

SOYBEANS
2022
PLANNING BUDGETS

Mississippi State University
Department of Agricultural Economics
Budget Report 2021-02

November 2021

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 2022 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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2022 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 2021. (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 2021 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, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
Sodium Chlorate 5L	gal	8.54	0.6000	5.12	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	64.0000	7.04	_____
2,4-D Amine 4	pt	2.64	2.0000	5.28	_____
Select Max	pt	12.73	1.0000	12.73	_____
Valor SX	oz	3.60	2.0000	7.20	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Enlist Duo	pt	3.49	3.5000	12.22	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
Zidua DF	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.20	50.0000	60.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.2773	4.23	_____
Harvesters	hour	15.27	0.0851	1.30	_____
HAND LABOR					
Implements	hour	9.06	0.0789	0.72	_____
UNALLOCATED LABOR					
	hour	15.26	0.3262	4.98	_____
DIESEL FUEL					
Tractors	gal	2.36	4.2827	10.11	_____
Harvesters	gal	2.36	1.4243	3.36	_____
REPAIR & MAINTENANCE					
Implements	acre	5.67	1.0000	5.67	_____
Tractors	acre	2.81	1.0000	2.81	_____
Harvesters	acre	3.67	1.0000	3.67	_____
INTEREST ON OP. CAP.	acre	7.39	1.0000	7.39	_____
TOTAL DIRECT EXPENSES				372.14	_____
FIXED EXPENSES					
Implements	acre	10.77	1.0000	10.77	_____
Tractors	acre	16.55	1.0000	16.55	_____
Harvesters	acre	13.62	1.0000	13.62	_____
TOTAL FIXED EXPENSES				40.94	_____
TOTAL SPECIFIED EXPENSES				413.08	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 1.B Summary of estimated costs and returns per acre
Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
Non-irrigated, Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	42.0000	523.32	_____

TOTAL INCOME				523.32	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	8.16	1.0000	8.16	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	97.65	1.0000	97.65	_____
INSECTICIDES	acre	14.44	1.0000	14.44	_____
SEED/PLANTS	acre	60.00	1.0000	60.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0789	0.72	_____
OPERATOR LABOR	hour	15.27	0.3624	5.53	_____
UNALLOCATED LABOR	hour	15.26	0.3262	4.98	_____
DIESEL FUEL	gal	2.36	5.7071	13.47	_____
REPAIR & MAINTENANCE	acre	12.15	1.0000	12.15	_____
INTEREST ON OP. CAP.	acre	7.39	1.0000	7.39	_____

TOTAL DIRECT EXPENSES				372.14	_____
RETURNS ABOVE DIRECT EXPENSES				151.18	_____
TOTAL FIXED EXPENSES				40.94	_____

TOTAL SPECIFIED EXPENSES				413.08	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				110.24	_____

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 1.C Estimated resource use for field operations, per acre
Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
Non-irrigated, Delta Area, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Zidua DF	oz					1.5000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
Incidental Pest				1.00	Aug					
App by Air (5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	pt					0.2000				
Header -Soybean	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
Haul Soybeans	bu					42.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
TOTALS							0.36	0.36	0.44	0.32

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 1.D Estimated costs for field operations, per acre
Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
Non-irrigated, Delta Area, Mississippi, 2022

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						0.12	3.45		3.45
Subsoiler	3 shank		1.49	0.50	1.18			0.11	3.28	2.64	5.92
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76	11.67
Field Cultivate Fld	32'		1.70	0.99	1.35			0.14	4.18	4.83	9.01
App by Air (5 gal)	appl	7.00						0.16	7.16		7.16
Glyphosate 3lbs a.e	oz	3.52						0.08	3.60		3.60
2,4-D Amine 4	pt	5.28						0.12	5.40		5.40
Select Max	pt	12.73						0.30	13.03		13.03
Valor SX	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.32						0.03	1.35		1.35
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28	14.10
Soybean Enlist E3	lb	60.00						1.05	61.05		61.05
CruiserMaxx Vibrance	oz	7.36						0.13	7.49		7.49
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	20.90						0.37	21.27		21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28		9.28
Surfactant	pt	1.32						0.02	1.34		1.34
Soybeans Consultant	acre	6.50						0.09	6.59		6.59
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Enlist Duo	pt	12.22						0.18	12.40		12.40
Dual Magnum	pt	10.02						0.15	10.17		10.17
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
Zidua DF	oz	13.14						0.19	13.33		13.33
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Acephate 90SP	lb	6.44						0.04	6.48		6.48
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Gramoxone SL	oz	3.04						0.02	3.06		3.06
Sodium Chlorate 5L	gal	5.12						0.03	5.15		5.15
Surfactant	pt	0.66							0.66		0.66
Header -Soybean	30' Flex		3.36	4.62	2.47			0.03	10.48	14.95	25.43
Haul Soybeans	bu	11.34						0.03	11.37		11.37
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68	3.55
TOTALS		327.90	13.47	12.15	11.23	0.00	7.39	372.14	40.94	413.08	

Note: Cost of production estimates are based on 2021 input prices.

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

Table 1.E Estimated monthly income and expense flows per acre
Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
Non-irrigated, Delta Area, Mississippi, 2022

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	523.32
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.16	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	28.73	0.00	30.02	38.90	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	14.44	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	60.00	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.31	0.00	0.00	0.00	0.00	0.00	1.94	1.90	0.00	0.00	0.00	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	5.43	0.00	0.00	0.00	0.00	0.00	1.85	2.06	0.00	0.00	0.00	4.13
REPAIR & MAINTENANCE	3.18	0.00	0.00	0.00	0.00	0.00	2.91	0.96	0.00	0.00	0.00	5.10
INTEREST ON OP. CAP.	3.58	0.00	0.00	0.00	0.86	0.00	1.88	0.74	0.00	0.00	0.26	0.07
TOTAL DIRECT EXPENSES	106.10	0.00	0.00	0.00	37.91	0.00	108.83	51.06	0.00	0.00	44.52	23.72
NET INCOME	-106.10	0.00	0.00	0.00	-37.91	0.00	-108.83	-51.06	0.00	0.00	-44.52	499.60
NET INCOME TO DATE	-106.10	-106.10	-106.10	-106.10	-144.01	-144.01	-252.84	-303.90	-303.90	-303.90	-348.42	151.18

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 1.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Non-irrigated, Delta Area, Mississippi, 2022

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-170 -211	-157 -198	-144 -184	-130 -171	-117 -158	-104 -145	-91 -132	-78 -119	-65 -106	-52 -93	-39 -80
60	25.20	bu	-132 -173	-116 -157	-100 -141	-84 -125	-69 -110	-53 -94	-37 -78	-22 -63	-6 -47	9 -31	24 -16
70	29.40	bu	-93 -134	-75 -116	-57 -98	-39 -79	-20 -61	-2 -43	15 -25	34 -6	52 11	70 29	89 48
80	33.60	bu	-55 -96	-34 -75	-14 -54	6 -34	27 -13	48 7	69 28	90 49	111 70	132 91	153 112
90	37.80	bu	-17 -58	5 -35	29 -11	52 11	76 35	99 59	123 82	147 106	170 129	194 153	217 176
100	42.00	bu	20 -20	46 5	72 31	98 57	125 84	151 110	177 136	203 162	229 188	255 214	282 241
110	46.20	bu	58 17	87 46	116 75	144 103	173 132	202 161	231 190	259 219	288 247	317 276	346 305
120	50.40	bu	96 55	127 87	159 118	190 149	222 181	253 212	284 244	316 275	347 306	379 338	410 369
130	54.60	bu	134 93	168 127	202 161	236 195	270 229	304 263	338 297	372 331	406 365	440 399	474 433
140	58.80	bu	172 131	209 168	246 205	282 241	319 278	355 315	392 351	429 388	465 424	502 461	539 498
150	63.00	bu	210 169	250 209	289 248	328 287	367 326	407 366	446 405	485 444	524 483	564 523	603 562

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 2021 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, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	5.0000	35.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
Sodium Chlorate 5L	gal	8.54	0.6000	5.12	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
Miravis Top	oz	1.34	13.7000	18.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	64.0000	7.04	_____
2,4-D Amine 4	pt	2.64	2.0000	5.28	_____
Select Max	pt	12.73	1.0000	12.73	_____
Valor SX	oz	3.60	2.0000	7.20	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Enlist Duo	pt	3.49	3.5000	12.22	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
Zidua DF	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
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	1.20	50.0000	60.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.4165	6.36	_____
Harvesters	hour	15.27	0.0851	1.30	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3000	2.73	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.0789	0.72	_____
UNALLOCATED LABOR					
	hour	15.25	0.3808	5.81	_____
DIESEL FUEL					
Tractors	gal	2.36	5.9456	14.04	_____
Harvesters	gal	2.36	1.4243	3.36	_____
Roll-Out Pipe Irr.	gal	2.36	7.3316	17.31	_____
REPAIR & MAINTENANCE					
Implements	acre	6.63	1.0000	6.63	_____
Tractors	acre	3.87	1.0000	3.87	_____
Harvesters	acre	3.67	1.0000	3.67	_____
Roll-Out Pipe Irr.	acre	7.16	1.0000	7.16	_____
INTEREST ON OP. CAP.	acre	8.25	1.0000	8.25	_____
TOTAL DIRECT EXPENSES				448.15	_____
FIXED EXPENSES					
Implements	acre	14.00	1.0000	14.00	_____
Tractors	acre	22.84	1.0000	22.84	_____
Harvesters	acre	13.62	1.0000	13.62	_____
Roll-Out Pipe Irr.	acre	49.28	1.0000	49.28	_____
TOTAL FIXED EXPENSES				99.74	_____
TOTAL SPECIFIED EXPENSES				547.89	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 2.B Summary of estimated costs and returns per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	60.0000	747.60	_____

