)	50'	MFWD 225	13,200	200	8	0.033	0.66	0.90	0.20	0.24	2.01	0.27	1.63	3.92
Spray (Pull Type)	60'	MFWD 225	40,700	200	8	0.028	0.55	0.75	0.53	0.20	2.04	0.70	1.36	4.11
Spray (Pull Type)	80'	MFWD 225	52,500	200	8	0.021	0.41	0.56	0.52	0.15	1.65	0.68	1.02	3.35
Spray (Pull Type)	90'	2WD 50	53,200	200	8	0.018	0.37	0.11	0.46	0.01	0.96	0.61	0.08	1.66
Spray (Pull Type)	120'	MFWD 225	80,900	200	8	0.014	0.27	0.37	0.53	0.10	1.28	0.69	0.68	2.66
Spray (Ropewick)	20'	MFWD 190	4,100	200	8	0.084	1.67	1.90	0.16	0.49	4.23	0.21	3.40	7.85
Spray (Spot)	27'	MFWD 170	7,400	200	8	0.062	1.23	1.26	0.21	0.30	3.02	0.28	2.06	5.37
Spray (Spot)	40'	MFWD 170	8,600	200	8	0.042	0.83	0.85	0.17	0.20	2.06	0.22	1.39	3.68
Spray (Spot)	50'	MFWD 170	13,700	200	8	0.033	0.66	0.68	0.21	0.16	1.73	0.28	1.11	3.13
Spray (Spot)	60'	MFWD 225	15,600	200	8	0.028	0.55	0.75	0.20	0.20	1.71	0.26	1.36	3.34
Stalk Shredder	14'	MFWD 150	14,500	200	10	0.117	1.79	2.09	1.49	0.51	5.89	0.98	3.37	10.25
Stalk Shredder Flex	20'	MFWD 150	30,200	200	10	0.082	1.25	1.46	2.18	0.36	5.26	1.43	2.35	9.05
Stalk Shredder-Flail	12'	MFWD 150	20,500	200	10	0.137	2.09	2.44	2.46	0.60	7.60	1.62	3.93	13.15
Stalk Shredder-Flail	15'	MFWD 150	23,800	200	10	0.110	1.67	1.95	2.29	0.48	6.39	1.50	3.14	11.05
Stalk Shredder-Flail	18'	MFWD 150	28,900	200	10	0.091	1.39	1.62	2.31	0.40	5.74	1.52	2.62	9.88
Stalk Shredder-Flail	20'	MFWD 150	30,100	200	10	0.082	1.25	1.46	2.17	0.36	5.25	1.42	2.35	9.04
Stalk Shredder-Flail	25'	MFWD 150	45,300	200	10	0.066	1.00	1.17	2.61	0.28	5.08	1.71	1.88	8.68
Subsoiler	3 shank	MFWD 190	5,920	100	15	0.204	3.10	4.59	0.40	1.20	9.31	1.11	8.21	18.64
Subsoiler	4 shank	MFWD 225	9,830	100	15	0.153	2.33	4.09	0.50	1.08	8.02	1.38	7.41	16.82
Subsoiler	5 shank	MFWD 225	13,900	100	15	0.122	1.86	3.25	0.56	0.86	6.55	1.56	5.90	14.02
Subsoiler low-till	6 shank	MFWD 225	15,300	100	15	0.102	1.55	2.72	0.52	0.72	5.52	1.43	4.93	11.89
Subsoiler low-till	8 shank	MFWD 225	22,000	100	15	0.076	1.16	2.03	0.56	0.54	4.30	1.54	3.69	9.55

Notes:

Labor: Includes labor from Power unit plus additional labor from the implement.

Total Direct: Does not include interest on operating capital.

