

**SOYBEANS  
2023  
PLANNING BUDGETS**

**Mississippi State University  
Department of Agricultural Economics  
Budget Report 2022-02**

**November 2022**



## 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 2023 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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 Brian Mills, MSU-ES, Co-Chair  
 Erick Larson, MSU-ES/MAFES  
 Jason Bond, MSU-ES/MAFES  
 Angus Catchot, MAFES  
 Don Cook, MAFES  
 Whitney Crow, MSU-ES  
 Drew Gholson, MSU-ES/MAFES  
 Jeff Gore, MSU-ES/MAFES  
 Larry Oldham, MSU-ES

### Cotton

Will Maples, MSU-ES, Co-Chair  
 Brian Mills, MSU-ES, Co-Chair  
 Brian Pieralisi, MSU-ES  
 Jason Bond, MSU-ES/MAFES  
 Angus Catchot, MAFES  
 Don Cook, MAFES  
 Whitney Crow, MSU-ES  
 Jeff Gore, MSU-ES/MAFES  
 Larry Oldham, MSU-ES

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 Brian Mills, MSU-ES, Co-Chair  
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 Alan Henn, MSU-ES  
 Brendan Zurweller, MSU-ES

### Rice

Will Maples, MSU-ES, Co-Chair  
 Brian Mills, MSU-ES, Co-Chair  
 Tom Allen, MSU-ES/MAFES  
 Jason Bond, MSU-ES/MAFES  
 Drew Gholson, MSU-ES/MAFES  
 Jeff Gore, MSU-ES/MAFES

### Soybeans

Will Maples, MSU-ES, Co-Chair  
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 Trent Irby, MSU-ES  
 Tom Allen, MSU-ES/MAFES  
 Jason Bond, MSU-ES/MAFES  
 Angus Catchot, MAFES  
 Don Cook, MAFES  
 Whitney Crow, MSU-ES  
 Drew Gholson, MSU-ES/MAFES  
 Jeff Gore, MSU-ES/MAFES

### Vegetables

Elizabeth Canales, MSU-ES, Chairman  
 Blake Layton, MSU-ES  
 Casey Barickman, MSU-MAFES/ES  
 Stephen Meyers, MSU-ES

### Fruit & Nut

Alba Collart, MSU-ES, Chairman  
 Eric Stafne, MSU-ES  
 Frank Matta, MAFES

## Supporting Committees

### Equipment

Evan Gregory, MSU-ES  
 W. Gail Gillis, MSU-ES

### Prices

Evan Gregory, MSU-ES  
 W. Gail Gillis, MSU-ES

### Documentation and Data Processing

Evan Gregory, MSU-ES  
 W. Gail Gillis, MSU-ES

### Publication Review

Evan Gregory, MSU-ES  
 W. Gail Gillis, MSU-ES

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# 2023 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 2022. (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 2022 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, Enlist E3, stale seedbed, 16R30"  
Non-irrigated, Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	4.0000	30.40	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
Sodium Chlorate 5L	gal	8.61	0.6000	5.17	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	64.0000	21.76	_____
2,4-D Amine 4	pt	3.33	2.0000	6.66	_____
Select Max	pt	13.86	1.0000	13.86	_____
Valor SX	oz	3.20	2.0000	6.40	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Enlist Duo	pt	8.60	3.5000	30.10	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
Zidua WG	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.07	50.0000	53.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.2209	3.66	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0235	0.38	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0117	0.10	_____
UNALLOCATED LABOR					
	hour	16.52	0.2966	4.90	_____
DIESEL FUEL					
Tractors	gal	4.48	3.4114	15.29	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.2993	1.34	_____
REPAIR & MAINTENANCE					
Implements	acre	5.98	1.0000	5.98	_____
Tractors	acre	2.09	1.0000	2.09	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.40	1.0000	0.40	_____
INTEREST ON OP. CAP.	acre	18.26	1.0000	18.26	_____
TOTAL DIRECT EXPENSES				487.91	_____
FIXED EXPENSES					
Implements	acre	14.68	1.0000	14.68	_____
Tractors	acre	14.84	1.0000	14.84	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	2.92	1.0000	2.92	_____
TOTAL FIXED EXPENSES				50.70	_____
TOTAL SPECIFIED EXPENSES				538.61	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
Non-irrigated, Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	42.0000	573.72	_____
				-----	
TOTAL INCOME				573.72	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	30.40	1.0000	30.40	_____
HARVEST AIDS	acre	11.09	1.0000	11.09	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	144.63	1.0000	144.63	_____
INSECTICIDES	acre	12.97	1.0000	12.97	_____
SEED/PLANTS	acre	53.50	1.0000	53.50	_____
ADJUVANTS	acre	3.30	1.0000	3.30	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0625	0.56	_____
OPERATOR LABOR	hour	16.54	0.3295	5.45	_____
UNALLOCATED LABOR	hour	16.52	0.2966	4.90	_____
DIESEL FUEL	gal	4.48	5.1352	23.01	_____
REPAIR & MAINTENANCE	acre	12.62	1.0000	12.62	_____
INTEREST ON OP. CAP.	acre	18.26	1.0000	18.26	_____
				-----	
TOTAL DIRECT EXPENSES				487.91	_____
RETURNS ABOVE DIRECT EXPENSES				85.81	_____
TOTAL FIXED EXPENSES				50.70	_____
				-----	
TOTAL SPECIFIED EXPENSES				538.61	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				35.11	_____

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
Non-irrigated, Delta Area, Mississippi, 2023

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 300	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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05	
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04	
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	16R-30	MFWD 300	0.050	1.00	Apr		0.05	0.05	0.10	0.04	
Soybean Enlist E3	lb					50.0000					
CruiserMaxx Vibrance	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					
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01	
Enlist Duo	pt					3.5000					
Dual Magnum	pt					1.0000					
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01	
Glyphosate 3lbs a.e	oz					32.0000					
Zidua WG	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 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01	
TOTALS								0.32	0.30	0.39	0.29

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
Non-irrigated, Delta Area, Mississippi, 2023

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						0.21	3.54		3.54
Subsoiler	3 shank		2.83	0.46	1.29			0.29	4.87	2.96	7.83
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus (46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	7.45	16.12
Field Cultivate Fld	32'		3.23	1.13	1.46			0.37	6.19	6.44	12.63
App by Air ( 5 gal)	appl	7.60						0.32	7.92		7.92
Glyphosate 3lbs a.e	oz	10.88						0.46	11.34		11.34
2,4-D Amine 4	pt	6.66						0.28	6.94		6.94
Select Max	pt	13.86						0.59	14.45		14.45
Valor SX	oz	6.40						0.27	6.67		6.67
Surfactant	pt	1.32						0.06	1.38		1.38
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94	17.79
Soybean Enlist E3	lb	53.50						1.71	55.21		55.21
CruiserMaxx Vibrance	oz	12.21						0.39	12.60		12.60
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	23.50						0.75	24.25		24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33		18.33
Surfactant	pt	1.32						0.04	1.36		1.36
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Enlist Duo	pt	30.10						0.80	30.90		30.90
Dual Magnum	pt	11.45						0.31	11.76		11.76
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
Zidua WG	oz	13.14						0.35	13.49		13.49
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Acephate 90SP	lb	4.97						0.05	5.02		5.02
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Gramoxone SL	oz	5.92						0.06	5.98		5.98
Sodium Chlorate 5L	gal	5.17						0.06	5.23		5.23
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97	34.26
Haul Soybeans	bu	11.34						0.06	11.40		11.40
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02	4.67
TOTALS		423.11	23.01	12.62	10.91	0.00	18.26	487.91	50.70	538.61	

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
Non-irrigated, Delta Area, Mississippi, 2023

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	573.72
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	0.00	22.80	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.09	0.00
FERTILIZERS	105.48	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	12.21	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	37.80	0.00	41.26	65.57	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	12.97	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	53.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.34
CUSTOM LIME	19.31	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	4.68	0.00	0.00	0.00	0.00	0.00	2.06	0.82	0.00	0.00	0.00	3.35
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	10.31	0.00	0.00	0.00	0.00	0.00	3.51	1.34	0.00	0.00	0.00	7.85
REPAIR & MAINTENANCE	3.56	0.00	0.00	0.00	0.00	0.00	3.01	0.40	0.00	0.00	0.00	5.65
INTEREST ON OP. CAP.	9.86	0.00	0.00	0.00	1.98	0.00	3.78	1.98	0.00	0.00	0.51	0.15
TOTAL DIRECT EXPENSES	164.03	0.00	0.00	0.00	48.70	0.00	122.20	76.61	0.00	0.00	48.03	28.34
NET INCOME	-164.03	0.00	0.00	0.00	-48.70	0.00	-122.20	-76.61	0.00	0.00	-48.03	545.38
NET INCOME TO DATE	-164.03	-164.03	-164.03	-164.03	-212.73	-212.73	-334.93	-411.54	-411.54	-411.54	-459.57	85.81

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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, Enlist E3, stale seedbed, 16R30"  
 Non-irrigated, Delta Area, Mississippi, 2023

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-267 -317	-252 -303	-238 -289	-224 -274	-209 -260	-195 -246	-181 -231	-166 -217	-152 -203	-137 -188	-123 -174
60	25.20	bu	-225 -275	-207 -258	-190 -241	-173 -224	-156 -207	-139 -189	-121 -172	-104 -155	-87 -138	-70 -120	-53 -103
70	29.40	bu	-183 -233	-163 -213	-143 -193	-123 -173	-102 -153	-82 -133	-62 -113	-42 -93	-22 -73	-2 -53	17 -33
80	33.60	bu	-141 -192	-118 -169	-95 -146	-72 -123	-49 -100	-26 -77	-3 -54	19 -31	42 -8	65 14	88 37
90	37.80	bu	-99 -150	-73 -124	-47 -98	-22 -72	3 -46	29 -21	55 4	81 30	107 56	132 82	158 107
100	42.00	bu	-57 -108	-28 -79	-0 -50	28 -22	57 6	85 35	114 63	143 92	171 121	200 149	229 178
110	46.20	bu	-15 -66	15 -34	47 -3	78 28	110 59	142 91	173 122	205 154	236 186	268 217	299 249
120	50.40	bu	26 -24	60 9	95 44	129 78	163 113	198 147	232 181	267 216	301 250	335 285	370 319
130	54.60	bu	68 17	105 54	142 91	179 129	217 166	254 203	291 241	329 278	366 315	403 352	440 390
140	58.80	bu	109 59	150 99	190 139	230 179	270 219	310 260	350 300	391 340	431 380	471 420	511 460
150	63.00	bu	151 101	194 144	237 187	280 230	323 273	366 316	409 359	453 402	496 445	539 488	582 531

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 2022 input prices.

Table 2.A Estimated costs per acre  
Soybeans, full-season, Enlist E3, stale seedbed, 16R30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	5.0000	38.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
Sodium Chlorate 5L	gal	8.61	0.6000	5.17	_____
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
Miravis Top	oz	5.31	13.7000	72.75	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	64.0000	21.76	_____
2,4-D Amine 4	pt	3.33	2.0000	6.66	_____
Select Max	pt	13.86	1.0000	13.86	_____
Valor SX	oz	3.20	2.0000	6.40	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Enlist Duo	pt	8.60	3.5000	30.10	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
Zidua WG	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.24	33.0000	7.92	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.07	50.0000	53.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.1000	3.63	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.3601	5.97	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0235	0.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3000	2.73	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0117	0.10	_____
UNALLOCATED LABOR	hour	16.51	0.3512	5.80	_____
DIESEL FUEL					
Tractors	gal	4.48	5.0744	22.75	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.2993	1.34	_____
Roll-Out Pipe Irr.	gal	4.48	7.3316	32.85	_____
REPAIR & MAINTENANCE					
Implements	acre	6.83	1.0000	6.83	_____
Tractors	acre	3.16	1.0000	3.16	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.40	1.0000	0.40	_____
Roll-Out Pipe Irr.	acre	7.16	1.0000	7.16	_____
INTEREST ON OP. CAP.	acre	21.26	1.0000	21.26	_____
TOTAL DIRECT EXPENSES				640.27	_____
FIXED EXPENSES					
Implements	acre	18.30	1.0000	18.30	_____
Tractors	acre	22.39	1.0000	22.39	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	2.92	1.0000	2.92	_____
Roll-Out Pipe Irr.	acre	65.01	1.0000	65.01	_____
TOTAL FIXED EXPENSES				126.88	_____
TOTAL SPECIFIED EXPENSES				767.15	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	60.0000	819.60	_____
				-----	
TOTAL INCOME				819.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	38.00	1.0000	38.00	_____
HARVEST AIDS	acre	11.09	1.0000	11.09	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	84.96	1.0000	84.96	_____
HERBICIDES	acre	144.63	1.0000	144.63	_____
INSECTICIDES	acre	12.97	1.0000	12.97	_____
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	_____
SEED/PLANTS	acre	53.50	1.0000	53.50	_____
ADJUVANTS	acre	3.63	1.0000	3.63	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0625	0.56	_____
IRRIGATE LABOR	hour	9.06	0.3625	3.30	_____
OPERATOR LABOR	hour	16.54	0.4687	7.76	_____
UNALLOCATED LABOR	hour	16.51	0.3512	5.80	_____
DIESEL FUEL	gal	4.48	14.1298	63.32	_____
REPAIR & MAINTENANCE	acre	21.70	1.0000	21.70	_____
INTEREST ON OP. CAP.	acre	21.26	1.0000	21.26	_____
				-----	
TOTAL DIRECT EXPENSES				640.27	_____
RETURNS ABOVE DIRECT EXPENSES				179.33	_____
TOTAL FIXED EXPENSES				126.88	_____
				-----	
TOTAL SPECIFIED EXPENSES				767.15	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				52.45	_____

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

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 300	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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Bed/Lister-Roll-Fo	16R-30	MFWD 300	0.060	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	16R-30	MFWD 300	0.050	1.00	Apr		0.05	0.05	0.10	0.04
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	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				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Zidua WG	oz					1.5000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	oz					13.7000				
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 300	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							0.46	0.44	0.89	0.35

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

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						0.21	3.54		3.54
Subsoiler	3 shank		2.83	0.46	1.29			0.29	4.87	2.96	7.83
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus(46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	7.45	16.12
Field Cultivate Fld	32'		3.23	1.13	1.46			0.37	6.19	6.44	12.63
Bed/Lister-Roll-Fo	16R-30		4.20	1.18	1.90			0.47	7.75	5.87	13.62
App by Air ( 5 gal)	appl	7.60						0.32	7.92		7.92
Glyphosate 3lbs a.e	oz	10.88						0.46	11.34		11.34
2,4-D Amine 4	pt	6.66						0.28	6.94		6.94
Select Max	pt	13.86						0.59	14.45		14.45
Valor SX	oz	6.40						0.27	6.67		6.67
Surfactant	pt	1.32						0.06	1.38		1.38
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94	17.79
Soybean Enlist E3	lb	53.50						1.71	55.21		55.21
CruiserMaxx Vibrance	oz	12.21						0.39	12.60		12.60
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	23.50						0.75	24.25		24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33		18.33
Surfactant	pt	1.32						0.04	1.36		1.36
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Enlist Duo	pt	30.10						0.80	30.90		30.90
Dual Magnum	pt	11.45						0.31	11.76		11.76
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
Zidua WG	oz	13.14						0.35	13.49		13.49
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Miravis Top	oz	72.75						1.16	73.91		73.91
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Acephate 90SP	lb	4.97						0.05	5.02		5.02
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Gramoxone SL	oz	5.92						0.06	5.98		5.98
Sodium Chlorate 5L	gal	5.17						0.06	5.23		5.23
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97	34.26
Haul Soybeans	bu	16.20						0.09	16.29		16.29
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02	4.67
Roll-Out Pipe Irr.	acre	7.92	36.11	7.90	4.61			1.21	57.75	70.31	128.06
TOTALS		516.57	63.32	21.70	17.42	0.00	21.26	640.27	126.88	767.15	

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

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	819.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	7.60	22.80	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.09	0.00
FERTILIZERS	105.48	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	12.21	0.00	0.00	72.75	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	37.80	0.00	41.26	65.57	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	12.97	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	53.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.33	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.20
CUSTOM LIME	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	7.21	0.00	0.00	0.00	0.00	0.00	2.06	1.05	2.87	0.23	0.00	4.00
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	16.17	0.00	0.00	0.00	0.00	0.00	3.51	1.34	22.76	10.95	0.00	8.59
REPAIR & MAINTENANCE	5.10	0.00	0.00	0.00	0.00	0.00	3.01	0.40	5.96	1.40	0.00	5.83
INTEREST ON OP. CAP.	10.50	0.00	0.00	0.00	1.98	0.00	3.78	1.99	0.82	1.49	0.51	0.19
TOTAL DIRECT EXPENSES	174.60	0.00	0.00	0.00	48.70	0.00	122.20	76.85	40.33	94.75	48.03	34.81
NET INCOME	-174.60	0.00	0.00	0.00	-48.70	0.00	-122.20	-76.85	-40.33	-94.75	-48.03	784.79
NET INCOME TO DATE	-174.60	-174.60	-174.60	-174.60	-223.30	-223.30	-345.50	-422.35	-462.68	-557.43	-605.46	179.33

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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, Enlist E3, stale seedbed, 16R30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-324 -451	-304 -431	-283 -410	-263 -390	-242 -369	-222 -349	-201 -328	-181 -308	-160 -287	-140 -267	-119 -246
60	36.00	bu	-264 -391	-240 -367	-215 -342	-191 -318	-166 -293	-141 -268	-117 -244	-92 -219	-68 -195	-43 -170	-19 -145
70	42.00	bu	-205 -331	-176 -303	-147 -274	-119 -245	-90 -217	-61 -188	-32 -159	-4 -131	24 -102	53 -73	81 -45
80	48.00	bu	-145 -272	-112 -239	-79 -206	-46 -173	-14 -140	18 -108	51 -75	84 -42	117 -9	149 22	182 55
90	54.00	bu	-85 -212	-48 -175	-11 -138	25 -101	62 -64	98 -27	135 9	172 45	209 82	246 119	283 156
100	60.00	bu	-25 -152	15 -111	56 -70	97 -29	138 11	179 52	220 93	261 134	302 175	343 216	384 257
110	66.00	bu	34 -92	79 -47	124 -2	169 42	214 87	259 132	304 177	349 222	394 268	439 313	485 358
120	72.00	bu	94 -32	143 16	192 65	241 114	290 163	339 213	389 262	438 311	487 360	536 409	585 458
130	78.00	bu	153 27	207 80	260 133	313 186	367 240	420 293	473 346	526 399	580 453	633 506	686 559
140	84.00	bu	213 86	271 144	328 201	385 259	443 316	500 373	558 431	615 488	672 545	730 603	787 660
150	90.00	bu	273 146	335 208	396 269	458 331	519 392	580 454	642 515	703 577	765 638	826 699	888 761

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 2022 input prices.

Table 3.A Estimated costs per acre  
Soybeans, full-season, Enlist E3, stale seedbed, 16R30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	4.0000	30.40	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
Sodium Chlorate 5L	gal	8.61	0.6000	5.17	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
Miravis Top	oz	5.31	13.7000	72.75	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	64.0000	21.76	_____
Select Max	pt	13.86	1.0000	13.86	_____
Valor SX	oz	3.20	2.0000	6.40	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Enlist Duo	pt	8.60	3.5000	30.10	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.07	50.0000	53.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.1000	3.63	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.3362	5.57	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0352	0.57	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0176	0.15	_____
UNALLOCATED LABOR	hour	16.50	0.2284	3.77	_____
DIESEL FUEL					
Tractors	gal	4.48	3.8348	17.16	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.4490	2.01	_____
Contour Flood Irr.	gal	4.48	10.9974	49.26	_____
REPAIR & MAINTENANCE					
Implements	acre	5.50	1.0000	5.50	_____
Tractors	acre	2.44	1.0000	2.44	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.60	1.0000	0.60	_____
Contour Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.	acre	20.75	1.0000	20.75	_____
TOTAL DIRECT EXPENSES				618.92	_____
FIXED EXPENSES					
Implements	acre	12.62	1.0000	12.62	_____
Tractors	acre	17.27	1.0000	17.27	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	4.38	1.0000	4.38	_____
Contour Flood Irr.	acre	51.51	1.0000	51.51	_____
TOTAL FIXED EXPENSES				104.04	_____
TOTAL SPECIFIED EXPENSES				722.96	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	53.0000	723.98	_____
				-----	
TOTAL INCOME				723.98	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	30.40	1.0000	30.40	_____
HARVEST AIDS	acre	11.09	1.0000	11.09	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	84.96	1.0000	84.96	_____
HERBICIDES	acre	124.83	1.0000	124.83	_____
INSECTICIDES	acre	12.97	1.0000	12.97	_____
SEED/PLANTS	acre	53.50	1.0000	53.50	_____
ADJUVANTS	acre	3.63	1.0000	3.63	_____
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	19.31	1.0000	19.31	_____
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	0.0683	0.61	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	16.54	0.4566	7.55	_____
UNALLOCATED LABOR	hour	16.50	0.2284	3.77	_____
DIESEL FUEL	gal	4.48	16.7057	74.81	_____
REPAIR & MAINTENANCE	acre	27.00	1.0000	27.00	_____
INTEREST ON OP. CAP.	acre	20.75	1.0000	20.75	_____
				-----	
TOTAL DIRECT EXPENSES				618.92	_____
RETURNS ABOVE DIRECT EXPENSES				105.06	_____
TOTAL FIXED EXPENSES				104.04	_____
				-----	
TOTAL SPECIFIED EXPENSES				722.96	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				1.02	_____

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

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	32'	MFWD 300	0.061	1.00	Nov		0.06	0.06	0.06	0.05
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				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Feb			0.01	0.01	0.01
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	16R-30	MFWD 300	0.050	1.00	May		0.05	0.05	0.10	0.04
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jun			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	oz					13.7000				
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 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
Contour Flood Irr.	acre				Jul	1.0000	0.20	0.20	0.51	
<b>TOTALS</b>							<b>0.45</b>	<b>0.42</b>	<b>0.83</b>	<b>0.22</b>

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

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						0.21	3.54		3.54
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	7.45	16.12
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus(46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.06	1.34	1.46	2.80
Glyphosate 3lbs a.e	oz	10.88						0.52	11.40		11.40
Select Max	pt	13.86						0.67	14.53		14.53
Surfactant	pt	1.32						0.06	1.38		1.38
Valor SX	oz	6.40						0.31	6.71		6.71
Soybeans Consultant	acre	6.50						0.21	6.71		6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94	17.79
Soybean Enlist E3	lb	53.50						1.71	55.21		55.21
CruiserMaxx Vibrance	oz	12.21						0.39	12.60		12.60
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	23.50						0.75	24.25		24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33		18.33
Surfactant	pt	1.32						0.04	1.36		1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.04	1.32	1.46	2.78
Enlist Duo	pt	30.10						0.96	31.06		31.06
Dual Magnum	pt	11.45						0.37	11.82		11.82
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
App by Air ( 5 gal)	appl	7.60						0.16	7.76		7.76
Miravis Top	oz	72.75						1.55	74.30		74.30
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Acephate 90SP	lb	4.97						0.08	5.05		5.05
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Gramoxone SL	oz	5.92						0.06	5.98		5.98
Sodium Chlorate 5L	gal	5.17						0.06	5.23		5.23
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97	34.26
Haul Soybeans	bu	14.31						0.08	14.39		14.39
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02	4.67
Contour Flood Irr.	acre	2.25	57.19	15.77	6.18			1.78	83.17	61.28	144.45
<b>TOTALS</b>		<b>481.61</b>	<b>74.81</b>	<b>27.00</b>	<b>14.75</b>	<b>0.00</b>	<b>20.75</b>	<b>618.92</b>	<b>104.04</b>	<b>722.96</b>	

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, stale seedbed, 16R30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

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	723.98
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	7.60	15.20	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.09	0.00
FERTILIZERS	105.48	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	12.21	0.00	72.75	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	31.14	0.00	0.00	82.81	10.88	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	4.97	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	53.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	0.00	0.00	1.32	0.00	0.33	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.31
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
CUSTOM LIME	19.31	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	1.93	0.00	0.00	0.41	0.00	0.00	2.92	2.43	1.75	1.75	0.21	3.35
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	4.25	0.00	0.00	0.67	0.00	0.00	4.18	19.99	18.69	18.69	0.49	7.85
REPAIR & MAINTENANCE	1.97	0.00	0.00	0.20	0.00	0.00	3.21	9.44	3.22	3.22	0.09	5.65
INTEREST ON OP. CAP.	9.20	0.00	0.00	1.62	0.00	0.00	5.37	1.20	2.22	0.58	0.39	0.17
TOTAL DIRECT EXPENSES	152.97	0.00	0.00	35.36	0.00	0.00	173.57	46.19	106.56	36.81	36.13	31.33
NET INCOME	-152.97	0.00	0.00	-35.36	0.00	0.00	-173.57	-46.19	-106.56	-36.81	-36.13	692.65
NET INCOME TO DATE	-152.97	-152.97	-152.97	-188.33	-188.33	-188.33	-361.90	-408.09	-514.65	-551.46	-587.59	105.06

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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, Enlist E3, stale seedbed, 16R30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-340 -444	-322 -426	-304 -408	-285 -389	-267 -371	-249 -353	-231 -335	-213 -317	-195 -299	-177 -281	-159 -263
60	31.80	bu	-287 -391	-265 -369	-243 -347	-222 -326	-200 -304	-178 -282	-157 -261	-135 -239	-113 -217	-91 -195	-70 -174
70	37.10	bu	-234 -338	-209 -313	-183 -287	-158 -262	-133 -237	-107 -211	-82 -186	-57 -161	-31 -135	-6 -110	18 -85
80	42.40	bu	-181 -285	-152 -256	-123 -227	-94 -198	-65 -169	-36 -140	-7 -111	21 -82	50 -54	78 -25	107 3
90	47.70	bu	-128 -232	-96 -200	-63 -167	-31 -135	1 -102	34 -69	66 -37	99 -4	131 27	164 60	196 92
100	53.00	bu	-75 -179	-39 -143	-3 -107	32 -71	68 -35	105 1	141 37	177 73	213 109	249 145	286 182
110	58.30	bu	-23 -127	16 -87	56 -47	96 -7	136 32	176 71	215 111	255 151	295 191	335 231	375 271
120	63.60	bu	29 -74	73 -30	116 12	160 56	203 99	246 142	290 186	333 229	377 273	420 316	464 360
130	68.90	bu	82 -21	129 25	176 72	223 119	270 166	317 213	364 260	412 308	459 355	506 402	553 449
140	74.20	bu	135 31	186 82	236 132	287 183	338 234	388 284	439 335	490 386	540 436	591 487	642 538
150	79.50	bu	188 84	242 138	296 192	351 247	405 301	459 355	514 410	568 464	622 518	677 573	731 627

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 2022 input prices.