TOTAL INCOME				747.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	35.00	1.0000	35.00	_____
HARVEST AIDS	acre	8.16	1.0000	8.16	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	25.72	1.0000	25.72	_____
HERBICIDES	acre	97.65	1.0000	97.65	_____
INSECTICIDES	acre	14.44	1.0000	14.44	_____
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	_____
SEED/PLANTS	acre	60.00	1.0000	60.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0789	0.72	_____
IRRIGATE LABOR	hour	9.06	0.3625	3.30	_____
OPERATOR LABOR	hour	15.27	0.5016	7.66	_____
UNALLOCATED LABOR	hour	15.25	0.3808	5.81	_____
DIESEL FUEL	gal	2.36	14.7017	34.71	_____
REPAIR & MAINTENANCE	acre	21.33	1.0000	21.33	_____
INTEREST ON OP. CAP.	acre	8.25	1.0000	8.25	_____

TOTAL DIRECT EXPENSES				448.15	_____
RETURNS ABOVE DIRECT EXPENSES				299.45	_____
TOTAL FIXED EXPENSES				99.74	_____

TOTAL SPECIFIED EXPENSES				547.89	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				199.71	_____

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 2.C Estimated resource use for field operations, per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Zidua DF	oz					1.5000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
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							0.50	0.50	0.94	0.38

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 2.D Estimated costs for field operations, per acre
Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2022

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						0.12	3.45		3.45
Subsoiler	3 shank		1.49	0.50	1.18			0.11	3.28	2.64	5.92
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76	11.67
Field Cultivate Fld	32'		1.70	0.99	1.35			0.14	4.18	4.83	9.01
Bed/Lister-Roll-Fo	16R-30		2.21	1.35	1.76			0.19	5.51	5.44	10.95
App by Air (5 gal)	appl	7.00						0.16	7.16		7.16
Glyphosate 3lbs a.e	oz	3.52						0.08	3.60		3.60
2,4-D Amine 4	pt	5.28						0.12	5.40		5.40
Select Max	pt	12.73						0.30	13.03		13.03
Valor SX	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.32						0.03	1.35		1.35
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28	14.10
Soybean Enlist E3	lb	60.00						1.05	61.05		61.05
CruiserMaxx Vibrance	oz	7.36						0.13	7.49		7.49
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	20.90						0.37	21.27		21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28		9.28
Surfactant	pt	1.32						0.02	1.34		1.34
Soybeans Consultant	acre	6.50						0.09	6.59		6.59
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Enlist Duo	pt	12.22						0.18	12.40		12.40
Dual Magnum	pt	10.02						0.15	10.17		10.17
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
Zidua DF	oz	13.14						0.19	13.33		13.33
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Miravis Top	oz	18.36						0.16	18.52		18.52
Surfactant	pt	0.33							0.33		0.33
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Acephate 90SP	lb	6.44						0.04	6.48		6.48
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Gramoxone SL	oz	3.04						0.02	3.06		3.06
Sodium Chlorate 5L	gal	5.12						0.03	5.15		5.15
Surfactant	pt	0.66							0.66		0.66
Header -Soybean	30' Flex		3.36	4.62	2.47			0.03	10.48	14.95	25.43
Haul Soybeans	bu	16.20						0.05	16.25		16.25
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68	3.55
Roll-Out Pipe Irr.	acre	7.92	19.03	7.83	4.50			0.43	39.71	53.36	93.07
TOTALS		366.37	34.71	21.33	17.49	0.00	8.25	448.15	99.74	547.89	

Note: Cost of production estimates are based on 2021 input prices.

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

Table 2.E Estimated monthly income and expense flows per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2022

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	747.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.16	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	18.36	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	28.73	0.00	30.02	38.90	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	14.44	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	60.00	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.65	0.00	0.00	0.00	0.00	0.00	1.94	2.13	2.83	0.23	0.00	3.71
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	8.52	0.00	0.00	0.00	0.00	0.00	1.85	2.06	11.99	5.77	0.00	4.52
REPAIR & MAINTENANCE	4.85	0.00	0.00	0.00	0.00	0.00	2.91	0.96	5.94	1.40	0.00	5.27
INTEREST ON OP. CAP.	3.83	0.00	0.00	0.00	0.86	0.00	1.88	0.74	0.31	0.28	0.26	0.09
TOTAL DIRECT EXPENSES	113.45	0.00	0.00	0.00	37.91	0.00	108.83	51.29	28.99	33.37	44.52	29.79
NET INCOME	-113.45	0.00	0.00	0.00	-37.91	0.00	-108.83	-51.29	-28.99	-33.37	-44.52	717.81
NET INCOME TO DATE	-113.45	-113.45	-113.45	-113.45	-151.36	-151.36	-260.19	-311.48	-340.47	-373.84	-418.36	299.45

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 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, 2022

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-159	-140	-122	-103	-84	-66	-47	-28	-10	8	27
			-259	-240	-222	-203	-184	-165	-147	-128	-109	-91	-72
60	36.00	bu	-105	-82	-60	-37	-15	6	29	51	74	96	119
			-204	-182	-160	-137	-115	-92	-70	-47	-25	-3	19
70	42.00	bu	-50	-24	1	27	53	80	106	132	158	184	210
			-150	-124	-98	-72	-45	-19	6	32	58	84	111
80	48.00	bu	3	33	63	93	123	153	183	212	242	272	302
			-96	-66	-36	-6	23	53	83	113	143	173	202
90	54.00	bu	58	91	125	159	192	226	259	293	327	360	394
			-41	-7	25	59	92	126	160	193	227	261	294
100	60.00	bu	112	149	187	224	262	299	336	374	411	448	486
			12	50	87	124	162	199	237	274	311	349	386
110	66.00	bu	166	208	249	290	331	372	413	454	495	537	578
			67	108	149	190	231	272	313	355	396	437	478
120	72.00	bu	221	266	311	356	400	445	490	535	580	625	670
			121	166	211	256	301	345	390	435	480	525	570
130	78.00	bu	275	324	373	421	470	518	567	616	664	713	761
			176	224	273	321	370	419	467	516	564	613	662
140	84.00	bu	330	382	434	487	539	591	644	696	748	801	853
			230	282	335	387	439	492	544	596	649	701	753
150	90.00	bu	384	440	496	552	609	665	721	777	833	889	945
			285	341	397	453	509	565	621	677	733	789	845

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 2021 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, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
Sodium Chlorate 5L	gal	8.54	0.6000	5.12	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
Miravis Top	oz	1.34	13.7000	18.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	64.0000	7.04	_____
Select Max	pt	12.73	1.0000	12.73	_____
Valor SX	oz	3.60	2.0000	7.20	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Enlist Duo	pt	3.49	3.5000	12.22	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.20	50.0000	60.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.4208	6.44	_____
Harvesters	hour	15.27	0.0851	1.30	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.0930	0.85	_____
UNALLOCATED LABOR	hour	15.28	0.2728	4.17	_____
DIESEL FUEL					
Tractors	gal	2.36	5.1416	12.11	_____
Harvesters	gal	2.36	1.4243	3.36	_____
Contour Flood Irr.	gal	2.36	10.9974	25.95	_____
REPAIR & MAINTENANCE					
Implements	acre	5.47	1.0000	5.47	_____
Tractors	acre	3.26	1.0000	3.26	_____
Harvesters	acre	3.67	1.0000	3.67	_____
Contour Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.	acre	7.87	1.0000	7.87	_____
TOTAL DIRECT EXPENSES				424.97	_____
FIXED EXPENSES					
Implements	acre	9.69	1.0000	9.69	_____
Tractors	acre	19.12	1.0000	19.12	_____
Harvesters	acre	13.62	1.0000	13.62	_____
Contour Flood Irr.	acre	39.45	1.0000	39.45	_____
TOTAL FIXED EXPENSES				81.88	_____
TOTAL SPECIFIED EXPENSES				506.85	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 3.B Summary of estimated costs and returns per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	53.0000	660.38	_____