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2020

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Artisan	oz	0.23
Agri-Dex	pt	2.43	Avaris	oz	1.65
AMS SuperMax	pt	3.81	Avicta Complete Bean	oz	3.65
Class Act NG	pt	2.44	Bravo Weather Stick	pt	6.35
Crop Oil Conc. (Pet.)	pt	3.00	Captan 50 WP	lb	4.28
Crop Oil Conc. (Veg.)	pt	3.22	Convoy	oz	0.78
Dyne-A-Pak	pt	5.45	Cotton Seed Trt.	acre	20.00
Fire-Zone	pt	3.07	CruiserMaxx	oz	4.18
Herbimax	pt	3.48	Echo	oz	0.41
Induce	pt	3.41	Elatus	oz	2.94
MSO	pt	3.55	Headline EC	oz	2.63
Penetrator Plus	pt	2.70	Miravis Top	oz	1.27
Surfactant	pt	5.31	Prior Xemium	oz	4.53
CLEANING			Propimax EC	pt	11.69
Cleaning Peanuts	ton	18.00	Prosaro	oz	2.45
CROP CONSULTANT			Provost Optimum	lb	1.64
Corn Consultant	acre	6.00	Quadris	oz	1.63
Cotton Consultant	acre	8.00	Quadris Top	oz	2.33
Peanut Consultant	acre	9.25	Quadris Top SBX	oz	2.36
Rice Consultant	acre	8.00	Quilt	pt	17.06
Sorghum Consultant	acre	6.00	Quilt XCEL	pt	23.43
Soybeans Consultant	acre	6.50	Stratego	pt	23.43
Wheat Consultant	acre	5.50	Stratego YLD	oz	3.51
CUSTOM FERTILIZE			Tebuconazole	oz	0.49
App Fert by Air	cwt	7.50	Tilt 3.6 EC	oz	0.72
App Fert by Air (Mi)	appl	7.50	Tilt/ Bravo SE	oz	1.00
Custom Apply Fert	acre	7.50	Trivapro	oz	1.53
CUSTOM LIME			GINNING		
Lime (Spread)	ton	43.00	Gin & Haul	lb	0.11
CUSTOM PLANT			GROWTH REGULATORS		
Custom Plant	acre	7.50	Mepex	oz	0.07
Custom Plant Air	cwt	7.50	Mepichlor 4.2%	oz	0.08
CUSTOM SPRAY			Mepiquat Chloride	oz	0.10
App by Air ( 3 gal)	appl	5.50	Mepstar 6	oz	0.39
App by Air ( 5 gal)	appl	7.00	Palisade	oz	1.28
App by Air (10 gal)	appl	9.00	Pentia	oz	0.85
Custom Spray Ground	acre	7.00	Pix Ultra	oz	0.21
DRYING			Stance	oz	1.23
Dry Corn	bu	0.19	Veto	oz	0.06
Dry Grain Sorghum	cwt	0.25	HARVEST AIDS		
Dry Peanuts	ton	24.00	Adios	oz	0.93
Dry Rice	bu	0.40	Aim 2EC	oz	5.68
ERADICATION FEE			Boll Buster	oz	0.18
Eradication	acre	1.00	Def/Folex	pt	8.61
FERTILIZERS			Defol 5	gal	6.54
Agrotain Ultra	pt	8.36	Display	oz	10.13
Amm Sulfate (21% N)	cwt	17.46	Ethephon 6E	pt	2.90
Boron Plus	pt	4.52	Finish 6	pt	9.37
DAP	cwt	22.64	Folex 6EC	pt	8.61
Fert 10-34-0	cwt	24.78	Freefall SC	oz	1.18
Fert 10-34-0	gal	2.90	Ginstar EC	pt	21.44
Fert 11-37-0	cwt	29.40	Gramoxone SL	oz	0.17
Fert 41-0-0-4	cwt	18.60	Sharpen	oz	5.66
Lime	ton	32.97	Sodium Chlorate 5L	gal	6.54
NBPT	pt	7.97	SuperBoll	oz	0.19
Phosphorus (46% P2O5)	cwt	18.11	Thidiazuron 4lb	oz	1.18
Potash (60% K2O)	cwt	27.50	Tribufos 6lb	pt	8.61
Sulfur Plus	pt	2.62	Vacate	oz	1.60
UAN (32% N)	cwt	13.62	HAULING		
UAN (32%)	gal	1.51	Haul Corn	bu	0.23
UAN + Sulfur (28%)	cwt	12.55	Haul Peanuts	ton	14.50
UAN + Sulfur (28%)	gal	1.39	Haul Rice	bu	0.35
Urea, Solid (46% N)	cwt	20.22	Haul Sorghum	bu	0.25
Zinc Plus	pt	2.99	Haul Soybeans	bu	0.27
FUNGICIDES			Haul Wheat	bu	0.26
Abound	oz	0.98	HERBICIDES		
Alfa Guard	lb	1.82	2,4-D Ester	pt	3.28
Approach Prima	pt	31.96	2,4-D Amine 4	pt	2.73
Apron Maxx RTA	oz	1.66	AAtrex 4L	pt	2.24