Table 4.A Estimated costs per acre  
Soybeans, double crop after wheat, Enlist E3, 16R30"  
1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	4.0000	30.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
Miravis Top	oz	5.31	13.7000	72.75	_____
HERBICIDES					
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Enlist Duo	pt	8.60	3.5000	30.10	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
Prevathon	oz	1.16	14.0000	16.24	_____
Bifenthrin	oz	1.13	6.4000	7.23	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.07	50.0000	53.50	_____
ADJUVANTS					
Surfactant	pt	3.30	0.6000	1.98	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.0720	1.19	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0117	0.19	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0058	0.05	_____
UNALLOCATED LABOR	hour	16.52	0.1452	2.40	_____
DIESEL FUEL					
Tractors	gal	4.48	1.1121	4.98	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.1496	0.67	_____
1/2-mi Pivot Irr.	gal	4.48	16.4057	73.50	_____
REPAIR & MAINTENANCE					
Implements	acre	3.83	1.0000	3.83	_____
Tractors	acre	0.68	1.0000	0.68	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.20	1.0000	0.20	_____
1/2-mi Pivot Irr.	acre	12.00	1.0000	12.00	_____
INTEREST ON OP. CAP.	acre	17.19	1.0000	17.19	_____
TOTAL DIRECT EXPENSES				577.01	_____
FIXED EXPENSES					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	4.84	1.0000	4.84	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	1.46	1.0000	1.46	_____
1/2-mi Pivot Irr.	acre	49.95	1.0000	49.95	_____
TOTAL FIXED EXPENSES				82.34	_____
TOTAL SPECIFIED EXPENSES				659.35	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
 1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	50.0000	683.00	_____
				-----	
TOTAL INCOME				683.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	30.40	1.0000	30.40	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	84.96	1.0000	84.96	_____
HERBICIDES	acre	82.81	1.0000	82.81	_____
INSECTICIDES	acre	36.44	1.0000	36.44	_____
SEED/PLANTS	acre	53.50	1.0000	53.50	_____
ADJUVANTS	acre	1.98	1.0000	1.98	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0566	0.51	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	16.54	0.1689	2.79	_____
UNALLOCATED LABOR	hour	16.52	0.1452	2.40	_____
DIESEL FUEL	gal	4.48	19.0919	85.53	_____
REPAIR & MAINTENANCE	acre	20.86	1.0000	20.86	_____
INTEREST ON OP. CAP.	acre	17.19	1.0000	17.19	_____
				-----	
TOTAL DIRECT EXPENSES				577.01	_____
RETURNS ABOVE DIRECT EXPENSES				105.99	_____
TOTAL FIXED EXPENSES				82.34	_____
				-----	
TOTAL SPECIFIED EXPENSES				659.35	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				23.65	_____

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

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	16R-30	MFWD 300	0.050	1.00	Jun		0.05	0.05	0.10	0.04
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jul			0.01	0.01	0.01
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
App by Air ( 5 gal)	appl			1.00	Aug	1.0000				
Miravis Top	oz					13.7000				
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	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
Haul Soybeans	bu					50.0000				
Grain Cart Soybean	700 bu	MFWD 300	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							0.16	0.15	0.27	0.14

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
 1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

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						0.21	3.54		3.54
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus(46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Soybeans Consultant	acre	6.50						0.21	6.71		6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.02			0.23	8.77	8.94	17.71
Soybean Enlist E3	lb	53.50						1.43	54.93		54.93
CruiserMaxx Vibrance	oz	12.21						0.33	12.54		12.54
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	23.50						0.63	24.13		24.13
Gramoxone SL 2.0	oz	17.76						0.47	18.23		18.23
Surfactant	pt	1.32						0.04	1.36		1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Enlist Duo	pt	30.10						0.64	30.74		30.74
Dual Magnum	pt	11.45						0.24	11.69		11.69
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Miravis Top	oz	72.75						1.16	73.91		73.91
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Acephate 90SP	lb	4.97						0.08	5.05		5.05
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Prevathon	oz	16.24						0.26	16.50		16.50
Surfactant	pt	0.33						0.01	0.34		0.34
Bifenthrin	oz	7.23						0.12	7.35		7.35
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
Header -Soybean	30' Flex		6.38	5.15	2.62			0.08	14.23	19.97	34.20
Haul Soybeans	bu	13.50						0.07	13.57		13.57
Grain Cart Soybean	700 bu		1.47	0.50	0.65			0.01	2.63	2.02	4.65
1/2-mi Pivot Irr.	acre		73.50	12.00	0.47			1.89	87.86	49.95	137.81
<b>TOTALS</b>			447.26	85.53	20.86	6.17	0.00	17.19	577.01	82.34	659.35

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
 1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

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	683.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.80	7.60	0.00
FERTILIZERS	105.48	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	12.21	0.00	72.75	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.26	41.55	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.44	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.66	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.50
CUSTOM LIME	19.31	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	2.06	0.46	0.04	0.00	3.27
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	25.56	30.07	22.05	0.00	7.85
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.42	1.11	0.68	0.00	5.65
INTEREST ON OP. CAP.	8.68	0.00	0.00	0.00	0.00	0.00	0.22	4.04	1.56	2.36	0.17	0.16
TOTAL DIRECT EXPENSES	144.30	0.00	0.00	0.00	0.00	0.00	7.06	154.92	74.75	149.78	15.77	30.43
NET INCOME	-144.30	0.00	0.00	0.00	0.00	0.00	-7.06	-154.92	-74.75	-149.78	-15.77	652.57
NET INCOME TO DATE	-144.30	-144.30	-144.30	-144.30	-144.30	-144.30	-151.36	-306.28	-381.03	-530.81	-546.58	105.99

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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, Enlist E3, 16R30"  
 1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	-----dollars-----										
50	25.00	bu	-314	-297	-279	-262	-245	-228	-211	-194	-177	-160	-143
			-396	-379	-362	-345	-328	-311	-293	-276	-259	-242	-225
60	30.00	bu	-264	-243	-223	-202	-182	-161	-141	-120	-100	-79	-59
			-346	-326	-305	-285	-264	-244	-223	-203	-182	-162	-141
70	35.00	bu	-214	-190	-166	-142	-118	-94	-70	-47	-23	0	24
			-296	-272	-248	-224	-201	-177	-153	-129	-105	-81	-57
80	40.00	bu	-164	-137	-109	-82	-55	-27	-0	26	54	81	108
			-246	-219	-192	-164	-137	-110	-82	-55	-28	-0	26
90	45.00	bu	-114	-83	-53	-22	8	39	69	100	131	161	192
			-196	-166	-135	-104	-74	-43	-12	18	48	79	110
100	50.00	bu	-64	-30	3	37	71	105	140	174	208	242	276
			-147	-112	-78	-44	-10	23	57	91	126	160	194
110	55.00	bu	-14	22	60	97	135	172	210	248	285	323	360
			-97	-59	-22	15	53	90	128	165	203	240	278
120	60.00	bu	34	75	116	157	198	239	280	321	362	403	444
			-47	-6	34	75	116	157	198	239	280	321	362
130	65.00	bu	84	129	173	218	262	306	351	395	440	484	528
			2	46	91	135	180	224	268	313	357	402	446
140	70.00	bu	134	182	230	278	325	373	421	469	517	565	612
			52	100	147	195	243	291	339	387	434	482	530
150	75.00	bu	184	235	287	338	389	440	491	543	594	645	696
			102	153	204	255	307	358	409	460	512	563	614

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 2022 input prices..

Table 5.A Estimated costs per acre  
Soybeans, full-season, Enlist E3, April planted, 16R30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	2.0000	15.20	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	50.00	0.6600	33.00	_____
Potash (60% K2O)	cwt	46.60	1.0000	46.60	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	64.0000	21.76	_____
2,4-D Amine 4	pt	3.33	2.0000	6.66	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Enlist Duo	pt	8.60	3.5000	30.10	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.07	50.0000	53.50	_____
ADJUVANTS					
Surfactant	pt	3.30	0.6000	1.98	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.1764	2.92	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0352	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.0471	0.43	_____
Self-Propelled	hour	9.06	0.0176	0.15	_____
UNALLOCATED LABOR					
	hour	16.47	0.2671	4.40	_____
DIESEL FUEL					
Tractors	gal	4.48	2.7243	12.21	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.4490	2.01	_____
REPAIR & MAINTENANCE					
Implements	acre	5.55	1.0000	5.55	_____
Tractors	acre	1.67	1.0000	1.67	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.60	1.0000	0.60	_____
INTEREST ON OP. CAP.	acre	14.55	1.0000	14.55	_____
TOTAL DIRECT EXPENSES				389.86	_____
FIXED EXPENSES					
Implements	acre	13.69	1.0000	13.69	_____
Tractors	acre	11.85	1.0000	11.85	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	4.38	1.0000	4.38	_____
TOTAL FIXED EXPENSES				48.18	_____
TOTAL SPECIFIED EXPENSES				438.04	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, April planted, 16R30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	43.0000	587.38	_____
				-----	
TOTAL INCOME				587.38	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	15.20	1.0000	15.20	_____
HARVEST AIDS	acre	5.92	1.0000	5.92	_____
FERTILIZERS	acre	79.60	1.0000	79.60	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	111.23	1.0000	111.23	_____
INSECTICIDES	acre	4.97	1.0000	4.97	_____
SEED/PLANTS	acre	53.50	1.0000	53.50	_____
ADJUVANTS	acre	1.98	1.0000	1.98	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0647	0.58	_____
OPERATOR LABOR	hour	16.54	0.2968	4.90	_____
UNALLOCATED LABOR	hour	16.47	0.2671	4.40	_____
DIESEL FUEL	gal	4.48	4.5978	20.60	_____
REPAIR & MAINTENANCE	acre	11.97	1.0000	11.97	_____
INTEREST ON OP. CAP.	acre	14.55	1.0000	14.55	_____
				-----	
TOTAL DIRECT EXPENSES				389.86	_____
RETURNS ABOVE DIRECT EXPENSES				197.52	_____
TOTAL FIXED EXPENSES				48.18	_____
				-----	
TOTAL SPECIFIED EXPENSES				438.04	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				149.34	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, April planted, 16R30"  
Non-Delta Area, Mississippi, 2023

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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04
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	16R-30	MFWD 300	0.047	1.00	Apr		0.04	0.04	0.09	0.04
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Aug			0.01	0.01	0.01
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
Haul Soybeans	bu					43.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
<b>TOTALS</b>							<b>0.29</b>	<b>0.26</b>	<b>0.36</b>	<b>0.26</b>

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, April planted, 16R30"  
Non-Delta Area, Mississippi, 2023

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						0.21	3.54	3.54
Lime (Spread)	ton	19.31						1.24	20.55	20.55
Custom Apply Fert	acre	7.50						0.48	7.98	7.98
Phosphorus(46% P2O5)	cwt	33.00						2.11	35.11	35.11
Potash (60% K2O)	cwt	46.60						2.98	49.58	49.58
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	16.12
Field Cultivate Fld	32'		3.23	1.13	1.46			0.37	6.19	12.63
App by Air ( 5 gal)	appl	7.60						0.28	7.88	7.88
Glyphosate 3lbs a.e	oz	10.88						0.41	11.29	11.29
2,4-D Amine 4	pt	6.66						0.25	6.91	6.91
Plant - Folding	16R-30		3.26	2.62	1.91			0.25	8.04	15.96
Soybean Enlist E3	lb	53.50						1.71	55.21	55.21
CruiserMaxx Vibrance	oz	12.21						0.39	12.60	12.60
Boundary	pt	23.50						0.75	24.25	24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33	18.33
Surfactant	pt	1.32						0.04	1.36	1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	2.77
Enlist Duo	pt	30.10						0.80	30.90	30.90
Dual Magnum	pt	11.45						0.31	11.76	11.76
Soybeans Consultant	acre	6.50						0.17	6.67	6.67
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17	11.17
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.01	1.29	2.75
Acephate 90SP	lb	4.97						0.05	5.02	5.02
App by Air ( 5 gal)	appl	7.60						0.08	7.68	7.68
Gramoxone SL	oz	5.92						0.06	5.98	5.98
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	34.26
Haul Soybeans	bu	11.61						0.06	11.67	11.67
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	4.67
TOTALS		332.86	20.60	11.97	9.88	0.00	14.55	389.86	48.18	438.04

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, April planted, 16R30"  
Non-Delta Area, Mississippi, 2023

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	587.38
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	7.60	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.92	0.00
FERTILIZERS	79.60	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	12.21	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	17.54	41.26	52.43	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	4.97	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	53.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.61
CUSTOM LIME	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.39	0.00	0.00	0.00	0.00	0.00	1.91	0.82	0.00	0.00	0.41	3.35
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	7.48	0.00	0.00	0.00	0.00	0.00	3.26	1.34	0.00	0.00	0.67	7.85
REPAIR & MAINTENANCE	3.10	0.00	0.00	0.00	0.00	0.00	2.62	0.40	0.00	0.00	0.20	5.65
INTEREST ON OP. CAP.	7.91	0.00	0.00	0.00	0.00	0.94	3.71	1.63	0.00	0.00	0.21	0.15
TOTAL DIRECT EXPENSES	131.62	0.00	0.00	0.00	0.00	26.08	119.79	63.12	0.00	0.00	20.64	28.61
NET INCOME	-131.62	0.00	0.00	0.00	0.00	-26.08	-119.79	-63.12	0.00	0.00	-20.64	558.77
NET INCOME TO DATE	-131.62	-131.62	-131.62	-131.62	-131.62	-157.70	-277.49	-340.61	-340.61	-340.61	-361.25	197.52

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield 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, Enlist E3, April planted, 16R30"  
 Non-Delta Area, Mississippi, 2023

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-163	-149	-134	-119	-105	-90	-75	-60	-46	-31	-16
			-211	-197	-182	-167	-153	-138	-123	-109	-94	-79	-65
60	25.80	bu	-120	-103	-85	-68	-50	-32	-15	2	20	37	55
			-169	-151	-133	-116	-98	-80	-63	-45	-28	-10	7
70	30.10	bu	-77	-57	-36	-16	4	24	45	65	86	107	127
			-126	-105	-85	-64	-43	-23	-2	17	38	58	79
80	34.40	bu	-35	-11	11	35	58	82	105	129	152	176	199
			-83	-59	-36	-12	10	34	57	81	104	128	151
90	38.70	bu	7	34	60	87	113	139	166	192	219	245	272
			-40	-13	12	38	65	91	118	144	171	197	223
100	43.00	bu	50	80	109	138	168	197	226	256	285	314	344
			2	31	61	90	119	149	178	208	237	266	296
110	47.30	bu	93	125	158	190	222	255	287	319	352	384	416
			45	77	109	142	174	206	239	271	303	336	368
120	51.60	bu	136	171	206	242	277	312	347	383	418	453	488
			88	123	158	193	229	264	299	334	370	405	440
130	55.90	bu	179	217	255	293	332	370	408	446	484	522	561
			131	169	207	245	283	322	360	398	436	474	512
140	60.20	bu	222	263	304	345	386	427	468	510	551	592	633
			174	215	256	297	338	379	420	461	502	544	585
150	64.50	bu	265	309	353	397	441	485	529	573	617	661	705
			216	260	305	349	393	437	481	525	569	613	657

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 2022 input prices.

Table 6.A Estimated costs per acre  
Soybeans, full-season, Enlist E3, May planted, 16R30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	1.0000	7.60	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.6600	33.00	_____
Potash (60% K2O)	cwt	46.60	1.0000	46.60	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	64.0000	21.76	_____
Select Max	pt	13.86	1.0000	13.86	_____
Fierce	oz	7.75	3.5000	27.13	_____
Gramoxone SL 2.0	oz	0.37	96.0000	35.52	_____
Boundary	pt	11.75	2.0000	23.50	_____
Enlist Duo	pt	8.60	3.5000	30.10	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Dimilin 2L	oz	1.63	1.0000	1.63	_____
Bifenthrin	oz	1.13	1.0500	1.19	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.07	50.0000	53.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.4500	4.79	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.2407	3.98	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0587	0.96	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0293	0.26	_____
UNALLOCATED LABOR					
	hour	16.49	0.3461	5.71	_____
DIESEL FUEL					
Tractors	gal	4.48	3.7171	16.66	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.7484	3.36	_____
REPAIR & MAINTENANCE					
Implements	acre	6.51	1.0000	6.51	_____
Tractors	acre	2.28	1.0000	2.28	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	1.00	1.0000	1.00	_____
INTEREST ON OP. CAP.	acre	12.56	1.0000	12.56	_____
TOTAL DIRECT EXPENSES				442.88	_____
FIXED EXPENSES					
Implements	acre	16.27	1.0000	16.27	_____
Tractors	acre	16.16	1.0000	16.16	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	7.30	1.0000	7.30	_____
TOTAL FIXED EXPENSES				57.99	_____
TOTAL SPECIFIED EXPENSES				500.87	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, May planted, 16R30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	40.0000	546.40	_____
				-----	
TOTAL INCOME				546.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.60	1.0000	7.60	_____
HARVEST AIDS	acre	5.92	1.0000	5.92	_____
FERTILIZERS	acre	79.60	1.0000	79.60	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	163.32	1.0000	163.32	_____
INSECTICIDES	acre	2.82	1.0000	2.82	_____
SEED/PLANTS	acre	53.50	1.0000	53.50	_____
ADJUVANTS	acre	4.79	1.0000	4.79	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0801	0.72	_____
OPERATOR LABOR	hour	16.54	0.3846	6.35	_____
UNALLOCATED LABOR	hour	16.49	0.3461	5.71	_____
DIESEL FUEL	gal	4.48	5.8899	26.40	_____
REPAIR & MAINTENANCE	acre	13.94	1.0000	13.94	_____
INTEREST ON OP. CAP.	acre	12.56	1.0000	12.56	_____
				-----	
TOTAL DIRECT EXPENSES				442.88	_____
RETURNS ABOVE DIRECT EXPENSES				103.52	_____
TOTAL FIXED EXPENSES				57.99	_____
				-----	
TOTAL SPECIFIED EXPENSES				500.87	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				45.53	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, May planted, 16R30"  
Non-Delta Area, Mississippi, 2023

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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Bed/Lister-Roll-Fo	16R-30	MFWD 300	0.060	1.00	Oct		0.06	0.06	0.06	0.05
Sprayer 600-825gal	90' 250hp		0.011	1.00	Feb			0.01	0.01	0.01
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				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Apr			0.01	0.01	0.01
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	16R-30	MFWD 300	0.050	1.00	May		0.05	0.05	0.10	0.04
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jun			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Sprayer 600-825gal	90' 250hp		0.011	0.50	Jul			0.00	0.00	0.00
Dimilin 2L	oz					1.0000				
Surfactant	pt					0.0500				
Sprayer 600-825gal	90' 250hp		0.011	0.50	Aug			0.00	0.00	0.00
Bifenthrin	oz					1.0500				
App by Air ( 5 gal)	appl			1.00	Sep	1.0000				
Gramoxone SL	oz					16.0000				
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					40.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.38	0.32	0.46	0.34

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, May planted, 16R30"  
Non-Delta Area, Mississippi, 2023

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.02	3.35	3.35
Lime (Spread)	ton	19.31						0.10	19.41	19.41
Disk Harrow	32'		4.25	1.97	1.93			0.04	8.19	7.45 15.64
Field Cultivate Fld	32'		3.23	1.13	1.46			0.03	5.85	6.44 12.29
Bed/Lister-Roll-Fo	16R-30		4.20	1.18	1.90			0.04	7.32	5.87 13.19
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.06	1.34	1.46 2.80
Glyphosate 3lbs a.e	oz	10.88						0.52	11.40	11.40
Select Max	pt	13.86						0.67	14.53	14.53
Surfactant	pt	1.32						0.06	1.38	1.38
Custom Apply Fert	acre	7.50						0.28	7.78	7.78
Phosphorus (46% P2O5)	cwt	33.00						1.23	34.23	34.23
Potash (60% K2O)	cwt	46.60						1.74	48.34	48.34
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.05	1.33	1.46 2.79
Fierce	oz	27.13						1.01	28.14	28.14
Gramoxone SL 2.0	oz	17.76						0.66	18.42	18.42
Surfactant	pt	1.32						0.05	1.37	1.37
Soybeans Consultant	acre	6.50						0.21	6.71	6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94 17.79
Soybean Enlist E3	lb	53.50						1.71	55.21	55.21
CruiserMaxx Vibrance	oz	12.21						0.39	12.60	12.60
Boundary	pt	23.50						0.75	24.25	24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33	18.33
Surfactant	pt	1.32						0.04	1.36	1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.04	1.32	1.46 2.78
Enlist Duo	pt	30.10						0.96	31.06	31.06
Dual Magnum	pt	11.45						0.37	11.82	11.82
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46 2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17	11.17
Sprayer 600-825gal	90' 250hp		0.34	0.10	0.22			0.01	0.67	0.73 1.40
Dimilin 2L	oz	1.63						0.03	1.66	1.66
Surfactant	pt	0.17							0.17	0.17
Sprayer 600-825gal	90' 250hp		0.34	0.10	0.22			0.01	0.67	0.73 1.40
Bifenthrin	oz	1.19						0.02	1.21	1.21
App by Air ( 5 gal)	appl	7.60						0.08	7.68	7.68
Gramoxone SL	oz	5.92						0.06	5.98	5.98
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97 34.26
Haul Soybeans	bu	10.80						0.06	10.86	10.86
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02 4.67
TOTALS		377.20	26.40	13.94	12.78	0.00	12.56	442.88	57.99	500.87

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, May planted, 16R30"  
Non-Delta Area, Mississippi, 2023

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	546.40
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.92	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	79.60	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	12.21	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	24.74	0.00	44.89	82.81	10.88	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	1.63	1.19	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	53.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	0.00	1.32	1.32	0.00	0.17	0.00	0.66	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.80
CUSTOM LIME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.31
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	0.41	0.00	0.41	2.47	0.41	0.22	0.22	0.00	8.64
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	0.67	0.00	0.67	4.18	0.67	0.34	0.34	0.00	19.53
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.20	0.00	0.20	3.21	0.20	0.10	0.10	0.00	9.93
INTEREST ON OP. CAP.	0.00	0.00	0.00	1.31	0.00	5.02	5.31	0.32	0.04	0.03	0.15	0.38
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	28.65	0.00	139.61	171.51	12.48	2.50	1.88	14.33	71.92
NET INCOME	0.00	0.00	0.00	-28.65	0.00	-139.61	-171.51	-12.48	-2.50	-1.88	-14.33	474.48
NET INCOME TO DATE	0.00	0.00	0.00	-28.65	-28.65	-168.26	-339.77	-352.25	-354.75	-356.63	-370.96	103.52

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget  
**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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, Enlist E3, May planted, 16R30"  
 Non-Delta Area, Mississippi, 2023

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-232 -290	-218 -276	-205 -263	-191 -249	-177 -235	-164 -222	-150 -208	-136 -194	-123 -181	-109 -167	-95 -153
60	24.00	bu	-192 -250	-176 -234	-159 -217	-143 -201	-127 -185	-110 -168	-94 -152	-77 -135	-61 -119	-45 -103	-28 -86
70	28.00	bu	-152 -210	-133 -191	-114 -172	-95 -153	-76 -134	-57 -115	-38 -96	-18 -76	0 -57	19 -38	38 -19
80	32.00	bu	-112 -170	-91 -149	-69 -127	-47 -105	-25 -83	-3 -61	18 -39	40 -17	61 3	83 25	105 47
90	36.00	bu	-72 -130	-48 -106	-23 -81	0 -57	25 -32	49 -8	74 16	99 41	123 65	148 90	172 114
100	40.00	bu	-33 -91	-5 -63	21 -36	48 -9	76 18	103 45	130 72	158 100	185 127	212 154	240 182
110	44.00	bu	6 -51	36 -21	66 8	96 38	127 69	157 99	187 129	217 159	247 189	277 219	307 249
120	48.00	bu	46 -11	79 21	112 54	145 87	177 119	210 152	243 185	276 218	308 250	341 283	374 316
130	52.00	bu	86 28	122 64	157 99	193 135	228 170	264 206	299 241	335 277	370 312	406 348	441 383
140	56.00	bu	126 68	164 106	202 145	241 183	279 221	317 259	355 297	394 336	432 374	470 412	508 450
150	60.00	bu	166 108	207 149	248 190	289 231	330 272	371 313	412 354	453 395	494 436	535 477	576 518

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 2022 input prices.