TOTAL INCOME				660.38	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	8.16	1.0000	8.16	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	25.72	1.0000	25.72	_____
HERBICIDES	acre	79.23	1.0000	79.23	_____
INSECTICIDES	acre	14.44	1.0000	14.44	_____
SEED/PLANTS	acre	60.00	1.0000	60.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0930	0.85	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	15.27	0.5060	7.74	_____
UNALLOCATED LABOR	hour	15.28	0.2728	4.17	_____
DIESEL FUEL	gal	2.36	17.5635	41.42	_____
REPAIR & MAINTENANCE	acre	26.71	1.0000	26.71	_____
INTEREST ON OP. CAP.	acre	7.87	1.0000	7.87	_____

TOTAL DIRECT EXPENSES				424.97	_____
RETURNS ABOVE DIRECT EXPENSES				235.41	_____
TOTAL FIXED EXPENSES				81.88	_____

TOTAL SPECIFIED EXPENSES				506.85	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				153.53	_____

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 3.C Estimated resource use for field operations, per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Valor SX	oz					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
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							0.50	0.50	0.91	0.27

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 3.D Estimated costs for field operations, per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2022

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						0.12	3.45		3.45
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76	11.67
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Spray (Broadcast)	60'		1.03	0.48	0.95			0.06	2.52	1.90	4.42
Glyphosate 3lbs a.e	oz	3.52						0.09	3.61		3.61
Select Max	pt	12.73						0.33	13.06		13.06
Surfactant	pt	1.32						0.03	1.35		1.35
Valor SX	oz	7.20						0.19	7.39		7.39
Soybeans Consultant	acre	6.50						0.11	6.61		6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28	14.10
Soybean Enlist E3	lb	60.00						1.05	61.05		61.05
CruiserMaxx Vibrance	oz	7.36						0.13	7.49		7.49
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	20.90						0.37	21.27		21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28		9.28
Surfactant	pt	1.32						0.02	1.34		1.34
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Enlist Duo	pt	12.22						0.21	12.43		12.43
Dual Magnum	pt	10.02						0.18	10.20		10.20
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
App by Air (5 gal)	appl	7.00						0.08	7.08		7.08
Miravis Top	oz	18.36						0.21	18.57		18.57
Surfactant	pt	0.33							0.33		0.33
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	6.44						0.06	6.50		6.50
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Gramoxone SL	oz	3.04						0.02	3.06		3.06
Sodium Chlorate 5L	gal	5.12						0.03	5.15		5.15
Surfactant	pt	0.66							0.66		0.66
Header -Soybean	30' Flex		3.36	4.62	2.47			0.03	10.48	14.95	25.43
Haul Soybeans	bu	14.31						0.04	14.35		14.35
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68	3.55
Contour Flood Irr.	acre	2.25	30.11	15.57	5.93			0.66	54.52	46.51	101.03
TOTALS		333.39	41.42	26.71	15.58	0.00	7.87	424.97	81.88	506.85	

Note: Cost of production estimates are based on 2021 input prices.

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

Table 3.E Estimated monthly income and expense flows per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2022

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	660.38
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	7.00	14.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.16	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	18.36	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	23.45	0.00	0.00	52.26	3.52	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.44	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	60.00	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	1.78	0.00	0.00	0.95	0.00	0.00	3.34	2.88	1.68	1.68	0.19	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.24	0.00	0.00	1.03	0.00	0.00	2.88	11.20	9.84	9.84	0.26	4.13
REPAIR & MAINTENANCE	1.69	0.00	0.00	0.48	0.00	0.00	3.39	9.66	3.16	3.16	0.07	5.10
INTEREST ON OP. CAP.	3.33	0.00	0.00	0.70	0.00	0.00	2.43	0.43	0.46	0.26	0.18	0.08
TOTAL DIRECT EXPENSES	98.64	0.00	0.00	27.93	0.00	0.00	141.03	29.94	40.83	28.38	31.52	26.70
NET INCOME	-98.64	0.00	0.00	-27.93	0.00	0.00	-141.03	-29.94	-40.83	-28.38	-31.52	633.68
NET INCOME TO DATE	-98.64	-98.64	-98.64	-126.57	-126.57	-126.57	-267.60	-297.54	-338.37	-366.75	-398.27	235.41

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 3.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, Enlist E3, stale seedbed, 16R30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2022

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	26.50	bu	-170 -252	-153 -235	-137 -219	-120 -202	-104 -185	-87 -169	-71 -152	-54 -136	-38 -119	-21 -103	-5 -86
60	31.80	bu	-122 -203	-102 -184	-82 -164	-62 -144	-42 -124	-23 -104	-3 -85	16 -65	36 -45	56 -25	76 -5
70	37.10	bu	-73 -155	-50 -132	-27 -109	-4 -86	18 -63	41 -40	64 -17	87 5	110 29	134 52	157 75
80	42.40	bu	-25 -107	0 -81	26 -54	53 -28	79 -2	106 24	132 50	159 77	185 103	211 129	238 156
90	47.70	bu	22 -59	51 -29	81 -0	111 29	141 59	170 88	200 118	230 148	259 178	289 207	319 237
100	53.00	bu	70 -11	103 21	136 54	169 87	202 120	235 153	268 186	301 219	334 252	367 285	400 318
110	58.30	bu	118 36	154 72	191 109	227 145	263 181	300 218	336 254	372 290	408 327	445 363	481 399
120	63.60	bu	166 84	206 124	245 163	285 203	324 243	364 282	404 322	443 361	483 401	523 441	562 480
130	68.90	bu	214 132	257 175	300 218	343 261	386 304	429 347	472 390	515 433	557 476	600 519	643 561
140	74.20	bu	262 180	308 227	355 273	401 319	447 365	493 411	540 458	586 504	632 550	678 596	724 643
150	79.50	bu	310 228	360 278	409 327	459 377	508 427	558 476	607 526	657 575	707 625	756 674	806 724

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 2021 input prices.

Table 4.A Estimated costs per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	4.0000	28.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
Miravis Top	oz	1.34	13.7000	18.36	_____
HERBICIDES					
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Enlist Duo	pt	3.49	3.5000	12.22	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.86	6.4000	5.50	_____
IncidentalPestTrt	\$8 acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.20	50.0000	60.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.1002	1.53	_____
Harvesters	hour	15.27	0.1021	1.56	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0648	0.59	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL					
Tractors	gal	2.36	1.5477	3.65	_____
Harvesters	gal	2.36	1.3935	3.29	_____
1/2-mi Pivot Irr.	gal	2.36	16.4057	38.73	_____
REPAIR & MAINTENANCE					
Implements	acre	3.80	1.0000	3.80	_____
Tractors	acre	1.02	1.0000	1.02	_____
Harvesters	acre	4.16	1.0000	4.16	_____
1/2-mi Pivot Irr.	acre	12.00	1.0000	12.00	_____
INTEREST ON OP. CAP.	acre	6.48	1.0000	6.48	_____
TOTAL DIRECT EXPENSES				394.67	_____
FIXED EXPENSES					
Implements	acre	6.20	1.0000	6.20	_____
Tractors	acre	5.98	1.0000	5.98	_____
Harvesters	acre	15.44	1.0000	15.44	_____
1/2-mi Pivot Irr.	acre	39.11	1.0000	39.11	_____
TOTAL FIXED EXPENSES				66.73	_____
TOTAL SPECIFIED EXPENSES				461.40	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 4.B Summary of estimated costs and returns per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	50.0000	623.00	_____

TOTAL INCOME				623.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	25.72	1.0000	25.72	_____
HERBICIDES	acre	52.26	1.0000	52.26	_____
INSECTICIDES	acre	35.62	1.0000	35.62	_____
SEED/PLANTS	acre	60.00	1.0000	60.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0648	0.59	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	15.27	0.2024	3.09	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL	gal	2.36	19.3470	45.67	_____
REPAIR & MAINTENANCE	acre	20.98	1.0000	20.98	_____
INTEREST ON OP. CAP.	acre	6.48	1.0000	6.48	_____

TOTAL DIRECT EXPENSES				394.67	_____
RETURNS ABOVE DIRECT EXPENSES				228.33	_____
TOTAL FIXED EXPENSES				66.73	_____

TOTAL SPECIFIED EXPENSES				461.40	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				161.60	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 4.C Estimated resource use for field operations, per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jul		0.02	0.02	0.04	0.02
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	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu					50.0000				
Grain Cart Soybean	700 bu	MFWD 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							0.20	0.20	0.31	0.17

Note: Cost of production estimates are based on 2021 input prices.