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2020 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Accent Q	oz	17.67	Halomax	oz	19.90
Acuron	oz	2.22	Harmony Extra SG	oz	13.81
Aim	oz	5.68	Helmet	oz	4.15
Anthem Flex	oz	2.67	Hero	pt	25.77
Anthem Maxx	oz	4.90	Huskie	oz	0.84
Armezon Pro	oz	1.16	Impact	oz	1.24
Atrazine 4L	pt	2.09	Intimidator	oz	0.59
Atrazine 90DF	lb	7.52	Leadoff	oz	5.15
Authority First	oz	4.50	League	oz	4.51
Authority Elite	pt	14.03	Lexar	pt	7.67
Authority Maxx	lb	49.72	Liberty 280	oz	0.49
Authority MTZ	lb	32.08	Loyant	oz	2.21
Avatar	pt	7.87	Makaze	oz	0.14
Avenger	pt	9.89	Metolachlor	pt	4.87
Axial XL	oz	1.21	Metribuzin 4L	pt	9.30
Axiom	oz	1.84	Metribuzin 75	lb	18.75
Banvel	pt	15.04	MSMA	pt	3.97
Barrage	pt	5.43	Newpath	oz	3.73
Basagran	pt	5.43	Oberon	oz	3.75
Boundary	pt	8.84	Obey	oz	0.91
Brake	oz	1.72	Osprey	oz	3.24
Broadaxe	pt	16.41	Outlook	pt	16.38
Broadhead	lb	58.21	Panther Pro	oz	3.35
Bucaneer Plus	pt	2.37	Parallel	pt	4.64
Bucril	pt	4.28	Paraquat	oz	0.19
Butyrac 200 (2,4-DB)	pt	3.49	Parazone 3SL	oz	0.19
Cadre	oz	3.10	Permit	oz	21.22
Canopy	oz	2.13	Permit Plus	oz	20.60
Caparol	pt	4.59	PowerFlex	oz	6.71
Capreno	oz	4.75	Prefix	pt	5.69
Cinch	pt	16.06	Provisia	oz	0.83
Cinch ATZ	pt	5.20	Prowl 3.3 EC	pt	5.30
Clarity	pt	11.60	Python WDG	oz	15.10
Classic	oz	14.02	Quelex	oz	7.00
Clearpath	lb	57.57	RealmQ	oz	4.66
Clethomine 2E	oz	0.50	RebelEx	oz	2.68
Clincher SF	oz	2.32	Reflex	pt	5.87
Cobra	oz	1.71	Regiment	oz	42.66
Command 3ME	pt	16.09	Resicore	oz	0.55
Corvus	oz	6.65	Resource	oz	1.72
Cotoran	pt	5.85	RiceBeaux	pt	5.79
Cotton Pro	pt	3.75	Riceshot	pt	3.92
Declare	oz	1.64	Ricestar HT	pt	24.04
Dicamba	pt	5.66	Ringside	pt	4.17
Direx	pt	3.01	Roundup Power Max	oz	0.20
Diuron	pt	3.53	Roundup PowerMax	pt	3.20
Dual II Magnum	pt	12.63	Roundup PowerMax ii	oz	0.20
Dual Magnum	pt	10.26	Roundup Pro	pt	0.20
Duet	pt	5.39	Scepter 70 DG	oz	4.50
Endigo	oz	1.80	Select Max	pt	10.87
Engenia	oz	0.83	Sencor/Tricor.Metrib	oz	5.45
Envive	oz	0.53	Sequence	pt	5.16
Envoke	oz	106.65	Sharpen	oz	5.66
Facet L	pt	13.61	Sinister	pt	14.61
Fierce	oz	7.44	Sonic	oz	4.63
Fierce XLT	oz	6.66	Stalwart	pt	3.95
Finesse	oz	14.38	Stam 80 EDF	lb	9.32
Firestorm	pt	5.97	Stam M4	qt	7.91
First Rate	oz	40.12	Staple LX	oz	1.95
Flexstar	pt	9.11	Storm	pt	11.58
Flexstar GT	pt	4.44	Strada	oz	6.65
Fusilade DX	oz	1.06	Strada Pro	oz	6.86
Gambit	oz	16.96	Strada XT2	pt	3.20
Glyphosate 3lbs a.e	pt	2.16	Superwham	qt	9.27
Glyphosate 3lbs a.e	oz	0.14	Suprend	lb	10.14
Goal 2XL	pt	7.77	SureStart II	oz	0.67