Table 7.A Estimated costs per acre  
Soybeans, double crop after wheat, Enlist E3, 16R30"  
Non-irrigated, All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	3.0000	22.80	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Enlist Duo	pt	8.60	3.5000	30.10	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
Prevathon	oz	1.16	14.0000	16.24	_____
Bifenthrin	oz	1.13	6.4000	7.23	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.07	50.0000	53.50	_____
ADJUVANTS					
Surfactant	pt	3.30	0.5000	1.65	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.0720	1.19	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0117	0.19	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0058	0.05	_____
UNALLOCATED LABOR					
	hour	16.52	0.1452	2.40	_____
DIESEL FUEL					
Tractors	gal	4.48	1.1121	4.98	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.1496	0.67	_____
REPAIR & MAINTENANCE					
Implements	acre	3.83	1.0000	3.83	_____
Tractors	acre	0.68	1.0000	0.68	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.20	1.0000	0.20	_____
INTEREST ON OP. CAP.	acre	13.98	1.0000	13.98	_____
TOTAL DIRECT EXPENSES				400.40	_____
FIXED EXPENSES					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	4.84	1.0000	4.84	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	1.46	1.0000	1.46	_____
TOTAL FIXED EXPENSES				32.39	_____
TOTAL SPECIFIED EXPENSES				432.79	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
Non-irrigated, All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	25.0000	341.50	_____
				-----	
TOTAL INCOME				341.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	22.80	1.0000	22.80	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	82.81	1.0000	82.81	_____
INSECTICIDES	acre	36.44	1.0000	36.44	_____
SEED/PLANTS	acre	53.50	1.0000	53.50	_____
ADJUVANTS	acre	1.65	1.0000	1.65	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0566	0.51	_____
OPERATOR LABOR	hour	16.54	0.1689	2.79	_____
UNALLOCATED LABOR	hour	16.52	0.1452	2.40	_____
DIESEL FUEL	gal	4.48	2.6861	12.03	_____
REPAIR & MAINTENANCE	acre	8.86	1.0000	8.86	_____
INTEREST ON OP. CAP.	acre	13.98	1.0000	13.98	_____
				-----	
TOTAL DIRECT EXPENSES				400.40	_____
RETURNS ABOVE DIRECT EXPENSES				-58.90	_____
TOTAL FIXED EXPENSES				32.39	_____
				-----	
TOTAL SPECIFIED EXPENSES				432.79	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-91.29	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
Non-irrigated, All Areas, Mississippi, 2023

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	16R-30	MFWD 300	0.050	1.00	Jun		0.05	0.05	0.10	0.04
Soybean Enlist E3	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jul			0.01	0.01	0.01
Enlist Duo	pt					3.5000				
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	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
Haul Soybeans	bu					25.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
<b>TOTALS</b>							<b>0.16</b>	<b>0.15</b>	<b>0.22</b>	<b>0.14</b>

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
Non-irrigated, All Areas, Mississippi, 2023

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						0.21	3.54		3.54
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus(46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Soybeans Consultant	acre	6.50						0.21	6.71		6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.02			0.23	8.77	8.94	17.71
Soybean Enlist E3	lb	53.50						1.43	54.93		54.93
CruiserMaxx Vibrance	oz	12.21						0.33	12.54		12.54
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	23.50						0.63	24.13		24.13
Gramoxone SL 2.0	oz	17.76						0.47	18.23		18.23
Surfactant	pt	1.32						0.04	1.36		1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Enlist Duo	pt	30.10						0.64	30.74		30.74
Dual Magnum	pt	11.45						0.24	11.69		11.69
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Acephate 90SP	lb	4.97						0.08	5.05		5.05
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Prevathon	oz	16.24						0.26	16.50		16.50
Surfactant	pt	0.33						0.01	0.34		0.34
Bifenthrin	oz	7.23						0.12	7.35		7.35
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
Header -Soybean	30' Flex		6.38	5.15	2.62			0.08	14.23	19.97	34.20
Haul Soybeans	bu	6.75						0.04	6.79		6.79
Grain Cart Soybean	700 bu		1.47	0.50	0.65			0.01	2.63	2.02	4.65
TOTALS		359.83	12.03	8.86	5.70	0.00	13.98	400.40	32.39	432.79	

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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, Enlist E3, 16R30"  
Non-irrigated, All Areas, Mississippi, 2023

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	341.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.20	7.60	0.00
FERTILIZERS	105.48	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	12.21	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.26	41.55	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.44	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.33	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.75
CUSTOM LIME	19.31	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	2.02	0.41	0.00	0.00	3.27
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	3.51	0.67	0.00	0.00	7.85
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.01	0.20	0.00	0.00	5.65
INTEREST ON OP. CAP.	8.68	0.00	0.00	0.00	0.00	0.00	0.21	3.17	0.91	0.71	0.17	0.13
TOTAL DIRECT EXPENSES	144.30	0.00	0.00	0.00	0.00	0.00	6.71	121.55	43.74	44.68	15.77	23.65
NET INCOME	-144.30	0.00	0.00	0.00	0.00	0.00	-6.71	-121.55	-43.74	-44.68	-15.77	317.85
NET INCOME TO DATE	-144.30	-144.30	-144.30	-144.30	-144.30	-144.30	-151.01	-272.56	-316.30	-360.98	-376.75	-58.90

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield 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, Enlist E3, 16R30"  
 Non-irrigated, All Areas, Mississippi, 2023

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-268 -301	-260 -292	-251 -284	-243 -275	-234 -267	-226 -258	-217 -250	-209 -241	-200 -233	-192 -224	-183 -215
60	15.00	bu	-244 -276	-233 -266	-223 -255	-213 -245	-203 -235	-192 -225	-182 -214	-172 -204	-162 -194	-151 -184	-141 -173
70	17.50	bu	-219 -251	-207 -239	-195 -227	-183 -215	-171 -203	-159 -191	-147 -179	-135 -167	-123 -155	-111 -143	-99 -131
80	20.00	bu	-194 -226	-180 -212	-166 -199	-153 -185	-139 -171	-125 -158	-112 -144	-98 -130	-84 -117	-71 -103	-57 -89
90	22.50	bu	-169 -201	-153 -186	-138 -170	-123 -155	-107 -140	-92 -124	-77 -109	-61 -94	-46 -78	-30 -63	-15 -47
100	25.00	bu	-144 -176	-127 -159	-110 -142	-93 -125	-75 -108	-58 -91	-41 -74	-24 -57	-7 -40	9 -22	26 -5
110	27.50	bu	-119 -151	-100 -132	-81 -114	-62 -95	-44 -76	-25 -57	-6 -39	12 -20	30 -1	49 17	68 36
120	30.00	bu	-94 -126	-73 -106	-53 -85	-32 -65	-12 -44	8 -24	28 -3	49 16	69 37	90 57	110 78
130	32.50	bu	-69 -101	-47 -79	-25 -57	-2 -35	19 -13	41 9	63 31	85 53	108 75	130 97	152 120
140	35.00	bu	-44 -76	-20 -53	3 -29	27 -5	51 18	74 42	98 66	122 90	146 114	170 138	194 162
150	37.50	bu	-19 -51	6 -26	31 -0	57 24	82 50	108 76	134 101	159 127	185 152	210 178	236 204

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 2022 input prices.

Table 8.A Estimated costs per acre  
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"  
Non-irrigated, Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	4.0000	30.40	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
Sodium Chlorate 5L	gal	8.61	0.6000	5.17	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	96.0000	32.64	_____
2,4-D Amine 4	pt	3.33	2.0000	6.66	_____
Select Max	pt	13.86	1.0000	13.86	_____
Valor SX	oz	3.20	2.0000	6.40	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
Zidua WG	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.15	50.0000	57.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.2209	3.66	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0235	0.38	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0117	0.10	_____
UNALLOCATED LABOR					
	hour	16.52	0.2966	4.90	_____
DIESEL FUEL					
Tractors	gal	4.48	3.4114	15.29	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.2993	1.34	_____
REPAIR & MAINTENANCE					
Implements	acre	5.98	1.0000	5.98	_____
Tractors	acre	2.09	1.0000	2.09	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.40	1.0000	0.40	_____
INTEREST ON OP. CAP.	acre	18.16	1.0000	18.16	_____
TOTAL DIRECT EXPENSES				483.21	_____
FIXED EXPENSES					
Implements	acre	14.68	1.0000	14.68	_____
Tractors	acre	14.84	1.0000	14.84	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	2.92	1.0000	2.92	_____
TOTAL FIXED EXPENSES				50.70	_____
TOTAL SPECIFIED EXPENSES				533.91	_____

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Non-irrigated, Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	42.0000	573.72	_____
				-----	
TOTAL INCOME				573.72	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	30.40	1.0000	30.40	_____
HARVEST AIDS	acre	11.09	1.0000	11.09	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	136.03	1.0000	136.03	_____
INSECTICIDES	acre	12.97	1.0000	12.97	_____
SEED/PLANTS	acre	57.50	1.0000	57.50	_____
ADJUVANTS	acre	3.30	1.0000	3.30	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.34	1.0000	11.34	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0625	0.56	_____
OPERATOR LABOR	hour	16.54	0.3295	5.45	_____
UNALLOCATED LABOR	hour	16.52	0.2966	4.90	_____
DIESEL FUEL	gal	4.48	5.1352	23.01	_____
REPAIR & MAINTENANCE	acre	12.62	1.0000	12.62	_____
INTEREST ON OP. CAP.	acre	18.16	1.0000	18.16	_____
				-----	
TOTAL DIRECT EXPENSES				483.21	_____
RETURNS ABOVE DIRECT EXPENSES				90.51	_____
TOTAL FIXED EXPENSES				50.70	_____
				-----	
TOTAL SPECIFIED EXPENSES				533.91	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				39.81	_____

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Non-irrigated, Delta Area, Mississippi, 2023

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 300	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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04
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	16R-30	MFWD 300	0.050	1.00	Apr		0.05	0.05	0.10	0.04
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	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				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Zidua WG	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 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
TOTALS							0.32	0.30	0.39	0.29

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Non-irrigated, Delta Area, Mississippi, 2023

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						0.21	3.54		3.54
Subsoiler	3 shank		2.83	0.46	1.29			0.29	4.87	2.96	7.83
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus (46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	7.45	16.12
Field Cultivate Fld	32'		3.23	1.13	1.46			0.37	6.19	6.44	12.63
App by Air ( 5 gal)	appl	7.60						0.32	7.92		7.92
Glyphosate 3lbs a.e	oz	10.88						0.46	11.34		11.34
2,4-D Amine 4	pt	6.66						0.28	6.94		6.94
Select Max	pt	13.86						0.59	14.45		14.45
Valor SX	oz	6.40						0.27	6.67		6.67
Surfactant	pt	1.32						0.06	1.38		1.38
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94	17.79
Soybean Seed RR2X	lb	57.50						1.84	59.34		59.34
CruiserMaxx Vibrance	oz	12.21						0.39	12.60		12.60
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	23.50						0.75	24.25		24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33		18.33
Surfactant	pt	1.32						0.04	1.36		1.36
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
Engenia	oz	10.62						0.28	10.90		10.90
Dual Magnum	pt	11.45						0.31	11.76		11.76
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
Zidua WG	oz	13.14						0.35	13.49		13.49
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Acephate 90SP	lb	4.97						0.05	5.02		5.02
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Gramoxone SL	oz	5.92						0.06	5.98		5.98
Sodium Chlorate 5L	gal	5.17						0.06	5.23		5.23
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97	34.26
Haul Soybeans	bu	11.34						0.06	11.40		11.40
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02	4.67
TOTALS		418.51	23.01	12.62	10.91	0.00	18.16	483.21	50.70	533.91	

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Non-irrigated, Delta Area, Mississippi, 2023

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	573.72
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	0.00	22.80	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.09	0.00
FERTILIZERS	105.48	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	12.21	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	37.80	0.00	41.26	56.97	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	12.97	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	57.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.34
CUSTOM LIME	19.31	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	4.68	0.00	0.00	0.00	0.00	0.00	2.06	0.82	0.00	0.00	0.00	3.35
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	10.31	0.00	0.00	0.00	0.00	0.00	3.51	1.34	0.00	0.00	0.00	7.85
REPAIR & MAINTENANCE	3.56	0.00	0.00	0.00	0.00	0.00	3.01	0.40	0.00	0.00	0.00	5.65
INTEREST ON OP. CAP.	9.86	0.00	0.00	0.00	1.98	0.00	3.91	1.75	0.00	0.00	0.51	0.15
TOTAL DIRECT EXPENSES	164.03	0.00	0.00	0.00	48.70	0.00	126.33	67.78	0.00	0.00	48.03	28.34
NET INCOME	-164.03	0.00	0.00	0.00	-48.70	0.00	-126.33	-67.78	0.00	0.00	-48.03	545.38
NET INCOME TO DATE	-164.03	-164.03	-164.03	-164.03	-212.73	-212.73	-339.06	-406.84	-406.84	-406.84	-454.87	90.51

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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/XF, stale seedbed, 16R 30"  
 Non-irrigated, Delta Area, Mississippi, 2023

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	-----dollars-----										
50	21.00	bu	-262	-248	-233	-219	-204	-190	-176	-161	-147	-133	-118
			-313	-298	-284	-270	-255	-241	-227	-212	-198	-183	-169
60	25.20	bu	-220	-203	-186	-168	-151	-134	-117	-99	-82	-65	-48
			-271	-253	-236	-219	-202	-185	-167	-150	-133	-116	-99
70	29.40	bu	-178	-158	-138	-118	-98	-78	-58	-38	-17	2	22
			-229	-209	-189	-169	-148	-128	-108	-88	-68	-48	-28
80	33.60	bu	-136	-113	-90	-67	-44	-21	0	23	46	69	92
			-187	-164	-141	-118	-95	-72	-49	-26	-3	19	42
90	37.80	bu	-94	-68	-43	-17	8	34	60	85	111	137	163
			-145	-119	-93	-68	-42	-16	9	35	61	86	112
100	42.00	bu	-52	-24	4	33	61	90	119	147	176	205	233
			-103	-74	-46	-17	11	39	68	97	125	154	183
110	46.20	bu	-11	20	52	83	115	146	178	209	241	272	304
			-61	-30	1	32	64	96	127	159	190	222	253
120	50.40	bu	30	65	99	134	168	202	237	271	306	340	375
			-19	14	49	83	117	152	186	221	255	289	324
130	54.60	bu	72	110	147	184	221	259	296	333	371	408	445
			22	59	96	133	171	208	245	283	320	357	394
140	58.80	bu	114	154	194	235	275	315	355	395	435	476	516
			63	104	144	184	224	264	304	345	385	425	465
150	63.00	bu	156	199	242	285	328	371	414	457	500	543	586
			105	148	191	234	277	320	363	407	450	493	536

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 2022 input prices.

Table 9.A Estimated costs per acre  
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	5.0000	38.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
Sodium Chlorate 5L	gal	8.61	0.6000	5.17	_____
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
Miravis Top	oz	5.31	13.7000	72.75	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	96.0000	32.64	_____
2,4-D Amine 4	pt	3.33	2.0000	6.66	_____
Select Max	pt	13.86	1.0000	13.86	_____
Valor SX	oz	3.20	2.0000	6.40	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
Zidua WG	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
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	1.15	50.0000	57.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.1000	3.63	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.3601	5.97	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0235	0.38	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3000	2.73	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0117	0.10	_____
UNALLOCATED LABOR					
	hour	16.51	0.3512	5.80	_____
DIESEL FUEL					
Tractors	gal	4.48	5.0744	22.75	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.2993	1.34	_____
Roll-Out Pipe Irr.	gal	4.48	7.3316	32.85	_____
REPAIR & MAINTENANCE					
Implements	acre	6.83	1.0000	6.83	_____
Tractors	acre	3.16	1.0000	3.16	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.40	1.0000	0.40	_____
Roll-Out Pipe Irr.	acre	7.16	1.0000	7.16	_____
INTEREST ON OP. CAP.	acre	21.16	1.0000	21.16	_____
TOTAL DIRECT EXPENSES				635.57	_____
FIXED EXPENSES					
Implements	acre	18.30	1.0000	18.30	_____
Tractors	acre	22.39	1.0000	22.39	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	2.92	1.0000	2.92	_____
Roll-Out Pipe Irr.	acre	65.01	1.0000	65.01	_____
TOTAL FIXED EXPENSES				126.88	_____
TOTAL SPECIFIED EXPENSES				762.45	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	60.0000	819.60	_____
				-----	
TOTAL INCOME				819.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	38.00	1.0000	38.00	_____
HARVEST AIDS	acre	11.09	1.0000	11.09	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	84.96	1.0000	84.96	_____
HERBICIDES	acre	136.03	1.0000	136.03	_____
INSECTICIDES	acre	12.97	1.0000	12.97	_____
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	_____
SEED/PLANTS	acre	57.50	1.0000	57.50	_____
ADJUVANTS	acre	3.63	1.0000	3.63	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	16.20	1.0000	16.20	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0625	0.56	_____
IRRIGATE LABOR	hour	9.06	0.3625	3.30	_____
OPERATOR LABOR	hour	16.54	0.4687	7.76	_____
UNALLOCATED LABOR	hour	16.51	0.3512	5.80	_____
DIESEL FUEL	gal	4.48	14.1298	63.32	_____
REPAIR & MAINTENANCE	acre	21.70	1.0000	21.70	_____
INTEREST ON OP. CAP.	acre	21.16	1.0000	21.16	_____
				-----	
TOTAL DIRECT EXPENSES				635.57	_____
RETURNS ABOVE DIRECT EXPENSES				184.03	_____
				-----	
TOTAL FIXED EXPENSES				126.88	_____
				-----	
TOTAL SPECIFIED EXPENSES				762.45	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				57.15	_____

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

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 300	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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Bed/Lister-Roll-Fo	16R-30	MFWD 300	0.060	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	16R-30	MFWD 300	0.050	1.00	Apr		0.05	0.05	0.10	0.04
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	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				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Zidua WG	oz					1.5000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	oz					13.7000				
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 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
Roll-Out Pipe Irr.	acre				Jul	1.0000	0.07	0.07	0.44	
<b>TOTALS</b>							<b>0.46</b>	<b>0.44</b>	<b>0.89</b>	<b>0.35</b>

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

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						0.21	3.54		3.54
Subsoiler	3 shank		2.83	0.46	1.29			0.29	4.87	2.96	7.83
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus (46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	7.45	16.12
Field Cultivate Fld	32'		3.23	1.13	1.46			0.37	6.19	6.44	12.63
Bed/Lister-Roll-Fo	16R-30		4.20	1.18	1.90			0.47	7.75	5.87	13.62
App by Air ( 5 gal)	appl	7.60						0.32	7.92		7.92
Glyphosate 3lbs a.e	oz	10.88						0.46	11.34		11.34
2,4-D Amine 4	pt	6.66						0.28	6.94		6.94
Select Max	pt	13.86						0.59	14.45		14.45
Valor SX	oz	6.40						0.27	6.67		6.67
Surfactant	pt	1.32						0.06	1.38		1.38
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94	17.79
Soybean Seed RR2X	lb	57.50						1.84	59.34		59.34
CruiserMaxx Vibrance	oz	12.21						0.39	12.60		12.60
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	23.50						0.75	24.25		24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33		18.33
Surfactant	pt	1.32						0.04	1.36		1.36
Soybeans Consultant	acre	6.50						0.17	6.67		6.67
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
Engenia	oz	10.62						0.28	10.90		10.90
Dual Magnum	pt	11.45						0.31	11.76		11.76
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
Zidua WG	oz	13.14						0.35	13.49		13.49
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Miravis Top	oz	72.75						1.16	73.91		73.91
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Acephate 90SP	lb	4.97						0.05	5.02		5.02
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Gramoxone SL	oz	5.92						0.06	5.98		5.98
Sodium Chlorate 5L	gal	5.17						0.06	5.23		5.23
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97	34.26
Haul Soybeans	bu	16.20						0.09	16.29		16.29
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02	4.67
Roll-Out Pipe Irr.	acre	7.92	36.11	7.90	4.61			1.21	57.75	70.31	128.06
TOTALS		511.97	63.32	21.70	17.42	0.00	21.16	635.57	126.88	762.45	

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

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	819.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	7.60	22.80	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.09	0.00
FERTILIZERS	105.48	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	12.21	0.00	0.00	72.75	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	37.80	0.00	41.26	56.97	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	12.97	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	57.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	0.00	1.32	0.00	0.00	0.33	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.20
CUSTOM LIME	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	7.21	0.00	0.00	0.00	0.00	0.00	2.06	1.05	2.87	0.23	0.00	4.00
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	16.17	0.00	0.00	0.00	0.00	0.00	3.51	1.34	22.76	10.95	0.00	8.59
REPAIR & MAINTENANCE	5.10	0.00	0.00	0.00	0.00	0.00	3.01	0.40	5.96	1.40	0.00	5.83
INTEREST ON OP. CAP.	10.50	0.00	0.00	0.00	1.98	0.00	3.91	1.76	0.82	1.49	0.51	0.19
TOTAL DIRECT EXPENSES	174.60	0.00	0.00	0.00	48.70	0.00	126.33	68.02	40.33	94.75	48.03	34.81
NET INCOME	-174.60	0.00	0.00	0.00	-48.70	0.00	-126.33	-68.02	-40.33	-94.75	-48.03	784.79
NET INCOME TO DATE	-174.60	-174.60	-174.60	-174.60	-223.30	-223.30	-349.63	-417.65	-457.98	-552.73	-600.76	184.03

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget.

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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/XF, stale seedbed, 16R 30"  
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2023

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-320 -446	-299 -426	-279 -405	-258 -385	-238 -364	-217 -344	-197 -324	-176 -303	-156 -283	-135 -262	-115 -242
60	36.00	bu	-260 -387	-235 -362	-211 -337	-186 -313	-161 -288	-137 -264	-112 -239	-88 -214	-63 -190	-38 -165	-14 -141
70	42.00	bu	-200 -327	-171 -298	-143 -269	-114 -241	-85 -212	-56 -183	-28 -155	0 -126	29 -97	57 -69	86 -40
80	48.00	bu	-140 -267	-107 -234	-74 -201	-42 -169	-9 -136	23 -103	56 -70	88 -37	121 -5	154 27	187 60
90	54.00	bu	-80 -207	-43 -170	-6 -133	29 -96	66 -60	103 -23	140 13	177 50	214 87	251 124	288 161
100	60.00	bu	-20 -147	20 -106	61 -65	102 -24	143 16	184 57	225 98	265 139	306 180	347 221	388 262
110	66.00	bu	38 -87	84 -42	129 2	174 47	219 92	264 137	309 182	354 227	399 272	444 317	489 362
120	72.00	bu	98 -28	147 21	197 70	246 119	295 168	344 217	393 266	443 316	492 365	541 414	590 463
130	78.00	bu	158 31	211 85	265 138	318 191	371 244	425 298	478 351	531 404	584 457	638 511	691 564
140	84.00	bu	218 91	275 148	333 206	390 263	447 321	505 378	562 435	620 493	677 550	734 607	792 665
150	90.00	bu	278 151	339 212	401 274	462 335	524 397	585 458	647 520	708 581	770 643	831 704	893 766

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 2022 input prices.

Table 10.A Estimated costs per acre  
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	4.0000	30.40	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
Sodium Chlorate 5L	gal	8.61	0.6000	5.17	_____
FERTILIZERS					
Phosphorus(46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
Miravis Top	oz	5.31	13.7000	72.75	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	96.0000	32.64	_____
Select Max	pt	13.86	1.0000	13.86	_____
Valor SX	oz	3.20	2.0000	6.40	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.15	50.0000	57.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.1000	3.63	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.3362	5.57	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0352	0.57	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0176	0.15	_____
UNALLOCATED LABOR	hour	16.50	0.2284	3.77	_____
DIESEL FUEL					
Tractors	gal	4.48	3.8348	17.16	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.4490	2.01	_____
Contour Flood Irr.	gal	4.48	10.9974	49.26	_____
REPAIR & MAINTENANCE					
Implements	acre	5.50	1.0000	5.50	_____
Tractors	acre	2.44	1.0000	2.44	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.60	1.0000	0.60	_____
Contour Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.	acre	20.61	1.0000	20.61	_____
TOTAL DIRECT EXPENSES				614.18	_____
FIXED EXPENSES					
Implements	acre	12.62	1.0000	12.62	_____
Tractors	acre	17.27	1.0000	17.27	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	4.38	1.0000	4.38	_____
Contour Flood Irr.	acre	51.51	1.0000	51.51	_____
TOTAL FIXED EXPENSES				104.04	_____
TOTAL SPECIFIED EXPENSES				718.22	_____

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	53.0000	723.98	_____
				-----	
TOTAL INCOME				723.98	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	30.40	1.0000	30.40	_____
HARVEST AIDS	acre	11.09	1.0000	11.09	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	84.96	1.0000	84.96	_____
HERBICIDES	acre	116.23	1.0000	116.23	_____
INSECTICIDES	acre	12.97	1.0000	12.97	_____
SEED/PLANTS	acre	57.50	1.0000	57.50	_____
ADJUVANTS	acre	3.63	1.0000	3.63	_____
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	19.31	1.0000	19.31	_____
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	0.0683	0.61	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	16.54	0.4566	7.55	_____
UNALLOCATED LABOR	hour	16.50	0.2284	3.77	_____
DIESEL FUEL	gal	4.48	16.7057	74.81	_____
REPAIR & MAINTENANCE	acre	27.00	1.0000	27.00	_____
INTEREST ON OP. CAP.	acre	20.61	1.0000	20.61	_____
				-----	
TOTAL DIRECT EXPENSES				614.18	_____
RETURNS ABOVE DIRECT EXPENSES				109.80	_____
TOTAL FIXED EXPENSES				104.04	_____
				-----	
TOTAL SPECIFIED EXPENSES				718.22	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				5.76	_____

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

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	32'	MFWD 300	0.061	1.00	Nov		0.06	0.06	0.06	0.05
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				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Feb			0.01	0.01	0.01
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	16R-30	MFWD 300	0.050	1.00	May		0.05	0.05	0.10	0.04
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jun			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
App by Air ( 5 gal)	appl			1.00	Jul	1.0000				
Miravis Top	oz					13.7000				
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 300	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							0.45	0.42	0.83	0.22

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

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						0.21	3.54		3.54
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	7.45	16.12
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus (46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.06	1.34	1.46	2.80
Glyphosate 3lbs a.e	oz	10.88						0.52	11.40		11.40
Select Max	pt	13.86						0.67	14.53		14.53
Surfactant	pt	1.32						0.06	1.38		1.38
Valor SX	oz	6.40						0.31	6.71		6.71
Soybeans Consultant	acre	6.50						0.21	6.71		6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94	17.79
Soybean Seed RR2X	lb	57.50						1.84	59.34		59.34
CruiserMaxx Vibrance	oz	12.21						0.39	12.60		12.60
Inoculant -Soybean	acre	1.55						0.05	1.60		1.60
Boundary	pt	23.50						0.75	24.25		24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33		18.33
Surfactant	pt	1.32						0.04	1.36		1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.04	1.32	1.46	2.78
Glyphosate 3lbs a.e	oz	10.88						0.35	11.23		11.23
Engenia	oz	10.62						0.34	10.96		10.96
Dual Magnum	pt	11.45						0.37	11.82		11.82
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17		11.17
App by Air ( 5 gal)	appl	7.60						0.16	7.76		7.76
Miravis Top	oz	72.75						1.55	74.30		74.30
Surfactant	pt	0.33						0.01	0.34		0.34
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Acephate 90SP	lb	4.97						0.08	5.05		5.05
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
Gramoxone SL	oz	5.92						0.06	5.98		5.98
Sodium Chlorate 5L	gal	5.17						0.06	5.23		5.23
Surfactant	pt	0.66						0.01	0.67		0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97	34.26
Haul Soybeans	bu	14.31						0.08	14.39		14.39
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02	4.67
Contour Flood Irr.	acre	2.25	57.19	15.77	6.18			1.78	83.17	61.28	144.45
TOTALS		477.01	74.81	27.00	14.75	0.00	20.61	614.18	104.04	718.22	

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, stale seedbed, 16R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

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	723.98
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	7.60	15.20	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.09	0.00
FERTILIZERS	105.48	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	12.21	0.00	72.75	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	31.14	0.00	0.00	74.21	10.88	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	4.97	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	57.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	0.00	0.00	1.32	0.00	0.33	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.31
SURVEY & MARK LEVEES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
CUSTOM LIME	19.31	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	1.93	0.00	0.00	0.41	0.00	0.00	2.92	2.43	1.75	1.75	0.21	3.35
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	4.25	0.00	0.00	0.67	0.00	0.00	4.18	19.99	18.69	18.69	0.49	7.85
REPAIR & MAINTENANCE	1.97	0.00	0.00	0.20	0.00	0.00	3.21	9.44	3.22	3.22	0.09	5.65
INTEREST ON OP. CAP.	9.20	0.00	0.00	1.62	0.00	0.00	5.23	1.20	2.22	0.58	0.39	0.17
TOTAL DIRECT EXPENSES	152.97	0.00	0.00	35.36	0.00	0.00	168.83	46.19	106.56	36.81	36.13	31.33
NET INCOME	-152.97	0.00	0.00	-35.36	0.00	0.00	-168.83	-46.19	-106.56	-36.81	-36.13	692.65
NET INCOME TO DATE	-152.97	-152.97	-152.97	-188.33	-188.33	-188.33	-357.16	-403.35	-509.91	-546.72	-582.85	109.80

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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/XF, stale seedbed, 16R 30"  
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2023

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
-----	-----PRODUCT PRICE-----												
Soybeans	10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07		
PERCENT	YIELD	UNIT	-----dollars-----										
50	26.50	bu	-335	-317	-299	-281	-263	-244	-226	-208	-190	-172	-154
			-439	-421	-403	-385	-367	-349	-330	-312	-294	-276	-258
60	31.80	bu	-282	-260	-239	-217	-195	-174	-152	-130	-108	-87	-65
			-386	-364	-343	-321	-299	-278	-256	-234	-212	-191	-169
70	37.10	bu	-229	-204	-179	-153	-128	-103	-77	-52	-27	-1	23
			-333	-308	-283	-257	-232	-207	-181	-156	-131	-105	-80
80	42.40	bu	-176	-147	-118	-90	-61	-32	-3	25	54	83	112
			-280	-251	-223	-194	-165	-136	-107	-78	-49	-20	8
90	47.70	bu	-124	-91	-58	-26	6	38	71	103	136	169	201
			-228	-195	-162	-130	-97	-65	-32	-0	32	65	97
100	53.00	bu	-71	-34	1	37	73	109	145	182	218	254	290
			-175	-139	-102	-66	-30	5	41	78	114	150	186
110	58.30	bu	-18	21	61	101	140	180	220	260	300	340	379
			-122	-82	-42	-2	36	76	116	156	196	235	275
120	63.60	bu	34	77	121	164	208	251	295	338	382	425	468
			-69	-26	17	60	104	147	191	234	277	321	364
130	68.90	bu	87	134	181	228	275	322	369	416	463	510	557
			-16	30	77	124	171	218	265	312	359	406	453
140	74.20	bu	140	190	241	292	342	393	444	494	545	596	647
			36	86	137	188	238	289	340	390	441	492	542
150	79.50	bu	193	247	301	355	410	464	518	573	627	681	736
			89	143	197	251	306	360	414	469	523	577	632

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 2022 input prices.