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

Table 4.D Estimated costs for field operations, per acre
 Soybeans, double crop after wheat, Enlist E3, 16R30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

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						0.12	3.45	3.45
Lime (Spread)	ton	19.65						0.69	20.34	20.34
Custom Apply Fert	acre	7.50						0.26	7.76	7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98	24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20	36.20
Soybeans Consultant	acre	6.50						0.11	6.61	6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.91			0.10	6.77	7.28
Soybean Enlist E3	lb	60.00						0.88	60.88	60.88
CruiserMaxx Vibrance	oz	7.36						0.11	7.47	7.47
Inoculant -Soybean	acre	1.55						0.02	1.57	1.57
Boundary	pt	20.90						0.30	21.20	21.20
Gramoxone SL 2.0	oz	9.12						0.13	9.25	9.25
Surfactant	pt	1.32						0.02	1.34	1.34
Spray (Broadcast)	60'		1.03	0.48	0.93			0.03	2.47	1.90
Enlist Duo	pt	12.22						0.14	12.36	12.36
Dual Magnum	pt	10.02						0.12	10.14	10.14
App by Air (5 gal)	appl	7.00						0.06	7.06	7.06
Miravis Top	oz	18.36						0.16	18.52	18.52
Surfactant	pt	0.33							0.33	0.33
App by Air (5 gal)	appl	7.00						0.06	7.06	7.06
Acephate 90SP	lb	6.44						0.06	6.50	6.50
App by Air (5 gal)	appl	7.00						0.06	7.06	7.06
Prevathon	oz	15.68						0.14	15.82	15.82
Surfactant	pt	0.33							0.33	0.33
Bifenthrin	oz	5.50						0.05	5.55	5.55
Incidental Pest										
App by Air (5 gal)	appl	7.00						0.04	7.04	7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05	8.05
Header -Soybean	25' Flex		3.29	5.11	2.90			0.03	11.33	16.76
Haul Soybeans	bu	13.50						0.04	13.54	13.54
Grain Cart Soybean	700 bu		0.77	0.48	0.60			0.01	1.86	1.68
1/2-mi Pivot Irr.	acre		38.73	12.00	0.47			0.63	51.83	39.11
TOTALS		314.73	45.67	20.98	6.81	0.00	6.48	394.67	66.73	461.40

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 4.E Estimated monthly income and expense flows per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

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	623.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	7.00	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	18.36	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.02	22.24	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	27.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.34	1.95	0.98	0.04	0.00	3.50
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.47	16.52	11.62	0.00	4.06
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.32	1.39	0.68	0.00	5.59
INTEREST ON OP. CAP.	3.13	0.00	0.00	0.00	0.00	0.00	0.11	1.89	0.48	0.70	0.09	0.08
TOTAL DIRECT EXPENSES	92.73	0.00	0.00	0.00	0.00	0.00	6.95	130.88	41.61	80.68	15.09	26.73
NET INCOME	-92.73	0.00	0.00	0.00	0.00	0.00	-6.95	-130.88	-41.61	-80.68	-15.09	596.27
NET INCOME TO DATE	-92.73	-92.73	-92.73	-92.73	-92.73	-92.73	-99.68	-230.56	-272.17	-352.85	-367.94	228.33

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre
 Soybeans, double crop after wheat, Enlist E3, 16R30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

			-----PERCENT-----										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			-----PRODUCT PRICE-----										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	-----dollars-----										
50	25.00	bu	-154	-138	-123	-107	-91	-76	-60	-45	-29	-14	1
			-221	-205	-189	-174	-158	-143	-127	-111	-96	-80	-65
60	30.00	bu	-108	-90	-71	-52	-34	-15	3	21	40	59	77
			-175	-156	-138	-119	-100	-82	-63	-44	-26	-7	11
70	35.00	bu	-63	-41	-19	1	23	45	67	89	110	132	154
			-130	-108	-86	-64	-43	-21	0	22	44	65	87
80	40.00	bu	-18	6	31	56	81	106	131	156	181	206	231
			-84	-59	-35	-10	14	39	64	89	114	139	164
90	45.00	bu	27	55	83	111	139	167	195	223	251	279	307
			-39	-11	16	44	72	100	128	156	184	212	240
100	50.00	bu	72	103	134	166	197	228	259	290	321	352	384
			5	37	68	99	130	161	192	223	255	286	317
110	55.00	bu	117	152	186	220	255	289	323	357	392	426	460
			51	85	119	154	188	222	256	291	325	359	393
120	60.00	bu	163	200	238	275	312	350	387	424	462	499	537
			96	133	171	208	246	283	320	358	395	433	470
130	65.00	bu	208	249	289	330	370	411	451	492	532	573	613
			141	182	222	263	303	344	384	425	465	506	546
140	70.00	bu	254	297	341	384	428	472	515	559	602	646	690
			187	230	274	318	361	405	448	492	536	579	623
150	75.00	bu	299	346	392	439	486	533	579	626	673	719	766
			232	279	326	372	419	466	513	559	606	653	699

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 2021 input prices..

Table 5.A Estimated costs per acre
Soybeans, full-season, Enlist E3, April planted, 16R30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	2.0000	14.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.6600	18.32	_____
Potash (60% K2O)	cwt	26.30	1.0000	26.30	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	64.0000	7.04	_____
2,4-D Amine 4	pt	2.64	2.0000	5.28	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Enlist Duo	pt	3.49	3.5000	12.22	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.20	50.0000	60.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.2610	3.98	_____
Harvesters	hour	15.27	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.0894	0.82	_____
UNALLOCATED LABOR					
	hour	15.26	0.3269	4.99	_____
DIESEL FUEL					
Tractors	gal	2.36	4.0312	9.52	_____
Harvesters	gal	2.36	1.3935	3.29	_____
REPAIR & MAINTENANCE					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	2.66	1.0000	2.66	_____
Harvesters	acre	4.16	1.0000	4.16	_____
INTEREST ON OP. CAP.	acre	5.86	1.0000	5.86	_____
TOTAL DIRECT EXPENSES				292.85	_____
FIXED EXPENSES					
Implements	acre	10.13	1.0000	10.13	_____
Tractors	acre	15.57	1.0000	15.57	_____
Harvesters	acre	15.44	1.0000	15.44	_____
TOTAL FIXED EXPENSES				41.14	_____
TOTAL SPECIFIED EXPENSES				333.99	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 5.B Summary of estimated costs and returns per acre
Soybeans, full-season, Enlist E3, April planted, 16R30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	43.0000	535.78	_____

TOTAL INCOME				535.78	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	14.00	1.0000	14.00	_____
HARVEST AIDS	acre	3.04	1.0000	3.04	_____
FERTILIZERS	acre	44.62	1.0000	44.62	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	64.58	1.0000	64.58	_____
INSECTICIDES	acre	6.44	1.0000	6.44	_____
SEED/PLANTS	acre	60.00	1.0000	60.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0894	0.82	_____
OPERATOR LABOR	hour	15.27	0.3632	5.54	_____
UNALLOCATED LABOR	hour	15.26	0.3269	4.99	_____
DIESEL FUEL	gal	2.36	5.4248	12.81	_____
REPAIR & MAINTENANCE	acre	12.22	1.0000	12.22	_____
INTEREST ON OP. CAP.	acre	5.86	1.0000	5.86	_____

TOTAL DIRECT EXPENSES				292.85	_____
RETURNS ABOVE DIRECT EXPENSES				242.93	_____
TOTAL FIXED EXPENSES				41.14	_____

TOTAL SPECIFIED EXPENSES				333.99	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				201.79	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 5.C Estimated resource use for field operations, per acre Soybeans, full-season, Enlist E3, April planted, 16R30" Non-Delta Area, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Aug		0.02	0.02	0.04	0.02
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	oz					16.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09
Haul Soybeans	bu					43.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
TOTALS							0.36	0.36	0.45	0.32

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 5.D Estimated costs for field operations, per acre
Soybeans, full-season, Enlist E3, April planted, 16R30"
Non-Delta Area, Mississippi, 2022

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						0.12	3.45	3.45
Lime (Spread)	ton	19.65						0.69	20.34	20.34
Custom Apply Fert	acre	7.50						0.26	7.76	7.76
Phosphorus(46% P2O5)	cwt	18.32						0.64	18.96	18.96
Potash (60% K2O)	cwt	26.30						0.92	27.22	27.22
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76
Field Cultivate Fld	32'		1.70	0.99	1.35			0.14	4.18	4.83
App by Air (5 gal)	appl	7.00						0.14	7.14	7.14
Glyphosate 3lbs a.e	oz	3.52						0.07	3.59	3.59
2,4-D Amine 4	pt	5.28						0.11	5.39	5.39
Plant - Folding	16R-30		1.72	2.51	1.80			0.11	6.14	6.41
Soybean Enlist E3	lb	60.00						1.05	61.05	61.05
CruiserMaxx Vibrance	oz	7.36						0.13	7.49	7.49
Boundary	pt	20.90						0.37	21.27	21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28	9.28
Surfactant	pt	1.32						0.02	1.34	1.34
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90
Enlist Duo	pt	12.22						0.18	12.40	12.40
Dual Magnum	pt	10.02						0.15	10.17	10.17
Soybeans Consultant	acre	6.50						0.09	6.59	6.59
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57	3.57
Spray (Broadcast)	60'		1.03	0.48	0.95			0.01	2.47	1.90
Acephate 90SP	lb	6.44						0.04	6.48	6.48
App by Air (5 gal)	appl	7.00						0.04	7.04	7.04
Gramoxone SL	oz	3.04						0.02	3.06	3.06
Surfactant	pt	0.66							0.66	0.66
Header -Soybean	25' Flex		3.29	5.11	2.96			0.03	11.39	16.76
Haul Soybeans	bu	11.61						0.03	11.64	11.64
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68
TOTALS		250.61	12.81	12.22	11.35	0.00	5.86	292.85	41.14	333.99

Note: Cost of production estimates are based on 2021 input prices.