Gramoxone SL 2.0	oz	0.17	Surveil	oz	0.72
Grandstand R	pt	18.26	Synchrony XP	oz	11.72
Grasp	oz	12.03	Tempest	oz	1.84
Grasp Xtra	oz	1.68	Touchdown Total	qt	5.23
Halex GT	pt	6.24			(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2020 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Treflan	pt	3.37	Lambda	oz	1.71
Trifluralin	pt	3.36	Lannate LV	pt	9.85
Triflurex	pt	3.66	Macho	oz	0.53
Ultra Blazer	pt	10.69	Malathion 5E	pt	8.16
Valor EZ	oz	4.43	Malathion 8E	pt	5.50
Valor SX	oz	4.28	Mustang Max	oz	1.33
Valor XLT	oz	4.90	Nuprid 4F	oz	0.89
Vamos	pt	6.49	Orthene 90	lb	15.98
Verdict	oz	1.72	Permethrin	oz	0.63
Veritas	pt	7.49	Portal XLO	oz	0.88
Villain	pt	5.24	Pounce 25WP	lb	18.08
Volunteer	pt	10.63	Prevathon	oz	1.12
Warrant	pt	4.02	Radiant	oz	6.28
XtendiMax	oz	0.49	Sevin 4F	pt	6.22
Zidua DF	oz	8.23	Sevin XLR Plus	qt	15.09
Zidua SC	oz	5.75	Sivanto Prime	oz	2.54
INOCULANT			Straffer Max	oz	9.61
Inoculant -Soybean	acre	1.55	Tempest	oz	1.82
Optimize LIFT	oz	0.51	Transform WG	oz	7.38
INSECTICIDES			Up-Cyde	oz	0.43
Abamectin .15EC	oz	1.67	Warrior ZT	oz	2.57
Acephate 90%	lb	7.17	Zeal	oz	17.50
Acephate 90SP	lb	7.59	IRRIGATION SUPPLIES		
Admire Pro	oz	1.33	Roll-Out Pipe	ft	0.24
Agri-Mek	oz	2.96	SEED/PLANTS		
Asana .66 XL	oz	0.48	Corn Seed BtRR	thous	3.50
Avenger	oz	0.70	Corn Seed RR2	thous	3.50
Baythroid XL	oz	1.06	Corn Seed VT2P	thous	3.62
Belt	oz	7.50	Corn Seed Op Leptra	thous	4.39
Besiege	oz	1.93	Cotton Seed B3XF	thous	2.32
Bidrin 8EC	oz	1.28	Cotton Seed W3FE	thous	2.37
Bifenthrin	oz	0.82	Cot.Seed B3XF/W3FE	thous	2.34
Bifenture 2EC	oz	0.81	Peanut Seed	lb	0.84
Brigade EC	pt	14.70	Rice Clearfield	lb	0.95
Capture LFR	oz	2.36	Rice Clrfld Hyb Trt	lb	6.10
Centric 40WG	oz	4.89	Rice Conv Hyb Trt	lb	6.15
Cypermethrin	oz	0.55	Rice Seed CF (Levees)	lb	0.95
Declare	oz	1.87	Rice Seed CFH (Levee)	lb	2.67
Diamond .83EC	oz	1.31	Rice Seed Conv.	lb	0.28
Dimethoate 4E	pt	5.37	Rice Seed Cv (Levees)	lb	0.28
Dimilin 2L	oz	1.91	Rice Seed CvH (Levee)	lb	1.93
Force 3G	lb	7.23	Rice Seed Provisia	lb	1.08
Gaucho 600	oz	2.36	Rice Seed Trt/Insect	lbseed	0.29
Imidacloprid 4F	oz	0.62	Sorghum Concept+ Po	lb	3.96
Imidan 70 WSB	oz	0.71	Soybean Seed LL	lb	1.27
IncidentalPestTrt \$8	acre	8.00	Soybean Seed RR2	lb	1.39
IncidentalPestTrt \$15	acre	15.00	Soybean Seed RR2X	lb	1.32
IncidentalPestTrt \$22	acre	22.00	Wheat Seed Private	lb	0.24
IncidentalPestTrt \$30	acre	30.00	SOIL TEST		
Intrepid 2F	oz	2.15	Soil Test	acre	10.00
Intruder 70WSP	oz	9.05	SURVEY & MARK LEVEES		
Karate Z	oz	2.48	Survey & Mark Levees	acre	4.50