Table 11.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2X/XF, 16R 30"  
1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	4.0000	30.40	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
Miravis Top	oz	5.31	13.7000	72.75	_____
HERBICIDES					
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Glyphosate 3lbs a.e	oz	0.34	32.0000	10.88	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
Prevathon	oz	1.16	14.0000	16.24	_____
Bifenthrin	oz	1.13	6.4000	7.23	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.15	50.0000	57.50	_____
ADJUVANTS					
Surfactant	pt	3.30	0.6000	1.98	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.0720	1.19	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0117	0.19	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0058	0.05	_____
UNALLOCATED LABOR					
	hour	16.52	0.1452	2.40	_____
DIESEL FUEL					
Tractors	gal	4.48	1.1121	4.98	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.1496	0.67	_____
1/2-mi Pivot Irr.	gal	4.48	16.4057	73.50	_____
REPAIR & MAINTENANCE					
Implements	acre	3.83	1.0000	3.83	_____
Tractors	acre	0.68	1.0000	0.68	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.20	1.0000	0.20	_____
1/2-mi Pivot Irr.	acre	12.00	1.0000	12.00	_____
INTEREST ON OP. CAP.	acre	17.11	1.0000	17.11	_____
TOTAL DIRECT EXPENSES				572.33	_____
FIXED EXPENSES					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	4.84	1.0000	4.84	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	1.46	1.0000	1.46	_____
1/2-mi Pivot Irr.	acre	49.95	1.0000	49.95	_____
TOTAL FIXED EXPENSES				82.34	_____
TOTAL SPECIFIED EXPENSES				654.67	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
 1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	50.0000	683.00	_____
				-----	
TOTAL INCOME				683.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	30.40	1.0000	30.40	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	84.96	1.0000	84.96	_____
HERBICIDES	acre	74.21	1.0000	74.21	_____
INSECTICIDES	acre	36.44	1.0000	36.44	_____
SEED/PLANTS	acre	57.50	1.0000	57.50	_____
ADJUVANTS	acre	1.98	1.0000	1.98	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	13.50	1.0000	13.50	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0566	0.51	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	16.54	0.1689	2.79	_____
UNALLOCATED LABOR	hour	16.52	0.1452	2.40	_____
DIESEL FUEL	gal	4.48	19.0919	85.53	_____
REPAIR & MAINTENANCE	acre	20.86	1.0000	20.86	_____
INTEREST ON OP. CAP.	acre	17.11	1.0000	17.11	_____
				-----	
TOTAL DIRECT EXPENSES				572.33	_____
RETURNS ABOVE DIRECT EXPENSES				110.67	_____
TOTAL FIXED EXPENSES				82.34	_____
				-----	
TOTAL SPECIFIED EXPENSES				654.67	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				28.33	_____

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

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	16R-30	MFWD 300	0.050	1.00	Jun		0.05	0.05	0.10	0.04
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jul			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
App by Air ( 5 gal)	appl			1.00	Aug	1.0000				
Miravis Top	oz					13.7000				
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	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
Haul Soybeans	bu					50.0000				
Grain Cart Soybean	700 bu	MFWD 300	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							0.16	0.15	0.27	0.14

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

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						0.21	3.54	3.54
Lime (Spread)	ton	19.31						1.24	20.55	20.55
Custom Apply Fert	acre	7.50						0.48	7.98	7.98
Phosphorus(46% P2O5)	cwt	43.50						2.78	46.28	46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95	65.95
Soybeans Consultant	acre	6.50						0.21	6.71	6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.02			0.23	8.77	8.94
Soybean Seed RR2X	lb	57.50						1.53	59.03	59.03
CruiserMaxx Vibrance	oz	12.21						0.33	12.54	12.54
Inoculant -Soybean	acre	1.55						0.04	1.59	1.59
Boundary	pt	23.50						0.63	24.13	24.13
Gramoxone SL 2.0	oz	17.76						0.47	18.23	18.23
Surfactant	pt	1.32						0.04	1.36	1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46
Glyphosate 3lbs a.e	oz	10.88						0.23	11.11	11.11
Engenia	oz	10.62						0.23	10.85	10.85
Dual Magnum	pt	11.45						0.24	11.69	11.69
App by Air ( 5 gal)	appl	7.60						0.12	7.72	7.72
Miravis Top	oz	72.75						1.16	73.91	73.91
Surfactant	pt	0.33						0.01	0.34	0.34
App by Air ( 5 gal)	appl	7.60						0.12	7.72	7.72
Acephate 90SP	lb	4.97						0.08	5.05	5.05
App by Air ( 5 gal)	appl	7.60						0.12	7.72	7.72
Prevathon	oz	16.24						0.26	16.50	16.50
Surfactant	pt	0.33						0.01	0.34	0.34
Bifenthrin	oz	7.23						0.12	7.35	7.35
Incidental Pest										
App by Air ( 5 gal)	appl	7.60						0.08	7.68	7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09	8.09
Header -Soybean	30' Flex		6.38	5.15	2.62			0.08	14.23	19.97
Haul Soybeans	bu	13.50						0.07	13.57	13.57
Grain Cart Soybean	700 bu		1.47	0.50	0.65			0.01	2.63	2.02
1/2-mi Pivot Irr.	acre		73.50	12.00	0.47			1.89	87.86	49.95
TOTALS		442.66	85.53	20.86	6.17	0.00	17.11	572.33	82.34	654.67

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
 1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

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	683.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.80	7.60	0.00
FERTILIZERS	105.48	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	12.21	0.00	72.75	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.26	32.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.44	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.66	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.50
CUSTOM LIME	19.31	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	2.06	0.46	0.04	0.00	3.27
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	25.56	30.07	22.05	0.00	7.85
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.42	1.11	0.68	0.00	5.65
INTEREST ON OP. CAP.	8.68	0.00	0.00	0.00	0.00	0.00	0.22	4.14	1.38	2.36	0.17	0.16
TOTAL DIRECT EXPENSES	144.30	0.00	0.00	0.00	0.00	0.00	7.06	159.02	65.97	149.78	15.77	30.43
NET INCOME	-144.30	0.00	0.00	0.00	0.00	0.00	-7.06	-159.02	-65.97	-149.78	-15.77	652.57
NET INCOME TO DATE	-144.30	-144.30	-144.30	-144.30	-144.30	-144.30	-151.36	-310.38	-376.35	-526.13	-541.90	110.67

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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/XF, 16R 30"  
 1/2 mile pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2023

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-309 -391	-292 -374	-275 -357	-258 -340	-241 -323	-224 -306	-206 -289	-189 -272	-172 -255	-155 -238	-138 -221
60	30.00	bu	-259 -341	-239 -321	-218 -300	-198 -280	-177 -259	-157 -239	-136 -218	-116 -198	-95 -177	-75 -157	-54 -136
70	35.00	bu	-209 -292	-185 -268	-161 -244	-137 -220	-114 -196	-90 -172	-66 -148	-42 -124	-18 -100	5 -76	29 -52
80	40.00	bu	-159 -242	-132 -214	-105 -187	-77 -160	-50 -132	-23 -105	4 -78	31 -50	58 -23	86 3	113 31
90	45.00	bu	-109 -192	-79 -161	-48 -130	-17 -100	12 -69	43 -38	74 -7	105 22	135 53	166 84	197 115
100	50.00	bu	-60 -142	-25 -108	8 -74	42 -39	76 -5	110 28	144 62	178 96	213 130	247 164	281 199
110	55.00	bu	-10 -92	27 -54	64 -17	102 20	140 57	177 95	215 132	252 170	290 207	327 245	365 283
120	60.00	bu	39 -42	80 -1	121 39	162 80	203 121	244 162	285 203	326 244	367 285	408 326	449 367
130	65.00	bu	89 7	133 51	178 95	222 140	267 184	311 229	355 273	400 317	444 362	489 406	533 451
140	70.00	bu	139 57	187 104	235 152	282 200	330 248	378 296	426 343	474 391	521 439	569 487	617 535
150	75.00	bu	189 106	240 158	291 209	342 260	394 311	445 363	496 414	547 465	599 516	650 567	701 619

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 2022 input prices.

Table 12.A Estimated costs per acre  
Soybeans, full-season, RR2X/XF, April planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	2.0000	15.20	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.6600	33.00	_____
Potash (60% K2O)	cwt	46.60	1.0000	46.60	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	96.0000	32.64	_____
2,4-D Amine 4	pt	3.33	2.0000	6.66	_____
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.15	50.0000	57.50	_____
ADJUVANTS					
Surfactant	pt	3.30	0.6000	1.98	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.1764	2.92	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0352	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.0471	0.43	_____
Self-Propelled	hour	9.06	0.0176	0.15	_____
UNALLOCATED LABOR					
	hour	16.47	0.2671	4.40	_____
DIESEL FUEL					
Tractors	gal	4.48	2.7243	12.21	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.4490	2.01	_____
REPAIR & MAINTENANCE					
Implements	acre	5.55	1.0000	5.55	_____
Tractors	acre	1.67	1.0000	1.67	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.60	1.0000	0.60	_____
INTEREST ON OP. CAP.	acre	14.45	1.0000	14.45	_____
TOTAL DIRECT EXPENSES				385.16	_____
FIXED EXPENSES					
Implements	acre	13.69	1.0000	13.69	_____
Tractors	acre	11.85	1.0000	11.85	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	4.38	1.0000	4.38	_____
TOTAL FIXED EXPENSES				48.18	_____
TOTAL SPECIFIED EXPENSES				433.34	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, April planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	43.0000	587.38	_____
				-----	
TOTAL INCOME				587.38	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	15.20	1.0000	15.20	_____
HARVEST AIDS	acre	5.92	1.0000	5.92	_____
FERTILIZERS	acre	79.60	1.0000	79.60	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	102.63	1.0000	102.63	_____
INSECTICIDES	acre	4.97	1.0000	4.97	_____
SEED/PLANTS	acre	57.50	1.0000	57.50	_____
ADJUVANTS	acre	1.98	1.0000	1.98	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	11.61	1.0000	11.61	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0647	0.58	_____
OPERATOR LABOR	hour	16.54	0.2968	4.90	_____
UNALLOCATED LABOR	hour	16.47	0.2671	4.40	_____
DIESEL FUEL	gal	4.48	4.5978	20.60	_____
REPAIR & MAINTENANCE	acre	11.97	1.0000	11.97	_____
INTEREST ON OP. CAP.	acre	14.45	1.0000	14.45	_____
				-----	
TOTAL DIRECT EXPENSES				385.16	_____
RETURNS ABOVE DIRECT EXPENSES				202.22	_____
TOTAL FIXED EXPENSES				48.18	_____
				-----	
TOTAL SPECIFIED EXPENSES				433.34	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				154.04	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, April planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04
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	16R-30	MFWD 300	0.047	1.00	Apr		0.04	0.04	0.09	0.04
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Aug			0.01	0.01	0.01
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	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
Haul Soybeans	bu					43.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
<b>TOTALS</b>							<b>0.29</b>	<b>0.26</b>	<b>0.36</b>	<b>0.26</b>

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, April planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

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						0.21	3.54	3.54
Lime (Spread)	ton	19.31						1.24	20.55	20.55
Custom Apply Fert	acre	7.50						0.48	7.98	7.98
Phosphorus(46% P2O5)	cwt	33.00						2.11	35.11	35.11
Potash (60% K2O)	cwt	46.60						2.98	49.58	49.58
Disk Harrow	32'		4.25	1.97	1.93			0.52	8.67	7.45
Field Cultivate Fld	32'		3.23	1.13	1.46			0.37	6.19	6.44
App by Air ( 5 gal)	appl	7.60						0.28	7.88	7.88
Glyphosate 3lbs a.e	oz	10.88						0.41	11.29	11.29
2,4-D Amine 4	pt	6.66						0.25	6.91	6.91
Plant - Folding	16R-30		3.26	2.62	1.91			0.25	8.04	7.92
Soybean Seed RR2X	lb	57.50						1.84	59.34	59.34
CruiserMaxx Vibrance	oz	12.21						0.39	12.60	12.60
Boundary	pt	23.50						0.75	24.25	24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33	18.33
Surfactant	pt	1.32						0.04	1.36	1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17	11.17
Engenia	oz	10.62						0.28	10.90	10.90
Dual Magnum	pt	11.45						0.31	11.76	11.76
Soybeans Consultant	acre	6.50						0.17	6.67	6.67
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17	11.17
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.01	1.29	1.46
Acephate 90SP	lb	4.97						0.05	5.02	5.02
App by Air ( 5 gal)	appl	7.60						0.08	7.68	7.68
Gramoxone SL	oz	5.92						0.06	5.98	5.98
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97
Haul Soybeans	bu	11.61						0.06	11.67	11.67
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02
TOTALS		328.26	20.60	11.97	9.88	0.00	14.45	385.16	48.18	433.34

Note: Cost of production estimates are based on 2022 input prices.  
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, April planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

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	587.38
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	7.60	0.00	0.00	0.00	0.00	7.60	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.92	0.00
FERTILIZERS	79.60	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	12.21	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	17.54	41.26	43.83	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	4.97	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	57.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.66	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.61
CUSTOM LIME	19.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.39	0.00	0.00	0.00	0.00	0.00	1.91	0.82	0.00	0.00	0.41	3.35
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	7.48	0.00	0.00	0.00	0.00	0.00	3.26	1.34	0.00	0.00	0.67	7.85
REPAIR & MAINTENANCE	3.10	0.00	0.00	0.00	0.00	0.00	2.62	0.40	0.00	0.00	0.20	5.65
INTEREST ON OP. CAP.	7.91	0.00	0.00	0.00	0.00	0.94	3.84	1.40	0.00	0.00	0.21	0.15
TOTAL DIRECT EXPENSES	131.62	0.00	0.00	0.00	0.00	26.08	123.92	54.29	0.00	0.00	20.64	28.61
NET INCOME	-131.62	0.00	0.00	0.00	0.00	-26.08	-123.92	-54.29	0.00	0.00	-20.64	558.77
NET INCOME TO DATE	-131.62	-131.62	-131.62	-131.62	-131.62	-157.70	-281.62	-335.91	-335.91	-335.91	-356.55	202.22

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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/XF, April planted, 16R 30"  
 Non-Delta Area, Mississippi, 2023

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-159 -207	-144 -192	-129 -177	-115 -163	-100 -148	-85 -133	-70 -119	-56 -104	-41 -89	-26 -75	-12 -60
60	25.80	bu	-116 -164	-98 -146	-80 -129	-63 -111	-45 -93	-28 -76	-10 -58	7 -41	24 -23	42 -5	60 11
70	30.10	bu	-73 -121	-52 -100	-32 -80	-11 -59	8 -39	29 -18	50 1	70 22	91 43	111 63	132 84
80	34.40	bu	-30 -78	-6 -55	16 -31	40 -8	63 15	87 38	110 62	134 85	157 109	181 132	204 156
90	38.70	bu	12 -35	38 -9	65 17	91 43	118 70	144 96	171 122	197 149	223 175	250 202	276 228
100	43.00	bu	55 7	84 36	114 65	143 95	172 124	202 154	231 183	260 212	290 242	319 271	349 300
110	47.30	bu	98 50	130 82	162 114	195 146	227 179	259 211	292 243	324 276	356 308	389 340	421 373
120	51.60	bu	141 92	176 128	211 163	246 198	282 233	317 269	352 304	387 339	423 374	458 410	493 445
130	55.90	bu	184 135	222 174	260 212	298 250	336 288	374 326	413 364	451 403	489 441	527 479	565 517
140	60.20	bu	226 178	268 219	309 260	350 302	391 343	432 384	473 425	514 466	555 507	596 548	638 589
150	64.50	bu	269 221	313 265	357 309	401 353	446 397	490 441	534 485	578 530	622 574	666 618	710 662

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 2022 input prices.

Table 13.A Estimated costs per acre  
Soybeans, full-season, RR2X/XF, May planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	1.0000	7.60	_____
HARVEST AIDS					
Gramoxone SL	oz	0.37	16.0000	5.92	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.6600	33.00	_____
Potash (60% K2O)	cwt	46.60	1.0000	46.60	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.34	96.0000	32.64	_____
Select Max	pt	13.86	1.0000	13.86	_____
Fierce	oz	7.75	3.5000	27.13	_____
Gramoxone SL 2.0	oz	0.37	96.0000	35.52	_____
Boundary	pt	11.75	2.0000	23.50	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Dimilin 2L	oz	1.63	1.0000	1.63	_____
Bifenthrin	oz	1.13	1.0500	1.19	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.15	50.0000	57.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.4500	4.79	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.2407	3.98	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0587	0.96	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0293	0.26	_____
UNALLOCATED LABOR					
	hour	16.49	0.3461	5.71	_____
DIESEL FUEL					
Tractors	gal	4.48	3.7171	16.66	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.7484	3.36	_____
REPAIR & MAINTENANCE					
Implements	acre	6.51	1.0000	6.51	_____
Tractors	acre	2.28	1.0000	2.28	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	1.00	1.0000	1.00	_____
INTEREST ON OP. CAP.	acre	12.42	1.0000	12.42	_____
TOTAL DIRECT EXPENSES				438.14	_____
FIXED EXPENSES					
Implements	acre	16.27	1.0000	16.27	_____
Tractors	acre	16.16	1.0000	16.16	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	7.30	1.0000	7.30	_____
TOTAL FIXED EXPENSES				57.99	_____
TOTAL SPECIFIED EXPENSES				496.13	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, May planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	40.0000	546.40	_____
				-----	
TOTAL INCOME				546.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.60	1.0000	7.60	_____
HARVEST AIDS	acre	5.92	1.0000	5.92	_____
FERTILIZERS	acre	79.60	1.0000	79.60	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	154.72	1.0000	154.72	_____
INSECTICIDES	acre	2.82	1.0000	2.82	_____
SEED/PLANTS	acre	57.50	1.0000	57.50	_____
ADJUVANTS	acre	4.79	1.0000	4.79	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	10.80	1.0000	10.80	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0801	0.72	_____
OPERATOR LABOR	hour	16.54	0.3846	6.35	_____
UNALLOCATED LABOR	hour	16.49	0.3461	5.71	_____
DIESEL FUEL	gal	4.48	5.8899	26.40	_____
REPAIR & MAINTENANCE	acre	13.94	1.0000	13.94	_____
INTEREST ON OP. CAP.	acre	12.42	1.0000	12.42	_____
				-----	
TOTAL DIRECT EXPENSES				438.14	_____
RETURNS ABOVE DIRECT EXPENSES				108.26	_____
TOTAL FIXED EXPENSES				57.99	_____
				-----	
TOTAL SPECIFIED EXPENSES				496.13	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				50.27	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, May planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

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	32'	MFWD 300	0.061	1.00	Oct		0.06	0.06	0.06	0.05
Field Cultivate Fld	32'	MFWD 300	0.046	1.00	Oct		0.04	0.04	0.04	0.04
Bed/Lister-Roll-Fo	16R-30	MFWD 300	0.060	1.00	Oct		0.06	0.06	0.06	0.05
Sprayer 600-825gal	90' 250hp		0.011	1.00	Feb			0.01	0.01	0.01
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				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Apr			0.01	0.01	0.01
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	16R-30	MFWD 300	0.050	1.00	May		0.05	0.05	0.10	0.04
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	May			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jun			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Sprayer 600-825gal	90' 250hp		0.011	0.50	Jul			0.00	0.00	0.00
Dimilin 2L	oz					1.0000				
Surfactant	pt					0.0500				
Sprayer 600-825gal	90' 250hp		0.011	0.50	Aug			0.00	0.00	0.00
Bifenthrin	oz					1.0500				
App by Air ( 5 gal)	appl			1.00	Sep	1.0000				
Gramoxone SL	oz					16.0000				
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					40.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
<b>TOTALS</b>							<b>0.38</b>	<b>0.32</b>	<b>0.46</b>	<b>0.34</b>

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, May planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.02	3.35	3.35
Lime (Spread)	ton	19.31						0.10	19.41	19.41
Disk Harrow	32'		4.25	1.97	1.93			0.04	8.19	7.45 15.64
Field Cultivate Fld	32'		3.23	1.13	1.46			0.03	5.85	6.44 12.29
Bed/Lister-Roll-Fo	16R-30		4.20	1.18	1.90			0.04	7.32	5.87 13.19
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.06	1.34	1.46 2.80
Glyphosate 3lbs a.e	oz	10.88						0.52	11.40	11.40
Select Max	pt	13.86						0.67	14.53	14.53
Surfactant	pt	1.32						0.06	1.38	1.38
Custom Apply Fert	acre	7.50						0.28	7.78	7.78
Phosphorus (46% P2O5)	cwt	33.00						1.23	34.23	34.23
Potash (60% K2O)	cwt	46.60						1.74	48.34	48.34
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.05	1.33	1.46 2.79
Fierce	oz	27.13						1.01	28.14	28.14
Gramoxone SL 2.0	oz	17.76						0.66	18.42	18.42
Surfactant	pt	1.32						0.05	1.37	1.37
Soybeans Consultant	acre	6.50						0.21	6.71	6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.06			0.27	8.85	8.94 17.79
Soybean Seed RR2X	lb	57.50						1.84	59.34	59.34
CruiserMaxx Vibrance	oz	12.21						0.39	12.60	12.60
Boundary	pt	23.50						0.75	24.25	24.25
Gramoxone SL 2.0	oz	17.76						0.57	18.33	18.33
Surfactant	pt	1.32						0.04	1.36	1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.04	1.32	1.46 2.78
Glyphosate 3lbs a.e	oz	10.88						0.35	11.23	11.23
Engenia	oz	10.62						0.34	10.96	10.96
Dual Magnum	pt	11.45						0.37	11.82	11.82
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46 2.77
Glyphosate 3lbs a.e	oz	10.88						0.29	11.17	11.17
Sprayer 600-825gal	90' 250hp		0.34	0.10	0.22			0.01	0.67	0.73 1.40
Dimilin 2L	oz	1.63						0.03	1.66	1.66
Surfactant	pt	0.17							0.17	0.17
Sprayer 600-825gal	90' 250hp		0.34	0.10	0.22			0.01	0.67	0.73 1.40
Bifenthrin	oz	1.19						0.02	1.21	1.21
App by Air ( 5 gal)	appl	7.60						0.08	7.68	7.68
Gramoxone SL	oz	5.92						0.06	5.98	5.98
Surfactant	pt	0.66						0.01	0.67	0.67
Header -Soybean	30' Flex		6.38	5.15	2.68			0.08	14.29	19.97 34.26
Haul Soybeans	bu	10.80						0.06	10.86	10.86
Grain Cart Soybean	700 bu		1.47	0.50	0.67			0.01	2.65	2.02 4.67
<b>TOTALS</b>			<b>372.60</b>	<b>26.40</b>	<b>13.94</b>	<b>12.78</b>	<b>0.00</b>	<b>12.42</b>	<b>438.14</b>	<b>57.99 496.13</b>

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, May planted, 16R 30"  
Non-Delta Area, Mississippi, 2023

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	546.40
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.92	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	79.60	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	12.21	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	24.74	0.00	44.89	74.21	10.88	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	1.63	1.19	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	57.50	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	0.00	1.32	1.32	0.00	0.17	0.00	0.66	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.80
CUSTOM LIME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.31
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	0.41	0.00	0.41	2.47	0.41	0.22	0.22	0.00	8.64
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	0.67	0.00	0.67	4.18	0.67	0.34	0.34	0.00	19.53
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.20	0.00	0.20	3.21	0.20	0.10	0.10	0.00	9.93
INTEREST ON OP. CAP.	0.00	0.00	0.00	1.31	0.00	5.02	5.17	0.32	0.04	0.03	0.15	0.38
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	28.65	0.00	139.61	166.77	12.48	2.50	1.88	14.33	71.92
NET INCOME	0.00	0.00	0.00	-28.65	0.00	-139.61	-166.77	-12.48	-2.50	-1.88	-14.33	474.48
NET INCOME TO DATE	0.00	0.00	0.00	-28.65	-28.65	-168.26	-335.03	-347.51	-350.01	-351.89	-366.22	108.26

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget.