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

Table 5.E Estimated monthly income and expense flows per acre
Soybeans, full-season, Enlist E3, April planted, 16R30"
Non-Delta Area, Mississippi, 2022

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	535.78
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	0.00
FERTILIZERS	44.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	8.80	30.02	25.76	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	6.44	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.13	0.00	0.00	0.00	0.00	0.00	1.80	1.90	0.00	0.00	0.95	3.57
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	3.94	0.00	0.00	0.00	0.00	0.00	1.72	2.06	0.00	0.00	1.03	4.06
REPAIR & MAINTENANCE	2.68	0.00	0.00	0.00	0.00	0.00	2.51	0.96	0.00	0.00	0.48	5.59
INTEREST ON OP. CAP.	2.97	0.00	0.00	0.00	0.00	0.32	1.84	0.55	0.00	0.00	0.11	0.07
TOTAL DIRECT EXPENSES	87.82	0.00	0.00	0.00	0.00	16.12	106.57	37.73	0.00	0.00	19.71	24.90
NET INCOME	-87.82	0.00	0.00	0.00	0.00	-16.12	-106.57	-37.73	0.00	0.00	-19.71	510.88
NET INCOME TO DATE	-87.82	-87.82	-87.82	-87.82	-87.82	-103.94	-210.51	-248.24	-248.24	-248.24	-267.95	242.93

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 5.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, Enlist E3, April planted, 16R30"
 Non-Delta Area, Mississippi, 2022

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-86 -127	-72 -113	-59 -100	-45 -87	-32 -73	-19 -60	-5 -46	7 -33	21 -20	34 -6	47 6
60	25.80	bu	-47 -88	-31 -72	-14 -56	1 -40	17 -23	33 -7	49 8	65 24	81 40	97 56	113 72
70	30.10	bu	-8 -49	10 -30	29 -11	48 7	66 25	85 44	104 63	123 82	141 100	160 119	179 138
80	34.40	bu	30 -10	52 11	73 32	95 54	116 75	138 96	159 118	180 139	202 161	223 182	245 204
90	38.70	bu	69 28	94 52	118 77	142 101	166 125	190 149	214 173	238 197	262 221	286 245	311 269
100	43.00	bu	108 67	135 94	162 121	189 148	216 175	242 201	269 228	296 255	323 282	350 308	376 335
110	47.30	bu	148 106	177 136	206 165	236 195	265 224	295 254	324 283	354 313	383 342	413 372	442 401
120	51.60	bu	187 145	219 178	251 210	283 242	315 274	347 306	379 338	412 370	444 403	476 435	508 467
130	55.90	bu	226 184	260 219	295 254	330 289	365 324	400 359	434 393	469 428	504 463	539 498	574 533
140	60.20	bu	265 223	302 261	340 298	377 336	415 373	452 411	490 448	527 486	565 523	602 561	640 598
150	64.50	bu	304 262	344 303	384 343	424 383	464 423	505 463	545 504	585 544	625 584	665 624	705 664

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 2021 input prices.

Table 6.A Estimated costs per acre
Soybeans, full-season, Enlist E3, May planted, 16R30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	1.0000	7.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.6600	18.32	_____
Potash (60% K2O)	cwt	26.30	1.0000	26.30	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	64.0000	7.04	_____
Select Max	pt	12.73	1.0000	12.73	_____
Fierce	oz	6.50	3.5000	22.75	_____
Gramoxone SL 2.0	oz	0.19	96.0000	18.24	_____
Boundary	pt	10.45	2.0000	20.90	_____
Enlist Duo	pt	3.49	3.5000	12.22	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Dimilin 2L	oz	1.70	1.0000	1.70	_____
Bifenthrin	oz	0.86	1.0500	0.90	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.20	50.0000	60.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.3817	5.84	_____
Harvesters	hour	15.27	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1212	1.10	_____
UNALLOCATED LABOR	hour	15.24	0.4355	6.64	_____
DIESEL FUEL					
Tractors	gal	2.36	5.8952	13.91	_____
Harvesters	gal	2.36	1.3935	3.29	_____
REPAIR & MAINTENANCE					
Implements	acre	6.90	1.0000	6.90	_____
Tractors	acre	3.87	1.0000	3.87	_____
Harvesters	acre	4.16	1.0000	4.16	_____
INTEREST ON OP. CAP.	acre	5.08	1.0000	5.08	_____
TOTAL DIRECT EXPENSES				333.44	_____
FIXED EXPENSES					
Implements	acre	13.04	1.0000	13.04	_____
Tractors	acre	22.77	1.0000	22.77	_____
Harvesters	acre	15.44	1.0000	15.44	_____
TOTAL FIXED EXPENSES				51.25	_____
TOTAL SPECIFIED EXPENSES				384.69	_____

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 6.B Summary of estimated costs and returns per acre
Soybeans, full-season, Enlist E3, May planted, 16R30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	40.0000	498.40	_____

TOTAL INCOME				498.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.00	1.0000	7.00	_____
HARVEST AIDS	acre	3.04	1.0000	3.04	_____
FERTILIZERS	acre	44.62	1.0000	44.62	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	103.90	1.0000	103.90	_____
INSECTICIDES	acre	2.60	1.0000	2.60	_____
SEED/PLANTS	acre	60.00	1.0000	60.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1212	1.10	_____
OPERATOR LABOR	hour	15.27	0.4839	7.40	_____
UNALLOCATED LABOR	hour	15.24	0.4355	6.64	_____
DIESEL FUEL	gal	2.36	7.2888	17.20	_____
REPAIR & MAINTENANCE	acre	14.93	1.0000	14.93	_____
INTEREST ON OP. CAP.	acre	5.08	1.0000	5.08	_____

TOTAL DIRECT EXPENSES				333.44	_____
RETURNS ABOVE DIRECT EXPENSES				164.96	_____
TOTAL FIXED EXPENSES				51.25	_____

TOTAL SPECIFIED EXPENSES				384.69	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				113.71	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 6.C Estimated resource use for field operations, per acre
Soybeans, full-season, Enlist E3, May planted, 16R30"
Non-Delta Area, Mississippi, 2022

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
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Fierce	oz					3.5000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Enlist Duo	pt					3.5000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
Surfactant	pt					0.0500				
Spray (Broadcast)	60'	MFWD 300	0.028	0.50	Aug		0.01	0.01	0.02	0.01
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	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.09
Haul Soybeans	bu					40.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.48	0.48	0.60	0.43

Note: Cost of production estimates are based on 2021 input prices.

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

Table 6.D Estimated costs for field operations, per acre
Soybeans, full-season, Enlist E3, May planted, 16R30"
Non-Delta Area, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Soil Test	acre	3.33						0.01	3.34	3.34
Lime (Spread)	ton	19.65						0.06	19.71	19.71
Disk Harrow	32'		2.24	1.69	1.78			0.02	5.73	5.76
Field Cultivate Fld	32'		1.70	0.99	1.35			0.01	4.05	4.83
Bed/Lister-Roll-Fo	16R-30		2.21	1.35	1.76			0.02	5.34	5.44
Spray (Broadcast)	60'		1.03	0.48	0.95			0.06	2.52	1.90
Glyphosate 3lbs a.e	oz	3.52						0.09	3.61	3.61
Select Max	pt	12.73						0.33	13.06	13.06
Surfactant	pt	1.32						0.03	1.35	1.35
Custom Apply Fert	acre	7.50						0.15	7.65	7.65
Phosphorus (46% P2O5)	cwt	18.32						0.37	18.69	18.69
Potash (60% K2O)	cwt	26.30						0.54	26.84	26.84
Spray (Broadcast)	60'		1.03	0.48	0.95			0.05	2.51	1.90
Fierce	oz	22.75						0.46	23.21	23.21
Gramoxone SL 2.0	oz	9.12						0.19	9.31	9.31
Surfactant	pt	1.32						0.03	1.35	1.35
Soybeans Consultant	acre	6.50						0.11	6.61	6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28
Soybean Enlist E3	lb	60.00						1.05	61.05	61.05
CruiserMaxx Vibrance	oz	7.36						0.13	7.49	7.49
Boundary	pt	20.90						0.37	21.27	21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28	9.28
Surfactant	pt	1.32						0.02	1.34	1.34
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90
Enlist Duo	pt	12.22						0.21	12.43	12.43
Dual Magnum	pt	10.02						0.18	10.20	10.20
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57	3.57
Spray (Broadcast)	60'		0.51	0.24	0.47			0.01	1.23	0.95
Dimilin 2L	oz	1.70						0.02	1.72	1.72
Surfactant	pt	0.17							0.17	0.17
Spray (Broadcast)	60'		0.51	0.24	0.47			0.01	1.23	0.95
Bifenthrin	oz	0.90						0.01	0.91	0.91
App by Air (5 gal)	appl	7.00						0.04	7.04	7.04
Gramoxone SL	oz	3.04						0.02	3.06	3.06
Surfactant	pt	0.66							0.66	0.66
Header -Soybean	25' Flex		3.29	5.11	2.96			0.03	11.39	16.76
Haul Soybeans	bu	10.80						0.03	10.83	10.83
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68
TOTALS		281.09	17.20	14.93	15.14	0.00	5.08	333.44	51.25	384.69