Appendix Table 5. Estimated fuel prices  
and interest rates, Mississippi, 2020

ITEM NAME	UNIT	PRICE
dollars		
FUEL TYPES		
Diesel Fuel	gal	2.30
Gasoline	gal	2.20
INTEREST RATES		
Short-term	%	5.25
Intermediate-term	%	6.25

Appendix Table 6. Labor types, wage rates and unallocated labor  
Multipliers for crop enterprises, Mississippi, 2020

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	15.22
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, 2020

Crop	uni	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 '20	4.06	-0.20	3.86	2.35	3.86
Cotton Lint	lb	Dec '20	0.6447	-0.0158	0.6289	0.52	0.6289
Cottonseed	lb						0.10 <sup>f</sup>
Grain Sorghum	bu				3.67	2.27	3.67
Peanuts	ton				400.00	370.00	400.00
Soybeans	bu	Nov '20	9.62	-0.02	9.60	6.41	9.60
Rice	bu	Nov '20	5.32	-0.37	4.95	3.20	4.95
Wheat	bu	Jul '20	4.39	-0.15	4.24	3.35	4.24

- <sup>a</sup> Average of the daily closing futures contract prices during the first 5 trading days in October 2019 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 2019 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 2019 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 2008-2018.

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, 2020

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						TOTAL	FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----dollars-----										
Land Plane	50'x16'		0.85	0.30	0.58		0.09	1.82	1.76	3.58
Set Up Engine										
IRRIGATE LABOR	hour				0.23		0.01	0.24		0.24
Ditcher (1m/160a)			0.19	0.07	0.14		0.01	0.41	0.34	0.75
Roll-Out Pipe	ft	7.92					0.14	8.06		8.06
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll		0.25	0.10	0.42		0.01	0.78	0.88	1.66
IRRIGATE LABOR	hour				1.81		0.03	1.84		1.84
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Pick Up Pipe										
Pipe Spool 160ac	1/4m roll		0.38	0.15	0.63		0.01	1.17	1.32	2.49
Land Forming (\$450)	each								36.04	36.04
Well & Pump, Furrow	each			2.96			0.05	3.01	9.86	12.87
Main Line Pipe	each								5.45	5.45
Engine, RPF, ESB	each								9.34	9.34
1st June Irrigation	ac-in		5.62	1.31			0.12	7.05		7.05
2nd June Irrigation	ac-in		5.62	1.31			0.12	7.05		7.05
July Irrigation	ac-in		5.62	1.31			0.09	7.02		7.02
TOTALS		7.92	18.53	7.51	4.50	0.00	0.68	39.14	64.99	104.13

Note: Cost of production estimates are based on 2019 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, 2020

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		0.32	0.11	0.24			0.01	0.68	0.68
Survey & Mark Levees	acre	2.25						0.05	2.30	2.30
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.43	0.13	0.33			0.02	0.91	0.91
Butt Levees										
Blade-Box	6'-7'		0.40	0.12	0.30			0.02	0.84	0.67
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"		0.34	0.11	0.25			0.02	0.72	0.71
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.43	0.13	0.33			0.02	0.91	0.91
Butt Levees										
Blade-Box	6'-7'		0.40	0.12	0.30			0.01	0.83	0.67
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"		0.34	0.11	0.25			0.01	0.71	0.71
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.43	0.13	0.33			0.01	0.90	0.91
Butt Levees										
Blade-Box	6'-7'		0.40	0.12	0.30			0.01	0.83	0.67
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"		0.34	0.11	0.25			0.01	0.71	0.71
Build Inside Levees										
Levee Splitter (1/80)	32"		0.25	0.08	0.19				0.52	0.53
Land Forming (\$113)	each									9.05
Well & Pump, Flood	each			5.91				0.13	6.04	19.72
Engine, CF, 75	each									18.68
June Irrigation	ac-in		8.43	2.63				0.24	11.30	11.30
July Irrigation	ac-in		8.43	2.63				0.19	11.25	11.25
August Irrigation	ac-in		8.43	2.63				0.15	11.21	11.21
TOTALS		2.25	29.37	15.07	5.89	0.00		0.94	53.52	55.53
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Note: Cost of production estimates are based on 2019 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, 2020

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER		
-----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			0.19	8.79	38.27
Well & Pump, 1/2 CP	each			1.13			0.02	1.15	3.78
Engine, 1/2 CP, 174	each								4.87
June Irr. 3app@.75"	ac-in		11.32	0.62			0.26	12.20	12.20
July Irr. 4app@.75"	ac-in		15.09	0.82			0.28	16.19	16.19
Aug Irr. 3app@.75"	ac-in		11.32	0.62			0.16	12.10	12.10
TOTALS		0.00	37.73	11.79	0.47	0.00	0.92	50.91	46.92

Note: Cost of production estimates are based on 2019 input prices.

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