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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/XF, May planted, 16R 30"  
 Non-Delta Area, Mississippi, 2023

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE	dollars												
Soybeans	10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07		
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-227	-214	-200	-186	-173	-159	-145	-132	-118	-104	-91
			-285	-272	-258	-244	-231	-217	-203	-190	-176	-162	-149
60	24.00	bu	-187	-171	-155	-138	-122	-105	-89	-73	-56	-40	-23
			-245	-229	-213	-196	-180	-163	-147	-131	-114	-98	-81
70	28.00	bu	-148	-128	-109	-90	-71	-52	-33	-14	4	24	43
			-206	-186	-167	-148	-129	-110	-91	-72	-53	-33	-14
80	32.00	bu	-108	-86	-64	-42	-20	1	23	44	66	88	110
			-166	-144	-122	-100	-78	-56	-34	-13	8	30	52
90	36.00	bu	-68	-43	-19	5	30	54	79	103	128	153	177
			-126	-101	-77	-52	-27	-3	21	45	70	95	119
100	40.00	bu	-28	-1	26	53	80	108	135	162	190	217	244
			-86	-59	-31	-4	22	50	77	104	132	159	186
110	44.00	bu	11	41	71	101	131	161	191	221	251	282	312
			-46	-16	13	43	73	103	133	163	193	224	254
120	48.00	bu	51	84	117	149	182	215	248	280	313	346	379
			-6	26	59	91	124	157	190	222	255	288	321
130	52.00	bu	91	126	162	197	233	268	304	339	375	410	446
			33	68	104	139	175	210	246	281	317	352	388
140	56.00	bu	131	169	207	245	284	322	360	398	437	475	513
			73	111	149	187	226	264	302	340	379	417	455
150	60.00	bu	171	212	253	294	335	376	417	457	498	539	580
			113	154	195	236	277	318	359	400	440	481	522

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 2022 input prices.

Table 14.A Estimated costs per acre  
Soybeans, double crop after wheat, RR2X/XF, 16R 30"  
Non-irrigated, All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.60	3.0000	22.80	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	50.00	0.8700	43.50	_____
Potash (60% K2O)	cwt	46.60	1.3300	61.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	7.63	1.6000	12.21	_____
HERBICIDES					
Boundary	pt	11.75	2.0000	23.50	_____
Gramoxone SL 2.0	oz	0.37	48.0000	17.76	_____
Glyphosate 3lbs a.e	oz	0.34	32.0000	10.88	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	11.45	1.0000	11.45	_____
INSECTICIDES					
Acephate 90SP	lb	6.62	0.7500	4.97	_____
Prevathon	oz	1.16	14.0000	16.24	_____
Bifenthrin	oz	1.13	6.4000	7.23	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.15	50.0000	57.50	_____
ADJUVANTS					
Surfactant	pt	3.30	0.5000	1.65	_____
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	58.00	0.3330	19.31	_____
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	16.54	0.0720	1.19	_____
Harvesters	hour	16.54	0.0851	1.41	_____
Self-Propelled	hour	16.54	0.0117	0.19	_____
HAND LABOR					
Implements	hour	9.06	0.0507	0.46	_____
Self-Propelled	hour	9.06	0.0058	0.05	_____
UNALLOCATED LABOR					
	hour	16.52	0.1452	2.40	_____
DIESEL FUEL					
Tractors	gal	4.48	1.1121	4.98	_____
Harvesters	gal	4.48	1.4243	6.38	_____
Self-Propelled	gal	4.48	0.1496	0.67	_____
REPAIR & MAINTENANCE					
Implements	acre	3.83	1.0000	3.83	_____
Tractors	acre	0.68	1.0000	0.68	_____
Harvesters	acre	4.15	1.0000	4.15	_____
Self-Propelled	acre	0.20	1.0000	0.20	_____
INTEREST ON OP. CAP.	acre	13.90	1.0000	13.90	_____
TOTAL DIRECT EXPENSES				395.72	_____
FIXED EXPENSES					
Implements	acre	7.83	1.0000	7.83	_____
Tractors	acre	4.84	1.0000	4.84	_____
Harvesters	acre	18.26	1.0000	18.26	_____
Self-Propelled	acre	1.46	1.0000	1.46	_____
TOTAL FIXED EXPENSES				32.39	_____
TOTAL SPECIFIED EXPENSES				428.11	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
Non-irrigated, All Areas, Mississippi, 2023

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	13.66	25.0000	341.50	_____
				-----	
TOTAL INCOME				341.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	22.80	1.0000	22.80	_____
FERTILIZERS	acre	105.48	1.0000	105.48	_____
FUNGICIDES	acre	12.21	1.0000	12.21	_____
HERBICIDES	acre	74.21	1.0000	74.21	_____
INSECTICIDES	acre	36.44	1.0000	36.44	_____
SEED/PLANTS	acre	57.50	1.0000	57.50	_____
ADJUVANTS	acre	1.65	1.0000	1.65	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	6.75	1.0000	6.75	_____
CUSTOM LIME	acre	19.31	1.0000	19.31	_____
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	0.0566	0.51	_____
OPERATOR LABOR	hour	16.54	0.1689	2.79	_____
UNALLOCATED LABOR	hour	16.52	0.1452	2.40	_____
DIESEL FUEL	gal	4.48	2.6861	12.03	_____
REPAIR & MAINTENANCE	acre	8.86	1.0000	8.86	_____
INTEREST ON OP. CAP.	acre	13.90	1.0000	13.90	_____
				-----	
TOTAL DIRECT EXPENSES				395.72	_____
RETURNS ABOVE DIRECT EXPENSES				-54.22	_____
TOTAL FIXED EXPENSES				32.39	_____
				-----	
TOTAL SPECIFIED EXPENSES				428.11	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-86.61	_____

Note: Cost of production estimates are based on 2022 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
Non-irrigated, All Areas, Mississippi, 2023

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	16R-30	MFWD 300	0.050	1.00	Jun		0.05	0.05	0.10	0.04
Soybean Seed RR2X	lb					50.0000				
CruiserMaxx Vibrance	oz					1.6000				
Inoculant -Soybean	acre					1.0000				
Boundary	pt					2.0000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Sprayer 600-825gal	90' 250hp		0.011	1.00	Jul			0.01	0.01	0.01
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
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	30' Flex	325 hp	0.085	1.00	Oct		0.08	0.08	0.08	0.07
Haul Soybeans	bu					25.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.16	0.15	0.22	0.14

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
 Non-irrigated, All Areas, Mississippi, 2023

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						0.21	3.54		3.54
Lime (Spread)	ton	19.31						1.24	20.55		20.55
Custom Apply Fert	acre	7.50						0.48	7.98		7.98
Phosphorus(46% P2O5)	cwt	43.50						2.78	46.28		46.28
Potash (60% K2O)	cwt	61.98						3.97	65.95		65.95
Soybeans Consultant	acre	6.50						0.21	6.71		6.71
Plant & Pre-Folding	16R-30		3.51	3.01	2.02			0.23	8.77	8.94	17.71
Soybean Seed RR2X	lb	57.50						1.53	59.03		59.03
CruiserMaxx Vibrance	oz	12.21						0.33	12.54		12.54
Inoculant -Soybean	acre	1.55						0.04	1.59		1.59
Boundary	pt	23.50						0.63	24.13		24.13
Gramoxone SL 2.0	oz	17.76						0.47	18.23		18.23
Surfactant	pt	1.32						0.04	1.36		1.36
Sprayer 600-825gal	90' 250hp		0.67	0.20	0.41			0.03	1.31	1.46	2.77
Glyphosate 3lbs a.e	oz	10.88						0.23	11.11		11.11
Engenia	oz	10.62						0.23	10.85		10.85
Dual Magnum	pt	11.45						0.24	11.69		11.69
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Acephate 90SP	lb	4.97						0.08	5.05		5.05
App by Air ( 5 gal)	appl	7.60						0.12	7.72		7.72
Prevathon	oz	16.24						0.26	16.50		16.50
Surfactant	pt	0.33						0.01	0.34		0.34
Bifenthrin	oz	7.23						0.12	7.35		7.35
Incidental Pest											
App by Air ( 5 gal)	appl	7.60						0.08	7.68		7.68
IncidentalPestTrt \$8	acre	8.00						0.09	8.09		8.09
Header -Soybean	30' Flex		6.38	5.15	2.62			0.08	14.23	19.97	34.20
Haul Soybeans	bu	6.75						0.04	6.79		6.79
Grain Cart Soybean	700 bu		1.47	0.50	0.65			0.01	2.63	2.02	4.65
<b>TOTALS</b>			<b>355.23</b>	<b>12.03</b>	<b>8.86</b>	<b>5.70</b>	<b>0.00</b>	<b>13.90</b>	<b>395.72</b>	<b>32.39</b>	<b>428.11</b>

Note: Cost of production estimates are based on 2022 input prices.  
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a second 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/XF, 16R 30"  
Non-irrigated, All Areas, Mississippi, 2023

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	341.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.20	7.60	0.00
FERTILIZERS	105.48	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	12.21	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.26	32.95	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.44	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57.50	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	0.33	0.00	0.00
CUSTOM FERTILIZE	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HAULING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.75
CUSTOM LIME	19.31	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	2.02	0.41	0.00	0.00	3.27
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	3.51	0.67	0.00	0.00	7.85
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.01	0.20	0.00	0.00	5.65
INTEREST ON OP. CAP.	8.68	0.00	0.00	0.00	0.00	0.00	0.21	3.27	0.73	0.71	0.17	0.13
TOTAL DIRECT EXPENSES	144.30	0.00	0.00	0.00	0.00	0.00	6.71	125.65	34.96	44.68	15.77	23.65
NET INCOME	-144.30	0.00	0.00	0.00	0.00	0.00	-6.71	-125.65	-34.96	-44.68	-15.77	317.85
NET INCOME TO DATE	-144.30	-144.30	-144.30	-144.30	-144.30	-144.30	-151.01	-276.66	-311.62	-356.30	-372.07	-54.22

Note: Cost of production estimates are based on 2022 input prices.

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget.

**Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3<sup>rd</sup> year. Lime cost prorated for application every 3<sup>rd</sup> year.** The budget does not include a 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/XF, 16R 30"  
 Non-irrigated, All Areas, Mississippi, 2023

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Soybeans			10.24	10.92	11.61	12.29	12.97	13.66	14.34	15.02	15.70	16.39	17.07
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-264 -296	-255 -288	-247 -279	-238 -271	-230 -262	-221 -253	-213 -245	-204 -236	-195 -228	-187 -219	-178 -211
60	15.00	bu	-239 -271	-229 -261	-218 -251	-208 -240	-198 -230	-188 -220	-177 -210	-167 -200	-157 -189	-147 -179	-136 -169
70	17.50	bu	-214 -246	-202 -234	-190 -222	-178 -210	-166 -198	-154 -187	-142 -175	-130 -163	-118 -151	-106 -139	-94 -127
80	20.00	bu	-189 -221	-175 -208	-162 -194	-148 -180	-134 -167	-121 -153	-107 -139	-93 -126	-80 -112	-66 -98	-52 -85
90	22.50	bu	-164 -196	-149 -181	-133 -166	-118 -150	-103 -135	-87 -120	-72 -104	-56 -89	-41 -73	-26 -58	-10 -43
100	25.00	bu	-139 -171	-122 -154	-105 -137	-88 -120	-71 -103	-54 -86	-37 -69	-20 -52	-2 -35	14 -18	31 -1
110	27.50	bu	-114 -147	-95 -128	-77 -109	-58 -90	-39 -71	-20 -53	-1 -34	16 -15	35 3	54 21	73 40
120	30.00	bu	-89 -122	-69 -101	-48 -81	-28 -60	-7 -40	12 -19	33 0	53 21	74 41	94 62	115 82
130	32.50	bu	-64 -97	-42 -74	-20 -52	1 -30	23 -8	46 13	68 36	90 58	112 80	134 102	157 124
140	35.00	bu	-39 -72	-15 -48	7 -24	31 -0	55 23	79 47	103 71	127 95	151 118	175 142	199 166
150	37.50	bu	-14 -47	10 -21	36 3	61 29	87 55	113 80	138 106	164 131	189 157	215 183	241 208

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 2022 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, 2023

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	463,000	300	8	13.64	16.54	61.10	48.22	125.87	212.16	338.04
Combine (300-349 hp)	325 hp	468,000	300	8	16.73	16.54	74.95	48.75	140.24	214.45	354.69
Combine (350-399 hp)	355 hp	500,000	300	8	18.27	16.54	81.84	52.08	150.47	229.12	379.59
Combine (400-449 hp)	425 hp	519,000	300	8	21.87	16.54	98.00	54.06	168.60	237.82	406.43
Combine (450-499hp)	475 hp	539,000	300	8	24.44	16.54	109.53	56.14	182.21	246.99	429.21
Tractor ( 20-39hp)CB	MFWD 30	34,200	600	8	1.54	16.54	6.91	1.06	24.52	7.27	31.80
Tractor ( 20-39hp)RB	MFWD 30	27,100	600	8	1.54	16.54	6.91	0.84	24.30	5.76	30.07
Tractor ( 40-59hp)CB	2WD 50	34,600	600	8	2.57	16.54	11.52	1.08	29.15	7.36	36.51
Tractor ( 40-59hp)CB	MFWD 50	47,000	600	8	2.57	16.54	11.52	1.46	29.53	10.00	39.54
Tractor ( 40-59hp)RB	2WD 50	24,500	600	8	2.57	16.54	11.52	0.76	28.83	5.21	34.04
Tractor ( 40-59hp)RB	MFWD 50	31,400	600	8	2.57	16.54	11.52	0.98	29.05	6.68	35.73
Tractor ( 60-89hp)CB	2WD 75	64,300	600	8	3.86	16.54	17.29	2.00	35.84	13.68	49.52
Tractor ( 60-89hp)CB	MFWD 75	72,000	600	8	3.86	16.54	17.29	2.25	36.08	15.32	51.40
Tractor ( 60-89hp)RB	2WD 75	54,100	600	8	3.86	16.54	17.29	1.69	35.52	11.51	47.03
Tractor ( 60-89hp)RB	MFWD 75	48,100	600	8	3.86	16.54	17.29	1.50	35.33	10.23	45.57
Tractor ( 90-119hp)CB	2WD 105	83,900	600	8	5.40	16.54	24.21	2.62	43.37	17.85	61.23
Tractor ( 90-119hp)CB	MFWD 105	104,000	600	8	5.40	16.54	24.21	3.25	44.00	22.13	66.13
Tractor ( 90-119hp)RB	2WD 105	73,400	600	8	5.40	16.54	24.21	2.29	43.04	15.62	58.66
Tractor ( 90-119hp)RB	MFWD 105	81,100	600	8	5.40	16.54	24.21	2.53	43.28	17.25	60.54
Tractor (120-139hp)CB	2WD 130	117,600	600	8	6.69	16.54	29.97	3.67	50.19	25.02	75.22
Tractor (120-139hp)CB	MFWD 130	133,300	600	8	6.69	16.54	29.97	4.16	50.68	28.36	79.05
Tractor (140-159hp)	2WD 150	131,200	600	8	7.72	16.54	34.58	4.10	55.22	27.92	83.15
Tractor (140-159hp)CB	MFWD 150	158,000	600	8	7.72	16.54	34.58	4.93	56.06	33.62	89.69
Tractor (160-179hp)CB	MFWD 170	186,000	600	8	8.75	16.54	39.20	5.81	61.55	41.10	102.65
Tractor (180-199hp)CB	MFWD 190	216,000	600	8	9.77	16.54	43.81	6.75	67.10	47.72	114.83
Tractor (200-249hp)CB	MFWD 225	276,000	600	8	11.58	16.54	51.88	8.62	77.04	60.98	138.03
Tractor (250-349hp)CB	4WD 300	377,000	600	8	15.44	16.54	69.17	11.78	97.50	83.30	180.80
Tractor (250-349hp)CB	MFWD 300	304,000	600	8	15.44	16.54	69.17	9.50	95.21	67.17	162.39
Tractor (250-349hp)CB	Track 300	329,000	600	8	15.44	16.54	69.17	10.28	96.00	72.69	168.69
Tractor (350-449hp)	Track 400	547,000	600	8	20.58	16.54	92.23	17.09	125.87	120.87	246.74
Tractor (350-449hp)CB	4WD 400	428,000	600	8	20.58	16.54	92.23	13.37	122.15	94.57	216.72
Tractor (450-550hp)CB	4WD 500	426,000	600	8	25.73	16.54	115.29	13.31	145.14	94.13	239.28
Tractor (450-550hp)CB	Track 500	527,000	600	8	25.73	16.54	115.29	16.46	148.30	116.45	264.75
Utility Vehicle	800 CC	12,200	200	8	0.70	16.54	2.23	1.90	20.67	8.38	29.06
Utility Vehicle	900 CC	15,800	200	8	1.00	16.54	3.19	2.46	22.19	10.86	33.05

## 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, 2023

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	6.59	14.86	10.79	32.25	47.48	79.74
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	6.59	20.80	14.13	41.54	62.19	103.73
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	4.41	13.90	9.61	27.92	42.28	70.21
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	5.58	17.86	15.85	39.31	69.75	109.06
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	4.41	14.10	12.51	31.03	55.07	86.11
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	6.59	23.77	21.58	51.96	94.97	146.93
Cotton Picker/Module	6R-30 (500)	936,000	200	8	25.73	0.218	5.58	25.16	31.91	62.66	140.41	203.08
Cotton Picker/Module	6R-38 (500)	937,000	200	8	25.73	0.172	4.41	19.86	25.22	49.50	110.97	160.48
Dry Applicator SP	70'300cuft	469,000	350	8	16.98	0.015	0.31	1.14	0.37	1.84	2.78	4.63
Sprayer 600-750gal	60' 175hp	216,000	350	8	9.00	0.017	0.37	0.71	0.20	1.28	1.49	2.78
Sprayer 600-825gal	80' 175hp	269,000	350	8	11.81	0.013	0.27	0.69	0.19	1.16	1.39	2.56
Sprayer 600-825gal	90' 250hp	316,000	350	8	12.73	0.011	0.24	0.67	0.19	1.11	1.45	2.57
Sprayer 800gal	100' 250hp	353,000	350	8	14.15	0.010	0.22	0.67	0.20	1.09	1.46	2.56
Sprayer 800gal	80' 250hp	292,000	350	8	12.86	0.013	0.27	0.76	0.20	1.24	1.51	2.76
Sprayer 1000-1400gal	90' 275hp	330,000	350	8	14.15	0.010	0.22	0.67	0.18	1.08	1.37	2.45
Sprayer 1000gal	100' 300hp	479,000	350	8	15.44	0.010	0.22	0.73	0.27	1.22	1.99	3.21
Sprayer 1200+gal	120' 300hp	489,000	350	8	15.44	0.008	0.18	0.60	0.23	1.02	1.69	2.71

Notes:

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

Direct: Does not include interest on operating capital.