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 6.E Estimated monthly income and expense flows per acre
Soybeans, full-season, Enlist E3, May planted, 16R30"
Non-Delta Area, Mississippi, 2022

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	498.40
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	44.62	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	16.25	0.00	31.87	52.26	3.52	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70	0.90	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	60.00	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	19.65
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.95	0.00	0.95	2.89	0.95	0.47	0.47	0.00	8.46
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	1.03	0.00	1.03	2.88	1.03	0.51	0.51	0.00	10.21
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.48	0.00	0.48	3.39	0.48	0.24	0.24	0.00	9.62
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.51	0.00	1.79	2.39	0.09	0.03	0.02	0.06	0.19
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.54	0.00	89.56	138.99	6.07	3.12	2.14	10.76	62.26
NET INCOME	0.00	0.00	0.00	-20.54	0.00	-89.56	-138.99	-6.07	-3.12	-2.14	-10.76	436.14
NET INCOME TO DATE	0.00	0.00	0.00	-20.54	-20.54	-110.10	-249.09	-255.16	-258.28	-260.42	-271.18	164.96

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 6.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, Enlist E3, May planted, 16R30"
 Non-Delta Area, Mississippi, 2022

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	-----dollars-----										
50	20.00	bu	-141	-128	-116	-103	-91	-78	-66	-53	-41	-28	-16
			-192	-179	-167	-154	-142	-130	-117	-105	-92	-80	-67
60	24.00	bu	-104	-89	-74	-59	-45	-30	-15	-0	14	29	44
			-156	-141	-126	-111	-96	-81	-66	-51	-36	-21	-6
70	28.00	bu	-68	-51	-33	-16	1	18	36	53	71	88	105
			-119	-102	-84	-67	-50	-32	-15	2	19	37	54
80	32.00	bu	-32	-12	7	27	47	67	87	107	127	147	167
			-83	-63	-43	-23	-3	16	36	56	76	95	115
90	36.00	bu	4	26	48	71	93	116	138	161	183	205	228
			-47	-24	-2	20	42	64	87	109	132	154	177
100	40.00	bu	40	65	90	115	140	164	189	214	239	264	289
			-10	14	38	63	88	113	138	163	188	213	238
110	44.00	bu	76	104	131	158	186	213	241	268	295	323	350
			25	52	80	107	135	162	189	217	244	272	299
120	48.00	bu	112	142	172	202	232	262	292	322	352	382	411
			61	91	121	151	181	211	241	271	300	330	360
130	52.00	bu	149	181	214	246	278	311	343	376	408	440	473
			98	130	162	195	227	259	292	324	357	389	421
140	56.00	bu	185	220	255	290	325	359	394	429	464	499	534
			134	169	204	238	273	308	343	378	413	448	483
150	60.00	bu	221	259	296	333	371	408	446	483	520	558	595
			170	207	245	282	320	357	394	432	469	507	544

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 2021 input prices.

Table 7.A Estimated costs per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Non-irrigated, All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	3.0000	21.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Enlist Duo	pt	3.49	3.5000	12.22	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.86	6.4000	5.50	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Enlist E3	lb	1.20	50.0000	60.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.1002	1.53	_____
Harvesters	hour	15.27	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.0648	0.59	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL					
Tractors	gal	2.36	1.5477	3.65	_____
Harvesters	gal	2.36	1.3935	3.29	_____
REPAIR & MAINTENANCE					
Implements	acre	3.80	1.0000	3.80	_____
Tractors	acre	1.02	1.0000	1.02	_____
Harvesters	acre	4.16	1.0000	4.16	_____
INTEREST ON OP. CAP.	acre	5.61	1.0000	5.61	_____
TOTAL DIRECT EXPENSES				310.16	_____
FIXED EXPENSES					
Implements	acre	6.20	1.0000	6.20	_____
Tractors	acre	5.98	1.0000	5.98	_____
Harvesters	acre	15.44	1.0000	15.44	_____
TOTAL FIXED EXPENSES				27.62	_____
TOTAL SPECIFIED EXPENSES				337.78	_____

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 7.B Summary of estimated costs and returns per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Non-irrigated, All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	25.0000	311.50	_____

TOTAL INCOME				311.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	21.00	1.0000	21.00	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	52.26	1.0000	52.26	_____
INSECTICIDES	acre	35.62	1.0000	35.62	_____
SEED/PLANTS	acre	60.00	1.0000	60.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0648	0.59	_____
OPERATOR LABOR	hour	15.27	0.2024	3.09	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL	gal	2.36	2.9413	6.94	_____
REPAIR & MAINTENANCE	acre	8.98	1.0000	8.98	_____
INTEREST ON OP. CAP.	acre	5.61	1.0000	5.61	_____

TOTAL DIRECT EXPENSES				310.16	_____
RETURNS ABOVE DIRECT EXPENSES				1.34	_____
TOTAL FIXED EXPENSES				27.62	_____

TOTAL SPECIFIED EXPENSES				337.78	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-26.28	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 7.C Estimated resource use for field operations, per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Non-irrigated, All Areas, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jul		0.02	0.02	0.04	0.02
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	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu					25.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.20	0.20	0.26	0.17

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 7.D Estimated costs for field operations, per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Non-irrigated, All Areas, Mississippi, 2022

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						0.12	3.45	3.45
Lime (Spread)	ton	19.65						0.69	20.34	20.34
Custom Apply Fert	acre	7.50						0.26	7.76	7.76
Phosphorus(46% P2O5)	cwt	24.14						0.84	24.98	24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20	36.20
Soybeans Consultant	acre	6.50						0.11	6.61	6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.91			0.10	6.77	7.28
Soybean Enlist E3	lb	60.00						0.88	60.88	60.88
CruiserMaxx Vibrance	oz	7.36						0.11	7.47	7.47
Inoculant -Soybean	acre	1.55						0.02	1.57	1.57
Boundary	pt	20.90						0.30	21.20	21.20
Gramoxone SL 2.0	oz	9.12						0.13	9.25	9.25
Surfactant	pt	1.32						0.02	1.34	1.34
Spray (Broadcast)	60'		1.03	0.48	0.93			0.03	2.47	1.90
Enlist Duo	pt	12.22						0.14	12.36	12.36
Dual Magnum	pt	10.02						0.12	10.14	10.14
App by Air (5 gal)	appl	7.00						0.06	7.06	7.06
Acephate 90SP	lb	6.44						0.06	6.50	6.50
App by Air (5 gal)	appl	7.00						0.06	7.06	7.06
Prevathon	oz	15.68						0.14	15.82	15.82
Surfactant	pt	0.33							0.33	0.33
Bifenthrin	oz	5.50						0.05	5.55	5.55
Incidental Pest										
App by Air (5 gal)	appl	7.00						0.04	7.04	7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05	8.05
Header -Soybean	25' Flex		3.29	5.11	2.90			0.03	11.33	16.76
Haul Soybeans	bu	6.75						0.02	6.77	6.77
Grain Cart Soybean	700 bu		0.77	0.48	0.60			0.01	1.86	1.68
TOTALS		282.29	6.94	8.98	6.34	0.00	5.61	310.16	27.62	337.78

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 7.E Estimated monthly income and expense flows per acre
Soybeans, double crop after wheat, Enlist E3, 16R30"
Non-irrigated, All Areas, Mississippi, 2022

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	311.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	7.00	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.02	22.24	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	27.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	0.93	0.00	0.00	3.50
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.03	0.00	0.00	4.06
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.91	0.48	0.00	0.00	5.59
INTEREST ON OP. CAP.	3.13	0.00	0.00	0.00	0.00	0.00	0.11	1.56	0.29	0.37	0.09	0.06
TOTAL DIRECT EXPENSES	92.73	0.00	0.00	0.00	0.00	0.00	6.61	108.48	24.97	42.32	15.09	19.96
NET INCOME	-92.73	0.00	0.00	0.00	0.00	0.00	-6.61	-108.48	-24.97	-42.32	-15.09	291.54
NET INCOME TO DATE	-92.73	-92.73	-92.73	-92.73	-92.73	-92.73	-99.34	-207.82	-232.79	-275.11	-290.20	1.34

Note: Cost of production estimates are based on 2021 input prices.