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2023

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M--- Imp.	P.U.	Total Direct	--Fixed-- Imp.	P.U.	Total Cost
			dollars	hours	years	hr/ac	-----\$/acre-----							
Bed-Paratill w/ro	4R-30	MFWD 225	27,800	150	12	0.204	3.37	10.60	2.05	1.76	17.79	4.10	12.46	34.35
Bed-Paratill w/ro	4R-38	MFWD 225	27,800	150	12	0.160	2.66	8.34	1.61	1.38	14.01	3.23	9.81	27.05
Bed-Paratill w/ro	6R-38	MFWD 225	38,000	150	12	0.107	1.77	5.57	1.47	0.92	9.76	2.95	6.55	19.27
Bed-Rip/Disk Fold.	8R-38	MFWD 190	69,600	300	20	0.073	1.20	3.20	0.25	0.49	5.15	1.46	3.48	10.10
Bed-Rip/Disk Fold.	12R-30	MFWD 225	98,700	300	20	0.061	1.01	3.19	0.30	0.53	5.05	1.74	3.75	10.55
Bed-Rip/Disk Fold.	12R-38	MFWD 225	98,700	300	20	0.046	0.76	2.39	0.22	0.39	3.78	1.31	2.81	7.91
Bed-Rip/Disk Rigid	4R-30	MFWD 190	30,900	300	20	0.184	3.05	8.09	0.28	1.24	12.69	1.64	8.82	23.15
Bed-Rip/Disk Rigid	4R-38	MFWD 190	30,900	300	20	0.146	2.42	6.42	0.22	0.99	10.07	1.30	7.00	18.37
Bed-Rip/Disk Rigid	6R-30	MFWD 190	42,800	300	20	0.123	2.03	5.40	0.26	0.83	8.53	1.51	5.88	15.93
Bed-Rip/Disk Rigid	6R-38	MFWD 190	42,800	300	20	0.097	1.60	4.26	0.20	0.65	6.73	1.19	4.64	12.57
Bed-Rip/Disk Rigid	8R-30	MFWD 190	56,700	300	20	0.139	2.29	6.09	0.39	0.93	9.72	2.26	6.63	18.62
Bed-Rip/Disk Rigid	8R-38	MFWD 190	56,700	300	20	0.073	1.20	3.20	0.20	0.49	5.11	1.19	3.48	9.78
Bed-Rip/Disk/Cond.	6-Row	MFWD 225	37,000	150	12	0.107	1.77	5.57	1.43	0.92	9.72	2.87	6.55	19.15
Bed-Rip/Disk/Cond.	8-Row	MFWD 225	49,300	150	12	0.080	1.33	4.19	1.43	0.69	7.66	2.87	4.92	15.46
Bed-Subsoil Fold	8R-38	MFWD 225	69,600	150	12	0.080	1.33	4.19	2.02	0.69	8.25	2.06	4.92	17.23
Bed-Subsoil Fold	8R-38 2x1	MFWD 225	98,700	150	12	0.053	0.88	2.78	1.91	0.46	6.05	3.83	3.27	13.17
Bed-Subsoil Fold	12R-38	MFWD 225	98,700	150	12	0.053	0.88	2.78	1.91	0.46	6.05	3.83	3.27	13.17
Bed-Subsoil Rigid	4R-30	MFWD 225	26,100	150	12	0.204	3.37	10.60	1.92	1.76	17.66	3.85	12.46	33.98
Bed-Subsoil Rigid	4R-38	MFWD 225	27,800	150	12	0.160	2.66	8.34	1.61	1.38	14.01	3.23	9.81	27.05
Bed-Subsoil Rigid	6R-30	MFWD 225	36,300	150	12	0.136	2.25	7.06	1.78	1.17	12.28	3.57	8.30	24.16
Bed-Subsoil Rigid	6R-38	MFWD 225	37,700	150	12	0.107	1.77	5.57	1.46	0.92	9.74	2.92	6.55	19.23
Bed-Subsoil Rigid	8R-30	MFWD 225	48,500	150	12	0.102	1.68	5.30	1.78	0.88	9.66	3.57	6.23	19.47
Bed-Subsoil Rigid	8R-38	MFWD 225	50,100	150	12	0.080	1.33	4.19	1.46	0.69	7.68	2.92	4.92	15.53
Bed/Disk (Hipper)	4R-38	MFWD 150	15,700	160	10	0.147	2.44	5.10	0.57	0.72	8.85	1.73	4.96	15.55
Bed/Disk (Hipper)	6R-38	MFWD 170	23,900	160	10	0.098	1.63	3.86	0.58	0.57	6.66	1.76	4.05	12.48
Bed/Disk (Hipper)	8R-30	MFWD 190	30,700	160	10	0.093	1.55	4.10	0.71	0.63	7.01	2.15	4.47	13.64
Bed/Disk (Hipper)	8R-38 2x1	MFWD 190	76,700	160	10	0.049	0.81	2.16	0.94	0.33	4.25	2.83	2.35	9.44
Bed/Disk (Hipper)	12R-30	MFWD 225	59,900	160	10	0.062	1.03	3.24	0.93	0.53	5.75	2.80	3.81	12.36
Bed/Disk (Hipper)	12R-38	MFWD 225	76,700	160	10	0.049	0.81	2.55	0.94	0.42	4.74	2.83	3.00	10.59
Bed/Disk (Hipper)	16R40	MFWD 300	90,600	160	10	0.035	0.58	2.44	0.80	0.33	4.17	2.40	2.37	8.94
Bed/Disk (Hipper) Fl	8R-38	MFWD 190	33,400	160	10	0.074	1.22	3.24	0.61	0.50	5.59	1.85	3.53	10.98
Bed/Disk (Hipper) Rd	8R-38	MFWD 190	30,800	160	10	0.074	1.22	3.24	0.57	0.50	5.54	1.71	3.53	10.79
Bed/Disk w/roller	8R-30	MFWD 190	40,100	160	10	0.093	1.55	4.10	0.93	0.63	7.23	2.81	4.47	14.52
Bed/Disk w/roller	8R-38	MFWD 190	45,900	160	10	0.074	1.22	3.24	0.85	0.50	5.82	2.54	3.53	11.90
Bed/Disk w/roller	12R-30/40	MFWD 225	76,000	160	10	0.062	1.03	3.24	1.18	0.53	6.00	3.55	3.81	13.37
Bed/Lister	4R-38	MFWD 150	25,200	160	8	0.228	3.77	7.89	1.34	1.12	14.15	4.76	7.67	26.60
Bed/Lister	6R-38	MFWD 150	28,900	160	8	0.120	1.98	4.15	0.81	0.59	7.55	2.87	4.04	14.47
Bed/Lister	8R-30	MFWD 190	39,800	160	8	0.114	1.88	5.00	1.06	0.77	8.72	3.76	5.45	17.94
Bed/Lister	8R-38	MFWD 190	40,100	160	8	0.090	1.49	3.95	0.84	0.60	6.90	2.99	4.30	14.21
Bed/Lister	8R-38 2x1	MFWD 190	60,700	160	8	0.060	0.99	2.63	0.85	0.40	4.88	3.02	2.86	10.77
Bed/Lister	12R-38	MFWD 225	60,700	160	8	0.060	0.99	3.11	0.85	0.51	5.48	3.02	3.66	12.17
Bed/Lister	16R-30	MFWD 225	67,400	160	8	0.035	0.58	1.82	0.55	0.30	3.26	1.96	2.14	7.36
Bed/Lister	16R40	MFWD 300	80,800	160	8	0.043	0.71	2.98	0.81	0.40	4.91	2.88	2.89	10.69
Bed/Lister-Roll-Fo	8R-38	MFWD 190	29,200	160	10	0.095	1.58	4.20	0.70	0.64	7.13	2.09	4.57	13.81
Bed/Lister-Roll-Fo	12R-30	MFWD 225	56,400	160	10	0.080	1.33	4.19	1.14	0.69	7.37	3.41	4.93	15.72
Bed/Lister-Roll-Fo	12R-38	MFWD 225	37,600	160	10	0.063	1.05	3.31	0.60	0.55	5.51	1.79	3.89	11.21
Bed/Lister-Roll-Fo	16R-30	MFWD 225	39,500	160	10	0.060	1.00	3.14	0.59	0.52	5.27	1.79	3.69	10.76
Bed/Lister-Roll-Ri	8R-38	MFWD 190	25,000	160	10	0.095	1.58	4.20	0.59	0.64	7.03	1.79	4.57	13.40
Blade-Box	6'-7'	MFWD 105	2,070	200	20	0.020	0.33	0.48	0.01	0.05	0.88	0.01	0.34	1.24
Boll Buggy	4R-38 (250)	MFWD 190	30,500	200	10	0.257	4.26	11.29	1.96	1.74	19.26	4.57	12.30	36.13
Boll Buggy	4R-38 (350)	MFWD 190	30,500	200	10	0.257	4.26	11.29	1.96	1.74	19.26	4.57	12.30	36.13
Boll Buggy	4R2x1 (350)	MFWD 190	30,500	200	10	0.172	2.85	7.54	1.31	1.16	12.87	3.05	8.22	24.15
Boll Buggy	6R-30 (355)	MFWD 190	30,500	200	10	0.218	3.60	9.56	1.66	1.47	16.30	3.86	10.41	30.59
Boll Buggy	6R-38 (355)	MFWD 190	30,500	200	10	0.172	2.85	7.54	1.31	1.16	12.87	3.05	8.22	24.15
Chisel Plow-Folding	24'	MFWD 190	48,500	150	12	0.076	1.26	3.34	1.33	0.51	6.46	2.67	3.64	12.79
Chisel Plow-Folding	32'	MFWD 225	65,000	150	12	0.057	0.95	2.99	1.35	0.49	5.80	2.71	3.52	12.04
Chisel Plow-Folding	42'	MFWD 225	71,900	150	12	0.044	0.72	2.28	1.14	0.37	4.53	2.28	2.68	9.50
Chisel Plow-Folding	50'	MFWD 225	99,100	150	12	0.036	0.61	1.91	1.32	0.31	4.17	2.64	2.25	9.07
Chisel Plow-Folding	61'	MFWD 225	114,800	150	12	0.030	0.50	1.57	1.25	0.26	3.59	2.51	1.84	7.95
Chisel Plow-Rigid	10'	MFWD 170	8,340	150	12	0.184	3.05	7.24	0.55	1.07	11.93	1.11	7.59	20.64
Chisel Plow-Rigid	15'	2WD 130	18,870	150	12	0.123	2.03	3.69	0.83	0.45	7.02	1.68	3.08	11.79
Chisel Plow-Rigid	20'	MFWD 225	13,400	150	12	0.102	1.69	5.32	0.49	0.88	8.41	0.99	6.26	15.66
Cultivate	4R-30	2WD 105	19,000	150	10	0.206	3.41	4.99	1.04	0.54	9.99	3.13	3.68	16.80
Cultivate	4R-38	2WD 105	19,000	150	10	0.162	2.68	3.93	0.82	0.37	7.81	2.46	2.53	12.81
Cultivate	6R-30	MFWD 150	25,200	150	10	0.137	2.27	4.75	0.92	0.67	8.63	2.76	4.62	16.02
Cultivate	6R-38	MFWD 150	26,300	150	10	0.108	1.79	3.75	0.76	0.53	6.84	2.28	3.65	12.77
Cultivate	8R-30	MFWD 190	32,600	150	10	0.103	1.70	4.51	0.89	0.69	7.81	2.68	4.92	15.42
Cultivate	8R-38	MFWD 190	35,800	150	10	0.073	1.21	3.22	0.70	0.49	5.64	2.10	3.51	11.26
Cultivate	8R-38 2x1	MFWD 190	50,700	150	10	0.054	0.89	2.37	0.73	0.36	4.37	2.19	2.59	9.16
Cultivate	12R-30	MFWD 225	50,800	150	10	0.068	1.13	3.56	0.93	0.59	6.22	2.79	4.19	13.21
Cultivate	12R-38	MFWD 225	50,700	150	10	0.054	0.89	2.81	0.73	0.46	4.91	2.19	3.31	10.42
Cultivate	16R-30	MFWD 225	78,900	150	10	0.051	0.85	2.67	1.08	0.44	5.05	3.25	3.14	11.45
Cultivate & Post	4R-30	2WD 105	24,700	150	10	0.220	4.63	5.32	1.44	0.50	11.91	4.34	3.43	19.69
Cultivate & Post	4R-38	2WD 105	24,700	150	10	0.173	3.64	4.19	1.14	0.39	9.38	3.42	2.70	15.50
Cultivate & Post	6R-30	MFWD 150	30,900	150	10	0.146	3.09	5.07	1.20	0.72	10.09	3.62	4.93	18.65
Cultivate & Post	6R-38	MFWD 150	32,000	150	10	0.115	2.43	4.00	0.98	0.57	8.00	2.96	3.89	14.85
Cultivate & Post	8R-30	MFWD 190	38,300	150	10	0.110	2.31	4.81	1.12	0.74	9.00	3.36	5.25	17.62
Cultivate & Post	8R-38	MFWD 190	41,500	150	10	0.086	1.83	3.81	0.96	0.58	7.19	2.88	4.15	14.22
Cultivate & Post	8R-38 2x1	MFWD 190	56,400	150	10	0.057	1.21	2.53	0.87	0.39	5.01	2.60	2.76	10.39
Cultivate & Post	12R-30	MFWD 225	56,500	150	10	0.073	1.54	3.80	1.10	0.63	7.08	3.31	4.47	14.87

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2023 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Cultivate & Post	12R-38	MFWD 225	56,400	150	10	0.057	1.21	3.00	0.87	0.49	5.59	2.60	3.53	11.73
Cultivate & Post	16R-30	MFWD 225	84,600	150	10	0.055	1.15	2.85	1.24	0.47	5.72	3.71	3.35	12.80
Disk & Incorporate	14'	2WD 130	45,200	200	10	0.149	3.15	4.48	2.02	0.55	10.21	4.05	3.74	18.02
Disk & Incorporate	20'	MFWD 190	89,300	200	10	0.092	1.94	4.05	2.47	0.62	9.09	4.94	4.41	18.45
Disk & Incorporate	24'	MFWD 190	71,300	200	10	0.087	1.83	3.82	1.86	0.58	8.12	3.73	4.16	16.01
Disk & Incorporate	28'	MFWD 225	80,400	200	10	0.074	1.57	3.88	1.80	0.64	7.90	3.60	4.56	16.08
Disk & Incorporate	32'	MFWD 225	87,300	200	10	0.065	1.37	3.39	1.71	0.56	7.05	3.42	3.99	14.47
Disk Harrow	14'	2WD 130	39,400	180	10	0.140	2.32	4.20	1.53	0.51	8.57	3.68	3.51	15.77
Disk Harrow	20'	MFWD 190	83,600	180	10	0.098	1.62	4.30	2.28	0.66	8.87	5.46	4.68	19.02
Disk Harrow	24'	MFWD 190	65,600	180	10	0.081	1.35	3.58	1.49	0.55	6.98	3.57	3.90	14.46
Disk Harrow	28'	MFWD 225	74,700	180	10	0.070	1.16	3.63	1.45	0.60	6.86	3.49	4.27	14.62
Disk Harrow	32'	MFWD 225	81,500	180	10	0.061	1.01	3.18	1.38	0.52	6.11	3.33	3.74	13.19
Disk Harrow	42'	MFWD 225	134,800	180	10	0.046	0.77	2.42	1.75	0.40	5.35	4.19	2.85	12.40
Disk Harrow 40-100hp	14'	2WD 75	23,100	180	10	0.140	2.32	2.42	0.90	0.23	5.88	2.15	1.61	9.65
Disk Heavy	14'	MFWD 150	39,400	180	10	0.145	2.41	5.04	1.59	0.72	9.78	3.83	4.90	18.51
Disk Heavy	20'	MFWD 190	83,600	180	10	0.097	1.60	4.26	2.25	0.65	8.78	5.41	4.64	18.85
Disk Heavy	28'	MFWD 225	74,700	180	10	0.075	1.25	3.92	1.57	0.65	7.40	3.76	4.61	15.78
Disk Ripper	15'	MFWD 225	50,800	180	10	0.136	2.25	7.06	1.92	1.17	12.41	4.60	8.30	25.33
Ditcher		2WD 130	8,760	200	10	0.020	0.33	0.59	0.07	0.07	1.07	0.10	0.50	1.67
Ditcher (1m/160a)		2WD 130	8,760	200	10	0.009	0.15	0.28	0.03	0.03	0.50	0.04	0.23	0.78
Fert Appl (Liquid)	4R-38	MFWD 150	25,400	150	8	0.154	3.25	5.34	2.61	0.76	11.99	3.34	5.20	20.53
Fert Appl (Liquid)	6R-30	MFWD 170	25,300	150	8	0.130	2.75	5.13	2.20	0.76	10.86	2.82	5.38	19.06
Fert Appl (Liquid)	6R-38	MFWD 170	25,300	150	8	0.103	2.17	4.05	1.74	0.60	8.57	2.22	4.24	15.05
Fert Appl (Liquid)	8R-30	MFWD 190	26,300	150	8	0.098	2.06	4.30	1.72	0.66	8.75	2.19	4.68	15.64
Fert Appl (Liquid)	8R-38	MFWD 190	29,500	150	8	0.077	1.63	3.40	1.52	0.52	7.08	1.94	3.70	12.74
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	32,900	150	8	0.051	1.08	2.26	1.13	0.34	4.83	1.44	2.46	8.75
Fert Appl (Liquid)	12R-30	MFWD 225	30,600	150	8	0.078	1.65	4.07	1.60	0.67	8.01	2.04	4.79	14.85
Fert Appl (Liquid)	12R-38	MFWD 225	31,100	150	8	0.051	1.08	2.68	1.07	0.44	5.28	1.36	3.15	9.80
Field Cult & Inc	42'	MFWD 225	82,900	100	10	0.037	0.79	1.95	0.78	0.32	3.86	3.75	2.30	9.92
Field Cult & Inc	50'	MFWD 225	92,500	100	10	0.031	0.66	1.64	0.73	0.27	3.32	3.51	1.93	8.77
Field Cult & Inc Fld	24'	MFWD 170	43,700	100	10	0.066	1.39	2.59	0.72	0.38	5.09	3.46	2.71	11.27
Field Cult & Inc Fld	32'	MFWD 190	64,800	100	10	0.049	1.04	2.17	0.80	0.33	4.35	3.85	2.36	10.57
Field Cult & Inc Rdg	12'	2WD 150	22,800	100	10	0.132	2.78	4.57	0.75	0.54	8.65	3.61	3.69	15.96
Field Cultivate Fld	24'	MFWD 170	38,000	100	10	0.062	1.02	2.43	0.59	0.36	4.42	2.83	2.55	9.81
Field Cultivate Fld	32'	MFWD 190	59,100	100	10	0.046	0.77	2.04	0.68	0.31	3.82	3.30	2.22	9.35
Field Cultivate Fld	42'	MFWD 225	73,200	100	10	0.035	0.58	1.84	0.65	0.30	3.38	3.12	2.16	8.67
Field Cultivate Fld	50'	MFWD 225	82,900	100	10	0.029	0.49	1.54	0.61	0.25	2.91	2.96	1.82	7.70
Field Cultivate Rdg	12'	2WD 150	17,100	100	10	0.124	2.05	4.30	0.53	0.51	7.40	2.55	3.47	13.42
Grain Cart Corn	500 bu	MFWD 190	34,100	200	12	0.025	0.41	1.10	0.23	0.17	1.93	0.46	1.20	3.60
Grain Cart Corn	700 bu	MFWD 190	51,600	200	12	0.025	0.41	1.10	0.35	0.17	2.05	0.70	1.20	3.96
Grain Cart Corn	1000 bu	MFWD 225	63,600	200	12	0.025	0.41	1.31	0.43	0.21	2.38	0.87	1.54	4.79
Grain Cart Rice	500 bu	MFWD 190	34,100	200	12	0.062	1.03	2.73	0.57	0.42	4.77	1.15	2.98	8.90
Grain Cart Rice	700 bu	MFWD 190	51,600	200	12	0.055	0.90	2.40	0.76	0.37	4.45	1.53	2.62	8.62
Grain Cart Rice	1000 bu	MFWD 190	63,600	200	12	0.045	0.75	2.00	0.78	0.30	3.86	1.57	2.18	7.63
Grain Cart Soybean	500 bu	MFWD 190	34,100	200	12	0.025	0.42	1.11	0.23	0.17	1.94	0.47	1.21	3.63
Grain Cart Soybean	700 bu	MFWD 190	51,600	200	12	0.021	0.35	0.93	0.29	0.14	1.72	0.59	1.01	3.33
Grain Cart Soybean	1000 bu	MFWD 190	63,600	200	12	0.021	0.35	0.93	0.36	0.14	1.79	0.73	1.01	3.53
Grain Cart Wht/Sor	500 bu	MFWD 190	34,100	200	12	0.025	0.42	1.11	0.23	0.17	1.94	0.47	1.21	3.63
Grain Cart Wht/Sor	700 bu	MFWD 190	51,600	200	12	0.021	0.35	0.93	0.29	0.14	1.72	0.59	1.01	3.33
Grain Cart Wht/Sor	1000 bu	MFWD 190	63,600	200	12	0.021	0.35	0.93	0.36	0.14	1.79	0.73	1.01	3.53
Grain Drill	10'	2WD 130	33,800	150	8	0.188	4.82	5.65	2.39	0.69	13.56	5.21	4.71	23.50
Grain Drill	12'	2WD 130	40,700	150	8	0.157	4.02	4.71	2.39	0.57	11.70	5.23	3.93	20.87
Grain Drill	15'	MFWD 150	38,900	150	8	0.125	3.21	4.34	1.83	0.62	10.02	4.00	4.22	18.25
Grain Drill	20'	MFWD 170	45,400	150	8	0.094	2.41	3.69	1.60	0.54	8.26	3.50	3.87	15.64
Grain Drill	24'	MFWD 190	68,900	150	8	0.078	2.01	3.44	2.03	0.53	8.01	4.43	3.75	16.19
Grain Drill	30'	MFWD 225	82,500	150	8	0.062	1.60	3.26	1.94	0.54	7.35	4.24	3.83	15.43
Grain Drill	35'	MFWD 225	100,200	150	8	0.053	1.37	2.79	2.02	0.46	6.66	4.41	3.28	14.36
Grain Drill & Pre	10'	2WD 130	39,100	150	8	0.203	5.19	6.08	2.97	0.74	15.01	6.50	5.08	26.59
Grain Drill & Pre	12'	2WD 130	46,100	150	8	0.169	4.33	5.07	2.92	0.62	12.95	6.38	4.23	23.57
Grain Drill & Pre	15'	MFWD 150	44,200	150	8	0.135	3.46	4.68	2.24	0.66	11.06	4.89	4.55	20.51
Grain Drill & Pre	20'	MFWD 170	50,800	150	8	0.101	2.59	3.98	1.93	0.59	9.10	4.22	4.17	17.50
Grain Drill & Pre	24'	MFWD 190	74,200	150	8	0.084	2.16	3.70	2.35	0.57	8.79	5.14	4.03	17.97
Grain Drill & Pre	30'	MFWD 225	87,800	150	8	0.067	1.73	3.51	2.22	0.58	8.05	4.86	4.12	17.05
Grain Drill & Pre	35'	MFWD 225	110,400	150	8	0.058	1.48	3.01	2.40	0.50	7.39	5.24	3.53	16.18
Grain Drill & Pre T	8R-38	MFWD 225	57,000	150	8	0.062	1.60	3.26	1.34	0.54	6.75	2.93	3.83	13.52
Harrow - Folding	24'	MFWD 190	13,800	200	10	0.064	1.07	2.83	0.31	0.43	4.65	0.53	3.08	8.27
Harrow - Folding	30'	MFWD 190	15,300	200	10	0.051	0.85	2.26	0.27	0.34	3.75	0.47	2.47	6.69
Harrow - Folding	40'	MFWD 190	21,300	200	10	0.038	0.64	1.70	0.28	0.26	2.89	0.49	1.85	5.24
Harrow - Folding	48'	MFWD 225	26,000	200	10	0.032	0.53	1.67	0.29	0.27	2.78	0.50	1.97	5.26
Header - Corn	6R-30	265 hp	64,800	300	8	0.170	2.81	10.40	2.75	8.21	24.19	4.69	36.12	65.01
Header - Corn	6R-38	265 hp	64,900	300	8	0.134	2.22	8.21	2.18	6.48	19.10	3.71	28.52	51.33
Header - Corn	8R-30	265 hp	87,400	300	8	0.127	2.11	7.80	2.79	6.15	18.86	4.75	27.09	50.71
Header - Corn	8R-38	325 hp	80,000	300	8	0.100	1.66	7.56	2.01	4.92	16.17	3.43	21.65	41.26
Header - Corn	12R-20	325 hp	129,500	300	8	0.127	2.11	9.57	4.13	6.22	22.04	7.03	27.38	56.47
Header - Corn	12R-30	325 hp	125,000	300	8	0.085	1.40	6.38	2.66	4.15	14.60	4.52	18.25	37.38
Header - Draper (CL)	25' Rigid	265 hp	77,900	300	8	0.203	3.35	12.40	3.62	9.79	29.18	6.47	43.08	78.75
Header - Draper (CL)	30' Rigid	325 hp	81,600	300	8	0.169	2.79	12.68	3.16	8.24	26.89	5.65	36.29	68.84
Header - Draper (CL)	36' Rigid	355 hp	85,500	300	8	0.141	2.33	11.54	2.76	7.34	23.98	4.93	32.31	61.23
Header - Draper (CL)	40' Rigid	425 hp	90,400	300	8	0.126	2.09	12.43	2.62	6.86	24.02	4.69	30.18	58.91
Header - Draper (SL)	25' Rigid	325 hp	77,900	300	8	0.176	2.91	13.19	3.14	8.58	27.82	5.61	37.74	71.18

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2023 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M--- Imp.	P.U.	Total Direct	--Fixed-- Imp.	P.U.	Total Cost
			dollars	hours	years	hr/ac	-----\$/acre-----							
Header - Draper (SL)	30' Rigid	325 hp	81,600	300	8	0.146	2.42	10.99	2.74	7.15	23.31	4.89	31.45	59.66
Header - Draper (SL)	36' Rigid	355 hp	85,500	300	8	0.122	2.02	10.00	2.39	6.36	20.78	4.27	28.00	53.06
Header - Draper (SL)	40' Rigid	425 hp	90,400	300	8	0.110	1.81	10.78	2.27	5.94	20.82	4.07	26.16	51.05
Header -RiceStrp(CL)	20'	265 hp	50,600	300	8	0.253	4.19	15.51	3.21	12.24	35.16	5.46	53.85	94.49
Header -RiceStrp(CL)	24'	325 hp	54,000	300	8	0.211	3.49	15.85	2.85	10.31	32.52	4.86	45.36	82.75
Header -RiceStrp(CL)	32'	325 hp	60,800	300	8	0.158	2.62	11.89	2.41	7.73	24.66	4.10	34.02	62.79
Header -RiceStrp(SL)	20'	265 hp	50,600	300	8	0.220	3.63	13.44	2.78	10.61	30.47	4.73	46.67	81.89
Header -RiceStrp(SL)	24'	325 hp	54,000	300	8	0.183	3.03	13.74	2.47	8.93	28.18	4.21	39.31	71.71
Header -RiceStrp(SL)	32'	325 hp	60,800	300	8	0.137	2.27	10.30	2.09	6.70	21.37	3.55	29.48	54.41
Header -Soybean	22' Flex	265 hp	38,700	300	8	0.116	1.92	7.09	1.12	5.59	15.73	1.91	24.63	42.28
Header -Soybean	25' Flex	325 hp	39,600	300	8	0.102	1.68	7.65	1.01	4.98	15.33	1.72	21.91	38.97
Header -Soybean	30' Flex	325 hp	47,100	300	8	0.085	1.40	6.38	1.00	4.15	12.94	1.70	18.25	32.90
Header -Soybean	35' Flex	355 hp	55,300	300	8	0.072	1.20	5.97	1.00	3.80	11.99	1.71	16.72	30.42
Header Wheat/Sorghum	22' Rigid	265 hp	19,800	300	8	0.116	1.92	7.09	0.57	5.59	15.18	0.97	24.63	40.80
Header Wheat/Sorghum	25' Rigid	325 hp	41,800	300	8	0.102	1.68	7.65	1.06	4.98	15.39	1.81	21.91	39.12
Header Wheat/Sorghum	30' Rigid	325 hp	55,100	300	8	0.085	1.40	6.38	1.17	4.15	13.11	1.99	18.25	33.36
Land Plane	50'x16'	MFWD 190	13,000	200	10	0.151	2.50	6.64	0.39	1.02	10.57	1.18	7.23	18.99
Levee Pull & Seed	8 Blade	MFWD 170	12,000	100	10	0.003	0.05	0.13	0.00	0.02	0.22	0.05	0.14	0.42
Levee Pull (1m/80a)	8 blade	MFWD 170	7,560	100	10	0.003	0.05	0.13	0.00	0.02	0.22	0.03	0.14	0.40
Levee Splitter (1/80)	32"	MFWD 150	9,220	100	10	0.004	0.06	0.14	0.00	0.02	0.24	0.04	0.14	0.42
Module Builder	4R-38(250)	MFWD 190	34,700	200	10	0.257	6.59	11.29	2.23	1.74	21.86	5.20	12.30	39.37
Module Builder	4R-38(350)	MFWD 190	34,700	200	10	0.257	6.59	11.29	2.23	1.74	21.86	5.20	12.30	39.37
Module Builder	4R2x1(350)	MFWD 190	34,700	200	10	0.172	4.41	7.54	1.49	1.16	14.61	3.47	8.22	26.31
Module Builder	6R-30(355)	MFWD 190	34,700	200	10	0.218	5.58	9.56	1.89	1.47	18.51	4.40	10.41	33.33
Module Builder	6R-38(355)	MFWD 190	34,700	200	10	0.172	4.41	7.54	1.49	1.16	14.61	3.47	8.22	26.31
NT Grain Drill	10'	2WD 130	37,700	150	8	0.235	6.03	7.06	3.33	0.86	17.29	7.27	5.89	30.47
NT Grain Drill	12'	2WD 130	50,200	150	8	0.163	4.19	4.90	3.08	0.60	12.78	6.72	4.09	23.60
NT Grain Drill	15'	MFWD 150	63,300	150	8	0.130	3.35	4.52	3.10	0.64	11.63	6.78	4.40	22.82
NT Grain Drill	20'	MFWD 170	81,200	150	8	0.098	2.51	3.84	2.99	0.57	9.92	6.52	4.03	20.49
NT Grain Drill	24'	MFWD 190	111,300	150	8	0.081	2.09	3.58	3.41	0.55	9.65	7.45	3.90	21.01
NT Grain Drill	30'	MFWD 225	110,200	150	8	0.065	1.67	3.39	2.70	0.56	8.34	5.90	3.99	18.24
NT Grain Drill & Pre	10'	2WD 130	43,000	150	8	0.211	5.41	6.34	3.41	0.77	15.94	7.44	5.29	28.68
NT Grain Drill & Pre	12'	2WD 130	55,600	150	8	0.176	4.51	5.28	3.67	0.64	14.12	8.02	4.41	26.55
NT Grain Drill & Pre	15'	MFWD 150	68,700	150	8	0.141	3.61	4.87	3.63	0.69	12.81	7.93	4.74	25.49
NT Grain Drill & Pre	20'	MFWD 170	86,500	150	8	0.105	2.70	4.14	3.43	0.61	10.89	7.49	4.34	22.73
NT Grain Drill & Pre	24'	MFWD 190	116,600	150	8	0.088	2.25	3.86	3.85	0.59	10.56	8.41	4.20	23.18
NT Grain Drill & Pre	30'	MFWD 225	115,500	150	8	0.070	1.80	3.65	3.05	0.60	9.12	6.66	4.30	20.09
NT Plant&Pre-Folding	8R-38	MFWD 170	67,800	150	8	0.083	2.14	3.27	2.12	0.48	8.02	4.64	3.43	16.10
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	107,000	150	8	0.055	1.42	2.18	2.23	0.32	6.16	4.87	2.28	13.32
NT Plant&Pre-Folding	12R-20	MFWD 190	82,800	150	8	0.105	2.70	4.63	3.28	0.71	11.33	7.16	5.04	23.55
NT Plant&Pre-Folding	12R-30	MFWD 190	101,000	150	8	0.070	1.80	3.08	2.67	0.47	8.04	5.83	3.36	17.23
NT Plant&Pre-Folding	12R-38	MFWD 190	111,800	150	8	0.055	1.42	2.43	2.33	0.37	6.57	5.09	2.65	14.32
NT Plant&Pre-Folding	16R-30	MFWD 190	149,400	150	8	0.052	1.35	2.31	2.96	0.35	6.99	6.46	2.52	15.98
NT Plant&Pre-Folding	23R-15	MFWD 190	202,900	150	8	0.073	1.88	3.21	5.58	0.49	11.18	12.20	3.50	26.88
NT Plant&Pre-Folding	24R-20	MFWD 190	238,100	150	8	0.052	1.35	2.31	4.72	0.35	8.74	10.30	2.52	21.58
NT Plant&Pre-Folding	24R-30	MFWD 190	224,900	150	8	0.035	0.90	1.54	2.97	0.23	5.65	6.49	1.68	13.83
NT Plant&Pre-Folding	31R-15	MFWD 225	244,300	150	8	0.054	1.39	2.83	5.00	0.47	9.71	10.93	3.33	23.97
NT Plant&Pre-Folding	32R-15	MFWD 225	248,700	150	8	0.052	1.35	2.74	4.93	0.45	9.48	10.76	3.22	23.47
NT Plant&Pre-Rigid	4R-30	2WD 130	37,700	150	8	0.211	5.41	6.34	2.99	0.77	15.52	6.52	5.29	27.34
NT Plant&Pre-Rigid	4R-38	2WD 130	34,500	150	8	0.166	4.26	4.99	2.15	0.61	12.02	4.70	4.16	20.89
NT Plant&Pre-Rigid	6R-30	MFWD 150	47,400	150	8	0.141	3.61	4.87	2.50	0.69	11.69	5.47	4.74	21.90
NT Plant&Pre-Rigid	6R-38	MFWD 150	47,500	150	8	0.111	2.85	3.85	1.98	0.54	9.23	4.32	3.74	17.30
NT Plant&Pre-Rigid	8R-30	MFWD 170	60,300	150	8	0.105	2.70	4.14	2.39	0.61	9.86	5.22	4.34	19.42
NT Plant&Pre-Rigid	8R-38	MFWD 170	56,200	150	8	0.083	2.14	3.27	1.76	0.48	7.66	3.84	3.43	14.94
NT Plant&Pre-Rigid	11R-15	MFWD 170	67,300	150	8	0.143	3.68	5.64	3.63	0.83	13.79	7.92	5.91	27.63
NT Plant&Pre-Rigid	11R-20	MFWD 170	68,500	150	8	0.115	2.95	4.53	2.96	0.67	11.13	6.48	4.75	22.36
NT Plant&Pre-Rigid	12R-20	MFWD 190	73,000	150	8	0.105	2.70	4.63	2.89	0.71	10.95	6.32	5.04	22.32
NT Plant&Pre-Rigid	12R-30	MFWD 190	86,600	150	8	0.070	1.80	3.08	2.28	0.47	7.66	4.99	3.36	16.02
NT Plant&Pre-Rigid	15R-15	MFWD 190	89,600	150	8	0.113	2.89	4.95	3.80	0.76	12.41	8.29	5.39	26.11
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	172,500	150	8	0.055	1.42	2.88	3.60	0.48	8.39	7.86	3.39	19.65
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	135,300	150	8	0.083	2.14	4.33	4.24	0.72	11.44	9.26	5.09	25.80
NT Plant-Folding	8R-38	MFWD 170	72,900	150	8	0.077	1.98	3.04	2.12	0.45	7.60	4.63	3.19	15.42
NT Plant-Folding	8R-38 2x1	MFWD 170	102,000	150	8	0.051	1.32	2.02	1.97	0.30	5.62	4.31	2.12	12.06
NT Plant-Folding	12R-20	MFWD 190	77,500	150	8	0.098	2.51	4.30	2.85	0.66	10.33	6.23	4.68	21.25
NT Plant-Folding	12R-30	MFWD 190	91,300	150	8	0.065	1.67	2.86	2.24	0.44	7.22	4.89	3.12	15.24
NT Plant-Folding	12R-38	MFWD 190	102,000	150	8	0.051	1.32	2.26	1.97	0.34	5.91	4.31	2.46	12.69
NT Plant-Folding	16R-30	MFWD 190	139,600	150	8	0.049	1.25	2.15	2.57	0.33	6.31	5.61	2.34	14.26
NT Plant-Folding	23R-15	MFWD 190	193,000	150	8	0.068	1.74	2.98	4.93	0.46	10.13	10.77	3.25	24.16
NT Plant-Folding	24R-20	MFWD 190	228,000	150	8	0.049	1.25	2.15	4.19	0.33	7.93	9.16	2.34	19.45
NT Plant-Folding	24R-30	MFWD 190	208,000	150	8	0.032	0.83	1.43	2.55	0.22	5.04	5.57	1.56	12.18
NT Plant-Folding	31R-15	MFWD 225	234,500	150	8	0.050	1.29	2.63	4.46	0.43	8.83	9.74	3.09	21.67
NT Plant-Folding	32R-15	MFWD 225	239,000	150	8	0.049	1.25	2.54	4.40	0.42	8.63	9.60	2.99	21.23
NT Plant-Rigid	4R-30	2WD 130	31,900	150	8	0.196	5.02	5.88	2.34	0.72	13.98	5.12	4.91	24.03
NT Plant-Rigid	4R-38	2WD 130	28,800	150	8	0.154	3.95	4.63	1.67	0.56	10.83	3.64	3.87	18.35
NT Plant-Rigid	6R-30	MFWD 150	41,600	150	8	0.130	3.35	4.52	2.04	0.64	10.57	4.45	4.40	19.43
NT Plant-Rigid	6R-38	MFWD 150	41,800	150	8	0.103	2.64	3.57	1.62	0.51	8.35	3.53	3.47	15.36
NT Plant-Rigid	8R-30	MFWD 170	54,600	150	8	0.098	2.51	3.84	2.01	0.57	8.94	4.38	4.03	17.37
NT Plant-Rigid	8R-38	MFWD 170	50,500	150	8	0.077	1.98	3.04	1.47	0.45	6.95	3.20	3.19	13.35
NT Plant-Rigid	11R-15	MFWD 170	61,600	150	8	0.133	3.42	5.23	3.08	0.77	12.52	6.73	5.49	24.75
NT Plant-Rigid	11R-20	MFWD 170	62,700	150	8	0.107	2.74	4.20	2.52	0.62	10.10	5.50	4.41	20.02

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2023 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
NT Plant-Rigid	12R-20	MFWD 190	67,300	150	8	0.098	2.51	4.30	2.47	0.66	9.95	5.41	4.68	20.05
NT Plant-Rigid	12R-30	MFWD 190	76,800	150	8	0.065	1.67	2.86	1.88	0.44	6.87	4.11	3.12	14.11
NT Plant-Rigid	15R-15	MFWD 190	79,900	150	8	0.105	2.68	4.60	3.14	0.70	11.14	6.87	5.01	23.03
NT Plant-TwinRow	12R-30/40	MFWD 225	163,000	150	8	0.051	1.32	2.68	3.15	0.44	7.61	6.89	3.15	17.66
NT Plant-TwinRow	8R-30/40	MFWD 225	130,000	150	8	0.077	1.98	4.02	3.78	0.66	10.47	8.26	4.73	23.46
Peanut Cond. & Lifter	6-Row	MFWD 190	15,200	300	20	0.100	1.65	4.38	0.25	0.67	6.96	0.44	4.77	12.18
Peanut Conditioner	6-Row	MFWD 190	21,600	300	20	0.100	1.65	4.38	0.43	0.67	7.14	0.58	4.77	12.50
Peanut Dig/Invertor	4R-30	MFWD 190	37,900	300	15	0.235	3.90	10.33	2.22	1.59	18.05	3.07	11.25	32.37
Peanut Dig/Invertor	4R-38	MFWD 190	37,900	300	15	0.186	3.08	8.15	1.75	1.25	14.25	2.42	8.88	25.56
Peanut Dig/Invertor	6R-38	MFWD 190	51,100	300	15	0.124	2.05	5.43	1.11	0.83	9.43	2.17	5.92	17.53
Peanut Dump Cart	6-Row	MFWD 190	67,400	300	20	0.310	5.12	13.58	1.21	2.09	22.02	6.00	14.79	42.82
Peanut Harvester	4R-30	MFWD 225	171,000	300	20	0.849	14.05	44.10	8.23	7.33	73.72	39.40	51.83	164.97
Peanut Harvester	4R-38	MFWD 225	171,000	300	20	0.934	15.45	48.48	9.05	8.06	81.06	44.63	56.99	182.70
Peanut Harvester	6R-38	MFWD 225	190,000	300	20	0.625	10.33	32.42	5.73	5.39	53.89	33.16	38.11	125.18
Peanut Lifter	6-Row	MFWD 225	9,220	300	20	0.100	1.65	5.18	0.19	0.86	7.89	0.24	6.09	14.24
Peanut Plt&Pre Fold.	12R-38	MFWD 190	99,500	150	8	0.080	2.05	3.52	3.00	0.54	9.12	6.55	3.83	19.51
Peanut Plt&Pre Rigid	8R-30	MFWD 190	52,200	150	8	0.152	3.91	6.69	2.99	1.03	14.62	6.52	7.29	28.44
Peanut Plt&Pre Rigid	8R-38	MFWD 190	48,000	150	8	0.120	3.09	5.29	2.17	0.81	11.37	4.74	5.76	21.88
Peanut Ptl&PreTwin	8R-30/40	MFWD 190	127,000	150	8	0.120	3.09	5.29	5.75	0.81	14.94	12.55	5.76	33.27
Pipe Spool 160ac	1/4m roll	2WD 130	6,480	15	12	0.003	0.10	0.09	0.01	0.01	0.22	0.14	0.07	0.44
Pipe Trailer 1m/160a	30'	2WD 130	2,700	100	15	0.003	0.19	0.11	0.00	0.01	0.32	0.01	0.09	0.43
Plant & Pre-Folding	8R-38	MFWD 170	70,400	150	8	0.080	2.05	3.14	2.11	0.46	7.78	4.62	3.29	15.71
Plant & Pre-Folding	8R-38 2x1	MFWD 170	99,500	150	8	0.053	1.36	2.09	1.99	0.31	5.76	4.35	2.19	12.31
Plant & Pre-Folding	12R-20	MFWD 190	70,600	150	8	0.101	2.59	4.44	2.68	0.68	10.42	5.86	4.84	21.13
Plant & Pre-Folding	12R-30	MFWD 190	88,800	150	8	0.067	1.73	2.96	2.25	0.45	7.40	4.92	3.23	15.56
Plant & Pre-Folding	12R-38	MFWD 190	99,500	150	8	0.053	1.36	2.34	1.99	0.36	6.06	4.35	2.55	12.96
Plant & Pre-Folding	16R-30	MFWD 190	133,000	150	8	0.050	1.29	2.22	2.53	0.34	6.39	5.52	2.42	14.35
Plant & Pre-Folding	23R-15	MFWD 190	179,000	150	8	0.070	1.80	3.08	4.73	0.47	10.10	10.33	3.36	23.80
Plant & Pre-Folding	24R-20	MFWD 190	214,000	150	8	0.050	1.29	2.22	4.07	0.34	7.94	8.89	2.42	19.25
Plant & Pre-Folding	24R-30	MFWD 190	200,000	150	8	0.033	0.86	1.48	2.53	0.22	5.11	5.54	1.61	12.27
Plant & Pre-Folding	31R-15	MFWD 225	213,000	150	8	0.052	1.34	2.72	4.19	0.45	8.70	9.14	3.20	21.05
Plant & Pre-Folding	32R-15	MFWD 225	216,000	150	8	0.050	1.29	2.63	4.11	0.43	8.48	8.97	3.09	20.55
Plant & Pre-Rigid	4R-30	2WD 130	33,700	150	8	0.203	5.19	6.08	2.56	0.74	14.59	5.60	5.08	25.28
Plant & Pre-Rigid	4R-38	2WD 130	30,400	150	8	0.159	4.09	4.79	1.82	0.58	11.29	3.97	4.00	19.27
Plant & Pre-Rigid	6R-30	MFWD 150	41,200	150	8	0.135	3.46	4.68	2.09	0.66	10.90	4.56	4.55	20.02
Plant & Pre-Rigid	6R-38	MFWD 150	41,400	150	8	0.106	2.73	3.69	1.65	0.52	8.62	3.62	3.59	15.83
Plant & Pre-Rigid	8R-30	MFWD 170	52,200	150	8	0.101	2.59	3.98	1.98	0.59	9.15	4.33	4.17	17.67
Plant & Pre-Rigid	8R-38	MFWD 170	48,000	150	8	0.080	2.05	3.14	1.44	0.46	7.11	3.15	3.29	13.56
Plant & Pre-Rigid	11R-15	MFWD 170	56,100	150	8	0.148	3.79	5.81	3.11	0.86	13.58	6.80	6.09	26.48
Plant & Pre-Rigid	11R-20	MFWD 170	57,200	150	8	0.110	2.84	4.35	2.38	0.64	10.21	5.19	4.56	19.97
Plant & Pre-Rigid	12R-20	MFWD 190	60,800	150	8	0.101	2.59	4.44	2.31	0.68	10.04	5.05	4.84	19.94
Plant & Pre-Rigid	12R-30	MFWD 190	74,400	150	8	0.067	1.73	2.96	1.88	0.45	7.04	4.12	3.23	14.39
Plant & Pre-Rigid	15R-15	MFWD 190	74,300	150	8	0.108	2.78	4.75	3.02	0.73	11.29	6.60	5.18	23.08
Plant & Pre-TwinRow	12R-30/40	MFWD 225	160,200	150	8	0.053	1.36	2.77	3.21	0.46	7.81	7.00	3.25	18.08
Plant & Pre-TwinRow	8R-30/40	MFWD 225	127,000	150	8	0.080	2.05	4.16	3.82	0.69	10.73	8.34	4.89	23.97
Plant - Folding	8R-38	MFWD 170	64,700	150	8	0.074	1.90	2.92	1.80	0.43	7.07	3.94	3.06	14.08
Plant - Folding	8R-38 2x1	MFWD 170	89,800	150	8	0.049	1.27	1.94	1.67	0.28	5.17	3.64	2.03	10.86
Plant - Folding	12R-20	MFWD 190	65,200	150	8	0.094	2.41	4.13	2.30	0.63	9.48	5.03	4.50	19.02
Plant - Folding	12R-30	MFWD 190	79,000	150	8	0.062	1.60	2.75	1.86	0.42	6.64	4.06	3.00	13.71
Plant - Folding	12R-38	MFWD 190	89,800	150	8	0.049	1.27	2.17	1.67	0.33	5.45	3.64	2.36	11.46
Plant - Folding	16R-30	MFWD 190	123,000	150	8	0.047	1.20	2.06	2.17	0.31	5.76	4.74	2.24	12.76
Plant - Folding	23R-15	MFWD 190	170,000	150	8	0.065	1.67	2.86	4.17	0.44	9.16	9.11	3.12	21.40
Plant - Folding	24R-20	MFWD 190	204,000	150	8	0.047	1.20	2.06	3.60	0.31	7.19	7.87	2.24	17.31
Plant - Folding	24R-30	MFWD 190	184,000	150	8	0.031	0.80	1.37	2.16	0.21	4.56	4.73	1.50	10.79
Plant - Folding	31R-15	MFWD 225	203,000	150	8	0.048	1.24	2.52	3.70	0.42	7.90	8.09	2.97	18.97
Plant - Folding	32R-15	MFWD 225	206,000	150	8	0.047	1.20	2.44	3.64	0.40	7.70	7.94	2.87	18.52
Plant - Rigid	4R-30	2WD 130	27,900	150	8	0.188	4.82	5.65	1.97	0.69	13.14	4.30	4.71	22.17
Plant - Rigid	4R-38	2WD 130	24,700	150	8	0.148	3.80	4.45	1.37	0.54	10.17	3.00	3.71	16.89
Plant - Rigid	6R-30	MFWD 150	35,500	150	8	0.125	3.21	4.34	1.67	0.62	9.86	3.65	4.22	17.74
Plant - Rigid	6R-38	MFWD 150	35,700	150	8	0.099	2.54	3.43	1.32	0.49	7.79	2.90	3.33	14.03
Plant - Rigid	8R-30	MFWD 170	46,500	150	8	0.094	2.41	3.69	1.64	0.54	8.30	3.58	3.87	15.76
Plant - Rigid	8R-38	MFWD 170	42,300	150	8	0.074	1.90	2.92	1.18	0.43	6.44	2.58	3.06	12.08
Plant - Rigid	11R-15	MFWD 170	50,400	150	8	0.137	3.52	5.39	2.60	0.80	12.32	5.67	5.65	23.65
Plant - Rigid	11R-20	MFWD 170	51,500	150	8	0.103	2.63	4.03	1.98	0.59	9.26	4.34	4.23	17.84
Plant - Rigid	12R-20	MFWD 190	55,000	150	8	0.094	2.41	4.13	1.94	0.63	9.12	4.24	4.50	17.87
Plant - Rigid	12R-30	MFWD 190	64,600	150	8	0.062	1.60	2.75	1.52	0.42	6.31	3.32	3.00	12.63
Plant - Rigid	15R-15	2WD 150	64,600	150	8	0.094	2.41	3.26	2.28	0.38	8.34	4.98	2.63	15.96
Plant - TwinRow	12R-30/40	MFWD 225	150,000	150	8	0.049	1.27	2.57	2.79	0.42	7.06	6.09	3.02	16.18
Plant - TwinRow	8R-30/40	MFWD 225	121,000	150	8	0.074	1.90	3.86	3.38	0.64	9.79	7.38	4.54	21.72
Roller/Cultipacker	12'	2WD 130	7,470	300	12	0.124	2.05	3.73	0.21	0.45	6.46	0.34	3.11	9.92
Roller/Cultipacker	20'	MFWD 150	13,400	300	12	0.074	1.23	2.58	0.23	0.36	4.42	0.37	2.51	7.30
Roller/Cultipacker	30'	MFWD 170	20,600	300	12	0.049	0.82	1.95	0.24	0.28	3.30	0.37	2.04	5.73
Roller/Cultipacker	38'	MFWD 225	26,300	300	12	0.039	0.65	2.03	0.24	0.33	3.27	0.38	2.39	6.05
Roller/Stubble	20'	2WD 50	15,600	300	12	0.074	1.23	0.86	0.27	0.05	2.42	0.43	0.38	3.24
Roller/Stubble	32'	MFWD 225	23,400	300	12	0.046	0.77	2.42	0.25	0.40	3.85	0.40	2.84	7.10
Rotary Cutter	7'	MFWD 130	0	185	10	0.168	2.78	5.04	0.00	0.70	8.53	0.00	4.77	13.30
Rotary Cutter	12'	2WD 150	20,200	185	10	0.098	1.62	3.39	1.60	0.40	7.03	1.28	2.74	11.06
Rotary Cutter-Flex	15'	MFWD 150	28,700	185	10	0.078	1.29	2.71	1.82	0.38	6.23	1.46	2.64	10.33
Rotary Cutter-Flex	20'	MFWD 150	41,400	185	10	0.058	0.97	2.03	1.97	0.29	5.28	1.58	1.98	8.84
Row Cond & Inc-Fold.	26'	MFWD 190	37,600	100	10	0.063	1.33	2.78	0.59	0.42	5.14	2.86	3.02	11.03

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2023 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total Imp.	P.U. Direct	--Fixed-- Imp.	P.U. Total Cost	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Row Cond & Inc-Fold.	38'	MFWD 225	49,800	100	10	0.043	0.91	2.25	0.54	0.37	4.08	2.59	2.64	9.32
Row Cond & Inc-Rigid	13'	2WD 130	18,700	100	10	0.126	2.67	3.80	0.59	0.46	7.53	2.84	3.17	13.56
Row Cond & Inc-Rigid	21'	2WD 170	26,900	100	10	0.078	1.65	3.08	0.52	0.29	5.55	2.53	2.06	10.15
Row Cond & Inc-Rigid	26'	MFWD 190	29,300	100	10	0.026	0.56	1.16	0.19	0.17	2.10	0.93	1.27	4.30
Row Cond Folding	26'	MFWD 225	31,900	100	10	0.059	0.98	3.09	0.47	0.51	5.07	2.28	3.64	11.00
Row Cond Folding	38'	MFWD 225	40,100	100	10	0.040	0.67	2.12	0.40	0.35	3.55	1.96	2.49	8.01
Row Cond Rigid	13'	2WD 130	12,900	100	10	0.119	1.97	3.58	0.38	0.43	6.38	1.84	2.98	11.21
Row Cond Rigid	21'	2WD 170	21,200	100	10	0.073	1.22	2.89	0.39	0.27	4.78	1.87	1.94	8.61
Row Cond Rigid	26'	MFWD 190	23,600	100	10	0.059	0.98	2.61	0.35	0.40	4.36	1.69	2.85	8.90
Row Cond./Roll-Fol	30'	MFWD 190	69,000	160	10	0.062	1.03	2.73	1.07	0.42	5.27	3.23	2.98	11.48
Row Cond./Roll-Fold.	26'	MFWD 190	38,000	160	10	0.072	1.19	3.15	0.68	0.48	5.52	2.05	3.44	11.02
Row Cond./Roll-Fold.	40'	MFWD 225	57,100	160	10	0.046	0.77	2.43	0.66	0.40	4.28	2.00	2.85	9.14
Row Cond./Roll-Rig	21'	MFWD 190	38,400	160	10	0.089	1.47	3.91	0.85	0.60	6.84	2.56	4.26	13.68
Row Cond./Roll-Rig	26'	MFWD 190	42,300	160	10	0.072	1.19	3.15	0.76	0.48	5.60	2.28	3.44	11.33
Spin Spreader	5 ton	MFWD 190	14,500	100	8	0.042	1.07	1.84	0.34	0.28	3.54	0.77	2.00	6.33
Spray (ATV Ropewick)	75"	800 CC	720	200	8	0.260	5.48	0.58	0.08	0.49	6.65	0.11	2.18	8.95
Spray (ATV)	20'	800 CC	1,440	200	8	0.084	1.78	0.18	0.05	0.16	2.19	0.07	0.70	2.97
Spray (Band)	27' Fold	MFWD 170	5,700	200	8	0.062	1.32	2.45	0.16	0.36	4.30	0.22	2.57	7.11
Spray (Band)	40' Fold	MFWD 170	9,740	200	8	0.042	0.89	1.65	0.19	0.24	2.98	0.26	1.73	4.99
Spray (Band)	50' Fold	MFWD 170	9,590	200	8	0.033	0.71	1.32	0.15	0.19	2.38	0.20	1.39	3.98
Spray (Band)	60' Fold	MFWD 170	16,700	200	8	0.028	0.59	1.10	0.22	0.16	2.08	0.30	1.15	3.54
Spray (Bcast/HB)	13' Rigid	MFWD 150	8,700	200	8	0.130	2.74	4.50	0.53	0.64	8.41	0.72	4.37	13.51
Spray (Bcast/HB)	20' Rigid	MFWD 150	10,200	200	8	0.084	1.78	2.92	0.40	0.41	5.53	0.55	2.84	8.92
Spray (Bcast/HB)	27' Fold	MFWD 170	14,700	200	8	0.062	1.32	2.45	0.43	0.36	4.57	0.58	2.57	7.73
Spray (Bcast/HB)	27' Rigid	MFWD 170	14,800	200	8	0.062	1.32	2.45	0.43	0.36	4.57	0.59	2.57	7.74
Spray (Bcast/HB)	30' Fold	MFWD 170	19,900	200	8	0.056	1.18	2.21	0.52	0.32	4.25	0.71	2.31	7.28
Spray (Bcast/HB)	40' Fold	MFWD 170	21,500	200	8	0.042	0.89	1.65	0.42	0.24	3.22	0.58	1.73	5.54
Spray (Broadcast)	27'	MFWD 170	5,720	200	8	0.062	1.32	2.45	0.16	0.36	4.31	0.22	2.57	7.11
Spray (Broadcast)	40'	MFWD 170	9,740	200	8	0.042	0.89	1.65	0.19	0.24	2.98	0.26	1.73	4.99
Spray (Broadcast)	50'	MFWD 170	9,600	200	8	0.033	0.71	1.32	0.15	0.19	2.38	0.20	1.39	3.98
Spray (Broadcast)	60'	MFWD 170	16,700	200	8	0.028	0.59	1.10	0.22	0.16	2.08	0.30	1.15	3.54
Spray (Direct/Hood)	8R-30	MFWD 170	20,700	200	8	0.084	1.78	3.31	0.82	0.49	6.41	1.11	3.47	11.00
Spray (Direct/Hood)	8R-38	MFWD 170	21,500	200	8	0.066	1.40	2.62	0.67	0.38	5.09	0.91	2.74	8.76
Spray (Direct/Hood)	12R-30	MFWD 170	28,200	200	8	0.056	1.18	2.21	0.74	0.32	4.47	1.01	2.31	7.80
Spray (Direct/Hood)	12R-38	MFWD 170	28,600	200	8	0.044	0.93	1.74	0.59	0.25	3.53	0.81	1.83	6.18
Spray (Direct/Layby)	8R-30	MFWD 170	19,500	200	8	0.084	1.78	3.31	0.77	0.49	6.36	1.05	3.47	10.89
Spray (Direct/Layby)	8R-38	MFWD 170	19,500	200	8	0.066	1.40	2.62	0.61	0.38	5.03	0.83	2.74	8.61
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	29,500	200	8	0.044	0.93	1.74	0.61	0.25	3.55	0.83	1.83	6.22
Spray (Direct/Layby)	12R-30	MFWD 170	29,500	200	8	0.056	1.18	2.21	0.78	0.32	4.50	1.06	2.31	7.88
Spray (Direct/Layby)	12R-38	MFWD 170	29,500	200	8	0.044	0.93	1.74	0.61	0.25	3.55	0.83	1.83	6.22
Spray (Direct/Layby)	16R-20/30	MFWD 225	34,600	200	8	0.062	1.32	3.25	1.01	0.54	6.12	1.38	3.82	11.33
Spray (Levee Leaper)	50'	MFWD 225	16,900	200	8	0.033	0.71	1.75	0.26	0.29	3.02	0.36	2.06	5.45
Spray (Pull Type)	60'	MFWD 225	62,600	200	8	0.028	0.59	1.46	0.82	0.24	3.12	1.12	1.72	5.97
Spray (Pull Type)	80'	MFWD 225	61,500	200	8	0.021	0.44	1.09	0.60	0.18	2.33	0.83	1.28	4.45
Spray (Pull Type)	90'	MFWD 225	62,400	200	8	0.018	0.39	0.97	0.54	0.16	2.08	0.74	1.14	3.97
Spray (Pull Type)	120'	MFWD 225	106,200	200	8	0.014	0.29	0.73	0.70	0.12	1.85	0.95	0.85	3.66
Spray (Ropewick)	20'	MFWD 190	4,110	200	8	0.084	1.78	3.70	0.16	0.57	6.22	0.22	4.03	10.48
Spray (Spot)	27'	MFWD 170	5,720	200	8	0.062	1.32	2.45	0.16	0.36	4.31	0.22	2.57	7.11
Spray (Spot)	40'	MFWD 170	9,740	200	8	0.042	0.89	1.65	0.19	0.24	2.98	0.26	1.73	4.99
Spray (Spot)	50'	MFWD 170	9,600	200	8	0.033	0.71	1.32	0.15	0.19	2.38	0.20	1.39	3.98
Spray (Spot)	60'	MFWD 225	16,700	200	8	0.028	0.59	1.46	0.22	0.24	2.52	0.30	1.72	4.54
Stalk Shredder	14'	MFWD 150	36,300	200	10	0.117	1.94	4.07	3.74	0.58	10.35	2.56	3.96	16.87
Stalk Shredder Flex	20'	MFWD 150	33,100	200	10	0.082	1.36	2.85	2.38	0.40	7.01	1.63	2.77	11.42
Stalk Shredder-Flail	12'	MFWD 150	26,200	200	10	0.137	2.27	4.75	3.15	0.67	10.86	2.15	4.62	17.64
Stalk Shredder-Flail	15'	MFWD 150	31,000	200	10	0.110	1.81	3.80	2.98	0.54	9.15	2.04	3.69	14.89
Stalk Shredder-Flail	18'	MFWD 150	47,300	200	10	0.091	1.51	3.17	3.79	0.45	8.93	2.59	3.08	14.61
Stalk Shredder-Flail	20'	MFWD 150	40,200	200	10	0.082	1.36	2.85	2.90	0.40	7.52	1.98	2.77	12.28
Stalk Shredder-Flail	25'	MFWD 150	66,400	200	10	0.066	1.09	2.28	3.83	0.32	7.53	2.62	2.21	12.38
Strip Till	8R-38	MFWD 225	58,200	150	10	0.061	1.01	3.19	1.55	0.53	6.30	2.86	3.75	12.92
Strip Till	12R-30	MFWD 225	98,900	150	10	0.061	1.01	3.19	2.64	0.53	7.38	4.87	3.75	16.01
Strip Till	12R-40	MFWD 225	99,800	150	10	0.046	0.76	2.39	1.99	0.39	5.56	3.68	2.81	12.06
Subsoiler	3 shank	MFWD 190	5,400	100	15	0.204	3.37	8.95	0.36	1.37	14.07	1.07	9.75	24.90
Subsoiler	4 shank	MFWD 225	12,200	100	15	0.153	2.54	7.97	0.62	1.32	12.46	1.81	9.36	23.65
Subsoiler	5 shank	MFWD 225	17,100	100	15	0.122	2.02	6.34	0.69	1.05	10.12	2.03	7.46	19.61
Subsoiler low-till	6 shank	MFWD 225	16,400	100	15	0.102	1.68	5.30	0.55	0.88	8.43	1.62	6.23	16.28
Subsoiler low-till	8 shank	MFWD 225	24,300	100	15	0.076	1.26	3.97	0.61	0.66	6.51	1.80	4.66	12.98