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

Table 7.F Estimated returns for various price/yield combinations, per acre
 Soybeans, double crop after wheat, Enlist E3, 16R30"
 Non-irrigated, All Areas, Mississippi, 2022

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-189	-182	-174	-166	-158	-151	-143	-135	-127	-119	-112
			-217	-209	-202	-194	-186	-178	-170	-163	-155	-147	-139
60	15.00	bu	-167	-157	-148	-139	-129	-120	-111	-101	-92	-83	-73
			-194	-185	-176	-166	-157	-148	-138	-129	-120	-110	-101
70	17.50	bu	-144	-133	-122	-111	-100	-90	-79	-68	-57	-46	-35
			-172	-161	-150	-139	-128	-117	-106	-95	-84	-74	-63
80	20.00	bu	-121	-109	-96	-84	-72	-59	-47	-34	-22	-9	2
			-149	-137	-124	-112	-99	-87	-74	-62	-49	-37	-24
90	22.50	bu	-99	-85	-71	-57	-43	-29	-15	-1	12	26	40
			-126	-112	-98	-84	-70	-56	-42	-28	-14	-0	13
100	25.00	bu	-76	-60	-45	-29	-14	1	16	32	48	63	79
			-104	-88	-73	-57	-41	-26	-10	4	20	36	51
110	27.50	bu	-53	-36	-19	-2	14	31	48	66	83	100	117
			-81	-64	-47	-30	-12	4	21	38	55	72	89
120	30.00	bu	-31	-12	6	24	43	62	80	99	118	137	155
			-58	-40	-21	-2	15	34	53	72	90	109	128
130	32.50	bu	-8	11	32	52	72	92	113	133	153	173	193
			-36	-15	4	24	44	65	85	105	125	146	166
140	35.00	bu	14	36	57	79	101	123	145	166	188	210	232
			-13	8	30	52	73	95	117	139	161	182	204
150	37.50	bu	36	60	83	106	130	153	177	200	223	247	270
			9	32	55	79	102	126	149	172	196	219	242

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 2021 input prices.

Table 8.A Estimated costs per acre
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"
Non-irrigated, Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
Sodium Chlorate 5L	gal	8.54	0.6000	5.12	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	96.0000	10.56	_____
2,4-D Amine 4	pt	2.64	2.0000	5.28	_____
Select Max	pt	12.73	1.0000	12.73	_____
Valor SX	oz	3.60	2.0000	7.20	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
Zidua DF	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.34	50.0000	67.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.2773	4.23	_____
Harvesters	hour	15.27	0.0851	1.30	_____
HAND LABOR					
Implements	hour	9.06	0.0789	0.72	_____
UNALLOCATED LABOR	hour	15.26	0.3262	4.98	_____
DIESEL FUEL					
Tractors	gal	2.36	4.2827	10.11	_____
Harvesters	gal	2.36	1.4243	3.36	_____
REPAIR & MAINTENANCE					
Implements	acre	5.67	1.0000	5.67	_____
Tractors	acre	2.81	1.0000	2.81	_____
Harvesters	acre	3.67	1.0000	3.67	_____
INTEREST ON OP. CAP.	acre	7.53	1.0000	7.53	_____
TOTAL DIRECT EXPENSES				381.20	_____
FIXED EXPENSES					
Implements	acre	10.77	1.0000	10.77	_____
Tractors	acre	16.55	1.0000	16.55	_____
Harvesters	acre	13.62	1.0000	13.62	_____
TOTAL FIXED EXPENSES				40.94	_____
TOTAL SPECIFIED EXPENSES				422.14	_____

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 8.B Summary of estimated costs and returns per acre
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"
Non-irrigated, Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	42.0000	523.32	_____

TOTAL INCOME				523.32	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	8.16	1.0000	8.16	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	99.57	1.0000	99.57	_____
INSECTICIDES	acre	14.44	1.0000	14.44	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0789	0.72	_____
OPERATOR LABOR	hour	15.27	0.3624	5.53	_____
UNALLOCATED LABOR	hour	15.26	0.3262	4.98	_____
DIESEL FUEL	gal	2.36	5.7071	13.47	_____
REPAIR & MAINTENANCE	acre	12.15	1.0000	12.15	_____
INTEREST ON OP. CAP.	acre	7.53	1.0000	7.53	_____

TOTAL DIRECT EXPENSES				381.20	_____
RETURNS ABOVE DIRECT EXPENSES				142.12	_____
TOTAL FIXED EXPENSES				40.94	_____

TOTAL SPECIFIED EXPENSES				422.14	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				101.18	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 8.C Estimated resource use for field operations, per acre
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"
Non-irrigated, Delta Area, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Zidua DF	oz					1.5000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Acephate 90SP	lb					0.7500				
Incidental Pest				1.00	Aug					
App by Air (5 gal)	appl					1.0000				
IncidentalPestTrt \$8	acre					1.0000				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	oz					16.0000				
Sodium Chlorate 5L	gal					0.6000				
Surfactant	pt					0.2000				
Header -Soybean	30' Flex	325 hp	0.085	1.00	Sep		0.08	0.08	0.08	0.07
Haul Soybeans	bu					42.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
TOTALS							0.36	0.36	0.44	0.32

Note: Cost of production estimates are based on 2021 input prices.

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

Table 8.D Estimated costs for field operations, per acre
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"
Non-irrigated, Delta Area, Mississippi, 2022

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						0.12	3.45		3.45
Subsoiler	3 shank		1.49	0.50	1.18			0.11	3.28	2.64	5.92
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76	11.67
Field Cultivate Fld	32'		1.70	0.99	1.35			0.14	4.18	4.83	9.01
App by Air (5 gal)	appl	7.00						0.16	7.16		7.16
Glyphosate 3lbs a.e	oz	3.52						0.08	3.60		3.60
2,4-D Amine 4	pt	5.28						0.12	5.40		5.40
Select Max	pt	12.73						0.30	13.03		13.03
Valor SX	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.32						0.03	1.35		1.35
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28	14.10
Soybean Seed RR2X	lb	67.00						1.17	68.17		68.17
CruiserMaxx Vibrance	oz	7.36						0.13	7.49		7.49
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	20.90						0.37	21.27		21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28		9.28
Surfactant	pt	1.32						0.02	1.34		1.34
Soybeans Consultant	acre	6.50						0.09	6.59		6.59
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
Engenia	oz	10.62						0.15	10.77		10.77
Dual Magnum	pt	10.02						0.15	10.17		10.17
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
Zidua DF	oz	13.14						0.19	13.33		13.33
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Acephate 90SP	lb	6.44						0.04	6.48		6.48
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Gramoxone SL	oz	3.04						0.02	3.06		3.06
Sodium Chlorate 5L	gal	5.12						0.03	5.15		5.15
Surfactant	pt	0.66							0.66		0.66
Header -Soybean	30' Flex		3.36	4.62	2.47			0.03	10.48	14.95	25.43
Haul Soybeans	bu	11.34						0.03	11.37		11.37
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68	3.55
TOTALS		336.82	13.47	12.15	11.23	0.00	7.53	381.20	40.94	422.14	

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 8.E Estimated monthly income and expense flows per acre
Soybeans, full-season, RR2X/XF, stale seedbed, 16R 30"
Non-irrigated, Delta Area, Mississippi, 2022

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	523.32
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.16	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	28.73	0.00	30.02	40.82	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	14.44	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	4.31	0.00	0.00	0.00	0.00	0.00	1.94	1.90	0.00	0.00	0.00	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	5.43	0.00	0.00	0.00	0.00	0.00	1.85	2.06	0.00	0.00	0.00	4.13
REPAIR & MAINTENANCE	3.18	0.00	0.00	0.00	0.00	0.00	2.91	0.96	0.00	0.00	0.00	5.10
INTEREST ON OP. CAP.	3.58	0.00	0.00	0.00	0.86	0.00	2.00	0.76	0.00	0.00	0.26	0.07
TOTAL DIRECT EXPENSES	106.10	0.00	0.00	0.00	37.91	0.00	115.95	53.00	0.00	0.00	44.52	23.72
NET INCOME	-106.10	0.00	0.00	0.00	-37.91	0.00	-115.95	-53.00	0.00	0.00	-44.52	499.60
NET INCOME TO DATE	-106.10	-106.10	-106.10	-106.10	-144.01	-144.01	-259.96	-312.96	-312.96	-312.96	-357.48	142.12

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 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, 2022