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, 2023

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Artisan	oz	0.23
Agri-Dex	pt	5.28	Avaris	oz	1.68
AMS SuperMax	pt	3.81	Avicta 500 Soybean	oz	2.14
Class Act NG	pt	4.75	Bravo Weather Stick	pt	6.32
Crop Oil Conc. (Pet.)	pt	2.86	Captan 50 WP	lb	6.13
Crop Oil Conc. (Veg.)	pt	2.90	Convoy	oz	1.13
Dyne-A-Pak	pt	6.01	Cotton Seed Trt.	acre	20.00
Fire-Zone	pt	2.42	CruiserMaxx Vibrance	oz	7.63
Herbimax	pt	2.75	Elatus	oz	3.81
Induce	pt	5.00	Flint Extra	oz	9.41
MSO	pt	1.34	Headline EC	oz	4.46
Penetrator Plus	pt	2.32	Miravis Top	oz	5.31
Surfactant	pt	3.30	Prior Xemium	oz	2.17
CLEANING			Propimax EC	pt	12.50
Cleaning Peanuts	ton	18.00	Prosaro	oz	1.78
CROP CONSULTANT			Provost Optimum	oz	2.17
Corn Consultant	acre	6.00	Provost Silver	oz	1.41
Cotton Consultant	acre	8.00	Quadris	oz	6.73
Peanut Consultant	acre	9.25	Quadris Top	oz	3.05
Rice Consultant	acre	8.00	Quadris Top SBX	oz	3.35
Sorghum Consultant	acre	6.00	Quilt	pt	18.23
Soybeans Consultant	acre	6.50	Quilt XCEL	pt	25.08
Wheat Consultant	acre	5.50	Stratego	pt	23.93
CUSTOM FERTILIZE			Stratego YLD	oz	4.02
App Fert by Air	cwt	8.00	Tilt 3.6 EC	oz	1.00
App Fert by Air (Mi)	appl	8.00	Tilt/ Bravo SE	oz	0.72
Custom Apply Fert	acre	7.50	Trivapro	oz	1.43
CUSTOM LIME			GINNING		
Lime (Spread)	ton	58.00	Gin & Haul	lb	0.11
CUSTOM PLANT			GROWTH REGULATORS		
Custom Plant	acre	7.50	Mepex	oz	0.09
Custom Plant Air	cwt	8.00	Mepichlor 4.2%	oz	0.04
CUSTOM SPRAY			Mepiquat	oz	0.22
App by Air ( 3 gal)	appl	6.40	Mepstar 6	oz	0.09
App by Air ( 5 gal)	appl	7.60	Palisade	oz	1.41
App by Air (10 gal)	appl	9.70	Pentia	oz	0.41
Custom Spray Ground	acre	7.00	Pix WSB	oz	1.26
DRYING			Stance	oz	1.40
Dry Corn	bu	0.19	Veto	oz	0.06
Dry Grain Sorghum	cwt	0.25	HARVEST AIDS		
Dry Peanuts	ton	24.00	Adios	oz	0.96
Dry Rice	bu	0.40	Boll Buster	oz	0.34
ERADICATION FEE			Def/Folex	pt	12.50
Eradication	acre	1.00	Defol 5	gal	8.61
FERTILIZERS			Display	oz	10.59
Agrotain Ultra	pt	20.99	Ethephon 6E	pt	3.56
Amm Sulfate (21% N)	cwt	50.00	Finish 6	pt	10.93
Boron Plus	pt	4.31	Folex 6EC	pt	12.50
DAP	cwt	55.40	Freefall SC	oz	1.52
Fert 10-34-0	cwt	45.99	Ginstar EC	pt	29.72
Fert 10-34-0	gal	5.36	Gramoxone SL	oz	0.37
Fert 11-37-0	cwt	50.15	Sharpen	oz	6.72
Fert 41-0-0-4	cwt	37.06	Sodium Chlorate 5L	gal	8.61
Lime	ton	48.00	SuperBoll	oz	0.32
NBPT	pt	18.00	Thidiazuron 4lb	oz	1.52
Phosphorus (46% P2O5)	cwt	50.00	Tribufos 6lb	pt	12.50
Potash (60% K2O)	cwt	46.60	Vacate	oz	1.39
Sulfur Plus	pt	2.62	HAULING		
UAN (32% N)	cwt	38.90	Haul Corn	bu	0.23
UAN (32%)	gal	4.30	Haul Peanuts	ton	14.50
UAN + Sulfur (28%)	cwt	39.65	Haul Rice	bu	0.35
UAN + Sulfur (28%)	gal	4.41	Haul Sorghum	bu	0.25
Urea, Solid (46% N)	cwt	41.58	Haul Soybeans	bu	0.27
Zinc Plus	pt	3.68	Haul Wheat	bu	0.26
FUNGICIDES			HERBICIDES		
Abound	oz	1.88	2,4-D Amine 4	pt	3.33
Alfa Guard	lb	1.41	2,4-D Ester	pt	5.03
Allegiance Flowable	oz	3.66	AAtrex 4L	pt	2.62
Ameristar Top	oz	2.41	Accent Q	oz	20.47
Approach Prima	pt	33.33	Acuron	oz	0.54
Apron Maxx RTA	oz	1.00			

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2023 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Aim	oz	4.90	Halex GT	pt	10.50
Anthem Flex	oz	5.57	Halomax	oz	21.11
Anthem Maxx	oz	5.26	Harmony Extra SG	oz	10.34
Armezon Pro	oz	1.03	Helmet	oz	0.48
Atrazine 4L	pt	3.00	Huskie	oz	0.96
Atrazine 90DF	lb	4.50	Impact	oz	13.44
Authority First	lb	40.00	Intimidator	oz	0.64
Authority Elite	pt	11.92	Leadoff	oz	6.79
Authority Maxx	lb	68.82	League	oz	4.19
Authority MTZ	lb	19.75	Lexar	pt	6.76
Avatar	pt	9.62	Liberty 280	oz	0.76
Avenger	pt	15.00	Loyant	oz	2.29
Axial XL	oz	1.71	Makaze	oz	0.21
Axiom	oz	2.10	Metolachlor	pt	7.89
Banvel	pt	4.81	Metribuzin 4L	pt	21.13
Barrage	pt	4.13	Metribuzin 75	lb	14.80
Basagran	pt	5.43	MSMA	pt	6.35
Boundary	pt	11.75	Newpath	oz	4.15
Brake	oz	1.48	Obey	oz	1.08
Broadaxe	pt	14.17	Osprey	oz	3.58
Broadhead	lb	58.21	Outlook	pt	14.77
Bucaneer Plus	pt	9.81	Panther Pro	oz	6.61
Bucril	pt	4.28	Parallel	pt	8.32
Butyrac 200 (2,4-DB)	pt	4.06	Paraquat	oz	0.23
Cadre	oz	1.97	Parazone 3SL	oz	0.18
Canopy	oz	3.25	Permit	oz	20.07
Caparol	pt	4.97	Permit Plus	oz	22.22
Capreno	oz	4.49	PowerFlex	oz	7.21
Cinch	pt	14.18	Preface	oz	4.99
Cinch ATZ	pt	6.26	Prefix	pt	5.26
Clarity	pt	14.30	Provisia	oz	0.82
Classic	oz	18.50	Prowl 3.3 EC	pt	6.63
Clearpath	oz	4.24	Quelex	oz	11.30
Clethodim 2E	oz	0.53	RealmQ	oz	4.32
Clincher SF	oz	1.95	RebelEx	oz	2.00
Cobra	oz	1.22	Reflex	pt	7.34
Command 3ME	pt	18.00	Regiment	oz	45.96
Corvus	oz	5.30	Resicore	oz	0.60
Cotoran	pt	6.37	Resource	oz	2.03
Cotton Pro	pt	3.45	RiceBeaux	pt	6.25
Dicamba	pt	5.88	Riceshot	pt	4.68
Direx	pt	5.25	Ricestar HT	pt	26.01
Diuron	pt	3.47	Ringside	pt	5.63
Dual II Magnum	pt	11.60	Roundup Power Max	oz	0.46
Dual Magnum	pt	11.45	Roundup PowerMax	pt	7.33
Duet	pt	6.09	Roundup PowerMax ii	oz	0.27
Engenia	oz	0.83	Roundup Pro	pt	0.20
Enlist Duo	pt	8.60	Scepter 70 DG	oz	4.64
Enlist One	pt	6.77	Select Max	pt	13.86
Envive	oz	3.78	Sencor/Tricor.Metrib	lb	17.78
Envoke	oz	88.33	Sequence	pt	7.14
Facet L	pt	17.50	Sharpen	oz	6.72
Fierce	oz	7.75	Sinister	pt	13.77
Fierce XLT	oz	4.47	Sonic	oz	4.50
Finesse	oz	18.64	Stalwart	pt	3.82
Firestorm	pt	3.44	Stam 80 EDF	lb	9.45
First Rate	oz	37.79	Stam M4	qt	8.00
Flexstar	pt	9.90	Staple LX	oz	3.95
Flexstar GT	pt	6.77	Storm	pt	12.65
Fusilade DX	oz	1.19	Strada	oz	7.34
Gambit	oz	16.50	Strada Pro	oz	8.20
Glyphosate 3lbs a.e	pt	5.38	Strada XT2	oz	3.26
Glyphosate 3lbs a.e	oz	0.34	Superwham	qt	9.82
Goal 2XL	pt	8.75	Suprend	lb	13.52
Gramoxone SL 2.0	oz	0.37	SureStart II	oz	0.39
Grandstand R	pt	18.68	Surveil	oz	6.70
Grasp	oz	3.17	Synchrony XP	oz	13.00
Grasp Xtra	oz	1.61	Tempest	pt	19.50

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2023 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Touchdown Total	qt	10.21	Malathion 8E	pt	9.84
Treflan	pt	4.36	Mustang Max	oz	1.17
Trifluralin	pt	4.36	Nuprid 4F	oz	1.04
Triflurex	pt	3.47	Oberon	oz	3.10
Ultra Blazer	pt	7.50	Orthene 97	lb	11.66
Valor EZ	oz	5.23	Permethrin	oz	0.47
Valor SX	oz	3.20	Portal XLO	oz	0.74
Valor XLT	oz	3.64	Pounce 25WP	lb	19.96
Vamos	pt	6.49	Prevathon	oz	1.16
Verdict	oz	1.53	Python WDG	oz	20.19
Veritas	pt	7.49	Radiant	oz	5.77
Villain	pt	5.24	Sevin 4F	pt	8.55
Volunteer	pt	10.63	Sevin XLR Plus	qt	17.53
Warrant	pt	4.84	Sivanto Prime	oz	3.36
XtendiMax	oz	0.44	Tempest	oz	1.70
Zidua SC	oz	6.20	Tenchu SG	oz	1.13
Zidua WG	oz	8.76	Transform WG	oz	8.82
INOCULANT			Up-Cyde	oz	0.49
Inoculant -Soybean	acre	1.55	Warrior ZT	oz	3.13
Optimize LIFT	oz	0.15	Zeal	oz	20.93
INSECTICIDES			IRRIGATION SUPPLIES		
Abamectin .15EC	oz	0.30	Roll-Out Pipe	ft	0.24
Acephate 90%	lb	9.30	SEED/PLANTS		
Acephate 90SP	lb	6.62	Corn Seed BtRR	thous	3.75
Admire Pro	oz	1.76	Corn Seed Conv.	thous	2.36
Agri-Mek	oz	3.13	Corn Seed Op Leptra	thous	3.66
Asana .66 XL	oz	0.58	Corn Seed RR2	thous	2.93
Avenger	oz	0.28	Corn Seed VT2P	thous	2.62
Baythroid XL	oz	1.32	Cot. Seed B3XF/W3FE	thous	2.34
Belt	oz	6.80	Cotton Seed B3XF	thous	2.35
Besiege	oz	2.75	Cotton Seed GLB2	thous	1.59
Bidrin 8EC	oz	1.43	Cotton Seed W3FE	thous	2.32
Bifenthrin	oz	1.13	Cotton Seed W3RF	thous	1.31
Bifenture 2EC	oz	0.47	Peanut Seed	lb	0.84
Brigade EC	pt	20.27	Rice Conv Hyb Trt	lb	6.31
Capture LFR	oz	1.37	Rice Fullpage Hyb Tr	lb	7.68
Centric 40WG	oz	5.95	Rice Seed CF (Levees)	lb	1.14
Cypermethrin	oz	1.31	Rice Seed Clearfield	lb	1.14
Declare	oz	2.03	Rice Seed Conv.	lb	0.33
Diamond .83EC	oz	2.23	Rice Seed Cv (Levees)	lb	0.33
Dimethoate 4E	pt	6.45	Rice Seed CvH (Levee)	lb	1.93
Dimilin 2L	oz	1.63	Rice Seed FPH (Levee)	lb	7.68
Endigo	oz	2.10	Rice Seed Provisia	lb	1.30
Force 3G	lb	7.28	Rice Seed Trt/Insect	lbseed	0.29
Hero	oz	1.35	Sorghum Concept	lb	2.42
Imidacloprid 4F	oz	1.06	Sorghum Concept+ Po	lb	3.51
Imidan 70 WSB	oz	0.86	Soybean Enlist E3	lb	1.20
IncidentalPestTrt \$8	acre	8.00	Soybean Seed LL	lb	1.16
IncidentalPestTrt\$15	acre	15.00	Soybean Seed RR2	lb	1.16
IncidentalPestTrt\$22	acre	22.00	Soybean Seed RR2X	lb	1.34
IncidentalPestTrt\$30	acre	30.00	Wheat Seed Private	lb	0.38
Intrepid 2F	oz	2.06	SOIL TEST		
Intruder 70WSP	oz	1.13	Soil Test	acre	10.00
Lambda	oz	2.08	SURVEY & MARK LEVEES		
Lannate LV	pt	8.33	Survey & Mark Levees	acre	4.50
Macho	oz	1.28	Survey & Mark Levees	acre	4.50

Appendix Table 5. Estimated fuel prices  
and interest rates, Mississippi, 2023

ITEM NAME	UNIT	PRICE
dollars		
FUEL TYPES		
Diesel Fuel	gal	4.48
Gasoline	gal	3.19
INTEREST RATES		
Short-term	%	6.40
Intermediate-term	%	6.90

Appendix Table 6. Labor types, wage rates and unallocated labor  
Multipliers for crop enterprises, Mississippi, 2023

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	16.54
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, 2023

Crop	unit	Futures Contract Month	Futures Contract Price <sup>a</sup>	Basis <sup>b</sup>	Forward Contract Price <sup>c</sup>	Loan Rate <sup>d</sup>	Budget Price <sup>e</sup>
Corn	bu	Dec '23	6.20	-0.05	6.15	2.35	6.15
Cotton Lint	lb	Dec '23	0.75	-0.011	0.7389	0.52	0.7389
Cottonseed	lb						0.11 <sup>f</sup>
Grain Sorghum	bu				5.84	4.09	5.84
Peanuts	ton				575.00	354.89	575.00
Soybeans	bu	Nov '23	13.54	0.12	13.66	6.41	13.66
Rice	bu	Nov '23	6.93	-0.18	6.75	3.21	6.75
Wheat	bu	Jul '23	9.03	0.13	8.90	3.60	8.90

- <sup>a</sup> Average of the daily closing futures contract prices during the first 5 trading days in October 2022 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 2013 to 2022 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 2022 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2022 Farm-stored Loan Rate for long grain rough rice. National 2022 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 2008-2021.

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, 2023

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----dollars-----										
Land Plane	50'x16'		1.66	0.36	0.63		0.17	2.82	2.11	4.93
Set Up Engine										
IRRIGATE LABOR	hour				0.23		0.01	0.24		0.24
Ditcher (1m/160a)			0.37	0.08	0.16		0.01	0.62	0.44	1.06
Roll-Out Pipe	ft	7.92					0.17	8.09		8.09
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll		0.49	0.12	0.44		0.02	1.07	1.10	2.17
IRRIGATE LABOR	hour				1.81		0.04	1.85		1.85
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Apply Water										
IRRIGATE LABOR	hour				0.23			0.23		0.23
Pick Up Pipe										
Pipe Spool 160ac	1/4m roll		0.74	0.18	0.65		0.01	1.58	1.65	3.23
Land Forming (\$450)	each								38.27	38.27
Well & Pump, Furrow	each			2.96			0.06	3.02	10.47	13.49
Main Line Pipe	each								5.79	5.79
Engine, RPF, ESB	each								10.48	10.48
1st June Irrigation	ac-in		10.95	1.40			0.26	12.61		12.61
2nd June Irrigation	ac-in		10.95	1.40			0.26	12.61		12.61
July Irrigation	ac-in		10.95	1.40			0.20	12.55		12.55
TOTALS		7.92	36.11	7.90	4.61	0.00	1.21	57.75	70.31	128.06

Note: Cost of production estimates are based on 2022 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, 2023

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		0.63	0.11	0.27			0.03	1.04	1.85
Survey & Mark Levees	acre	2.25						0.06	2.31	2.31
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.84	0.15	0.35			0.04	1.38	2.45
Butt Levees										
Blade-Box	6'-7'		0.78	0.14	0.33			0.03	1.28	2.12
IRRIGATE LABOR	hour				0.68			0.02	0.70	0.70
Apply Water										
IRRIGATE LABOR	hour				0.11				0.11	0.11
Tear Down Levees										
Levee Splitter (1/80)	32"		0.65	0.13	0.28			0.03	1.09	1.95
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.84	0.15	0.35			0.03	1.37	2.44
Butt Levees										
Blade-Box	6'-7'		0.78	0.14	0.33			0.03	1.28	2.12
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"		0.65	0.13	0.28			0.02	1.08	1.94
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.84	0.15	0.35			0.02	1.36	2.43
Butt Levees										
Blade-Box	6'-7'		0.78	0.14	0.33			0.02	1.27	2.11
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"		0.65	0.13	0.28			0.02	1.08	1.94
Tear Down Levees										
Levee Splitter (1/80)	32"		0.49	0.09	0.21			0.01	0.80	1.45
Land Forming (\$113)	each								9.61	9.61
Well & Pump, Flood	each			5.91				0.16	6.07	27.01
Engine, CF, 75	each								20.96	20.96
June Irrigation	ac-in		16.42	2.80				0.51	19.73	19.73
July Irrigation	ac-in		16.42	2.80				0.41	19.63	19.63
August Irrigation	ac-in		16.42	2.80				0.31	19.53	19.53
TOTALS		2.25	57.19	15.77	6.18	0.00	1.78	83.17	61.28	144.45

Note: Cost of production estimates are based on 2022 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, 2023

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			0.23	8.83	40.29	
Well & Pump, 1/2 CP	each			1.13			0.03	1.16	4.01	
Engine, 1/2 CP, 174	each								5.65	
June Irr. 3app@.75"	ac-in		22.05	0.68			0.61	23.34	23.34	
July Irr. 4app@.75"	ac-in		29.40	0.91			0.65	30.96	30.96	
Aug Irr. 3app@.75"	ac-in		22.05	0.68			0.36	23.09	23.09	
TOTALS		0.00	73.50	12.00	0.47	0.00	1.89	87.86	49.95	137.81

Note: Cost of production estimates are based on 2022 input prices.



## Literature Cited

1. Agricultural Engineers Yearbook of Standards. American Society of Agricultural Engineers, St. Joseph, Michigan.
2. Boehlje, M.D. and V.R. Eidman. *Farm Management*. New York: John Wiley and Sons, 1984.
3. Bolton, Bill, J.B. Penn, Fred T. Cooke Jr., and Arthur M. Heagler. "Days Suitable for Fieldwork, Mississippi River Delta Cotton Area." D.A.E. Research Report No. 384, Louisiana State University, November 1968."
4. Budgets for Major Farm Enterprises in the Mississippi River Delta of Arkansas, Louisiana, and Mississippi." D.A.E. Circular No. 281, Department of Agricultural Economics and Agribusiness, Agricultural Experiment Station, Louisiana State University, June 1961
5. Caillavet, DeWitt F. "An Economic Assessment of Production Alternatives Resulting From Changes in the Machinery Complement of Representative Farms in the Delta Area of Mississippi." Master of Science Thesis, Department of Agricultural Economics, Mississippi State University, May 1984.
6. Cooke, Fred T. Jr., J.M. Anderson, and Arthur M. Heagler. "Crop Budgets and Planning Data for Major Farm Enterprises in the Yazoo-Mississippi Delta." Mississippi Agricultural and Forestry Experiment Station Bulletin 794, July 1972.
7. Cooke, Fred T. Jr., J.M. Anderson, D.W. Parvin Jr., A.M. Heagler, Kenneth Paxton, Shelby Holders Jr., and James G. Hamill. "Crop Budgets and Planning Data for Major Farm Enterprises in the Mississippi-Louisiana Delta, 1975." Mississippi Agricultural and Forestry Experiment Station Bulletin 834, May 1975.
8. "Corn, Grain Sorghum & Wheat 2022 Planning Budgets." Budget Report No. 2021-03, Department of Agricultural Economics, Mississippi State University, November 2021.
9. "Costs of Producing Selected Crops in the U.S., 1974." Senate Committee Project No. 63-092, Committee on Agriculture and Forestry, U.S. Senate, January 8, 1976.
- 9
10. "Cotton 2022 Planning Budgets." Budget Report No. 2021-01, Department of Agricultural Economics, Mississippi State University, November 2021.
11. Cox, Laura Rebecca. "Overhead Labor Cost in the Delta Area of Mississippi." Master of Science Thesis, Department of Agricultural Economics, Mississippi State University, October 1982.
12. "Forage 2023 Planning Budgets." Budget Report No. 2022-08, Department of Agricultural Economics, Mississippi State University, April 2022.
13. Laughlin, David H. and Robert K. Mehrle. "An Economic Evaluation: Straight Versus Contour Levee Rice Production Practices in Mississippi." Mississippi Agricultural and Forestry Experiment Station Bulletin 1063. December 1996.
14. Laughlin, David H. and Stan Spurlock. "User's Guide for the Mississippi State Budget Generator Version 6.0 for Windows." AEC Staff Report No. 2003-01, Department of Agricultural Economics, Mississippi State University, March 2003.
15. "Peanuts 2022 Planning Budgets." Budget Report No. 2021-07, Department of Agricultural Economics, Mississippi State University, November 2021.
16. "Rice 2022 Planning Budgets." Budget Report No. 2021-04, Department of Agricultural Economics, Mississippi State University, November 2021.
17. "Soybeans 2022 Planning Budgets." Budget Report No. 2021-02, Department of Agricultural Economics, Mississippi State University, November 2021.
18. "United States Department of Agriculture Farm Service Agency. *Commodity Loan Rates*. <https://www.fsa.usda.gov/programs-and-services/price-support/commodity-loan-rates/index>. Accessed October 22,2021.
19. "Vegetables 2018 Planning Budgets." Budget Report No. 2017-09, Department of Agricultural Economics, Mississippi State University December 2017.







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