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	21.00	bu	-179 -220	-166 -207	-153 -194	-140 -180	-126 -167	-113 -154	-100 -141	-87 -128	-74 -115	-61 -102	-48 -89
60	25.20	bu	-141 -182	-125 -166	-109 -150	-94 -134	-78 -119	-62 -103	-46 -87	-31 -72	-15 -56	0 -40	15 -25
70	29.40	bu	-103 -143	-84 -125	-66 -107	-48 -89	-29 -70	-11 -52	6 -34	25 -15	43 2	61 20	80 39
80	33.60	bu	-64 -105	-44 -84	-23 -64	-2 -43	18 -22	39 -1	60 19	81 40	102 61	123 82	144 103
90	37.80	bu	-26 -67	-3 -44	20 -20	43 2	67 26	90 49	114 73	138 97	161 120	185 144	208 167
100	42.00	bu	11 -29	37 -3	63 22	89 48	115 75	142 101	168 127	194 153	220 179	246 205	272 232
110	46.20	bu	49 8	78 37	106 66	135 94	164 123	193 152	222 181	250 209	279 238	308 267	337 296
120	50.40	bu	87 46	118 77	150 109	181 140	213 172	244 203	275 234	307 266	338 297	370 329	401 360
130	54.60	bu	125 84	159 118	193 152	227 186	261 220	295 254	329 288	363 322	397 356	431 390	465 424
140	58.80	bu	163 122	200 159	237 196	273 232	310 269	346 305	383 342	420 379	456 415	493 452	530 489
150	63.00	bu	201 160	241 200	280 239	319 278	358 317	398 357	437 396	476 435	515 474	555 514	594 553

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 2021 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, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	5.0000	35.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
Sodium Chlorate 5L	gal	8.54	0.6000	5.12	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
Miravis Top	oz	1.34	13.7000	18.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	96.0000	10.56	_____
2,4-D Amine 4	pt	2.64	2.0000	5.28	_____
Select Max	pt	12.73	1.0000	12.73	_____
Valor SX	oz	3.60	2.0000	7.20	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
Zidua DF	oz	8.76	1.5000	13.14	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
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	1.34	50.0000	67.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.4165	6.36	_____
Harvesters	hour	15.27	0.0851	1.30	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3000	2.73	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.0789	0.72	_____
UNALLOCATED LABOR					
	hour	15.25	0.3808	5.81	_____
DIESEL FUEL					
Tractors	gal	2.36	5.9456	14.04	_____
Harvesters	gal	2.36	1.4243	3.36	_____
Roll-Out Pipe Irr.	gal	2.36	7.3316	17.31	_____
REPAIR & MAINTENANCE					
Implements	acre	6.63	1.0000	6.63	_____
Tractors	acre	3.87	1.0000	3.87	_____
Harvesters	acre	3.67	1.0000	3.67	_____
Roll-Out Pipe Irr.	acre	7.16	1.0000	7.16	_____
INTEREST ON OP. CAP.	acre	8.39	1.0000	8.39	_____
TOTAL DIRECT EXPENSES				457.21	_____
FIXED EXPENSES					
Implements	acre	14.00	1.0000	14.00	_____
Tractors	acre	22.84	1.0000	22.84	_____
Harvesters	acre	13.62	1.0000	13.62	_____
Roll-Out Pipe Irr.	acre	49.28	1.0000	49.28	_____
TOTAL FIXED EXPENSES				99.74	_____
TOTAL SPECIFIED EXPENSES				556.95	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 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, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	60.0000	747.60	_____

TOTAL INCOME				747.60	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	35.00	1.0000	35.00	_____
HARVEST AIDS	acre	8.16	1.0000	8.16	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	25.72	1.0000	25.72	_____
HERBICIDES	acre	99.57	1.0000	99.57	_____
INSECTICIDES	acre	14.44	1.0000	14.44	_____
IRRIGATION SUPPLIES	acre	7.92	1.0000	7.92	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0789	0.72	_____
IRRIGATE LABOR	hour	9.06	0.3625	3.30	_____
OPERATOR LABOR	hour	15.27	0.5016	7.66	_____
UNALLOCATED LABOR	hour	15.25	0.3808	5.81	_____
DIESEL FUEL	gal	2.36	14.7017	34.71	_____
REPAIR & MAINTENANCE	acre	21.33	1.0000	21.33	_____
INTEREST ON OP. CAP.	acre	8.39	1.0000	8.39	_____

TOTAL DIRECT EXPENSES				457.21	_____
RETURNS ABOVE DIRECT EXPENSES				290.39	_____
TOTAL FIXED EXPENSES				99.74	_____

TOTAL SPECIFIED EXPENSES				556.95	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				190.65	_____

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 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, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Zidua DF	oz					1.5000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
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							0.50	0.50	0.94	0.38

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 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, 2022

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						0.12	3.45		3.45
Subsoiler	3 shank		1.49	0.50	1.18			0.11	3.28	2.64	5.92
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76	11.67
Field Cultivate Fld	32'		1.70	0.99	1.35			0.14	4.18	4.83	9.01
Bed/Lister-Roll-Fo	16R-30		2.21	1.35	1.76			0.19	5.51	5.44	10.95
App by Air (5 gal)	appl	7.00						0.16	7.16		7.16
Glyphosate 3lbs a.e	oz	3.52						0.08	3.60		3.60
2,4-D Amine 4	pt	5.28						0.12	5.40		5.40
Select Max	pt	12.73						0.30	13.03		13.03
Valor SX	oz	7.20						0.17	7.37		7.37
Surfactant	pt	1.32						0.03	1.35		1.35
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28	14.10
Soybean Seed RR2X	lb	67.00						1.17	68.17		68.17
CruiserMaxx Vibrance	oz	7.36						0.13	7.49		7.49
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	20.90						0.37	21.27		21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28		9.28
Surfactant	pt	1.32						0.02	1.34		1.34
Soybeans Consultant	acre	6.50						0.09	6.59		6.59
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
Engenia	oz	10.62						0.15	10.77		10.77
Dual Magnum	pt	10.02						0.15	10.17		10.17
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
Zidua DF	oz	13.14						0.19	13.33		13.33
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Miravis Top	oz	18.36						0.16	18.52		18.52
Surfactant	pt	0.33							0.33		0.33
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Acephate 90SP	lb	6.44						0.04	6.48		6.48
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Gramoxone SL	oz	3.04						0.02	3.06		3.06
Sodium Chlorate 5L	gal	5.12						0.03	5.15		5.15
Surfactant	pt	0.66							0.66		0.66
Header -Soybean	30' Flex		3.36	4.62	2.47			0.03	10.48	14.95	25.43
Haul Soybeans	bu	16.20						0.05	16.25		16.25
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68	3.55
Roll-Out Pipe Irr.	acre	7.92	19.03	7.83	4.50			0.43	39.71	53.36	93.07
TOTALS		375.29	34.71	21.33	17.49	0.00	8.39	457.21	99.74	556.95	

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 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, 2022

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	747.60
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	21.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.16	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	18.36	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	28.73	0.00	30.02	40.82	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	14.44	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	67.00	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.65	0.00	0.00	0.00	0.00	0.00	1.94	2.13	2.83	0.23	0.00	3.71
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	8.52	0.00	0.00	0.00	0.00	0.00	1.85	2.06	11.99	5.77	0.00	4.52
REPAIR & MAINTENANCE	4.85	0.00	0.00	0.00	0.00	0.00	2.91	0.96	5.94	1.40	0.00	5.27
INTEREST ON OP. CAP.	3.83	0.00	0.00	0.00	0.86	0.00	2.00	0.76	0.31	0.28	0.26	0.09
TOTAL DIRECT EXPENSES	113.45	0.00	0.00	0.00	37.91	0.00	115.95	53.23	28.99	33.37	44.52	29.79
NET INCOME	-113.45	0.00	0.00	0.00	-37.91	0.00	-115.95	-53.23	-28.99	-33.37	-44.52	717.81
NET INCOME TO DATE	-113.45	-113.45	-113.45	-113.45	-151.36	-151.36	-267.31	-320.54	-349.53	-382.90	-427.42	290.39

Note: Cost of production estimates are based on 2021 input prices.

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

* Lease costs are based on hourly usage costs.

Table 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, 2022

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
-----			-----PRODUCT PRICE-----										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-168 -268	-150 -249	-131 -231	-112 -212	-93 -193	-75 -175	-56 -156	-37 -137	-19 -118	-0 -100	18 -81
60	36.00	bu	-114 -214	-91 -191	-69 -169	-47 -146	-24 -124	-2 -101	20 -79	42 -57	65 -34	87 -12	109 10
70	42.00	bu	-59 -159	-33 -133	-7 -107	18 -81	44 -54	70 -28	97 -2	123 23	149 49	175 75	201 102
80	48.00	bu	-5 -105	24 -75	54 -45	84 -15	114 14	144 44	174 74	203 104	233 134	263 163	293 193
90	54.00	bu	49 -50	82 -17	116 16	149 50	183 83	217 117	250 151	284 184	318 218	351 252	385 285
100	60.00	bu	103 3	140 41	178 78	215 115	253 153	290 190	327 228	365 265	402 302	439 340	477 377
110	66.00	bu	157 58	199 99	240 140	281 181	322 222	363 263	404 304	445 346	486 387	527 428	569 469
120	72.00	bu	212 112	257 157	302 202	346 247	391 292	436 336	481 381	526 426	571 471	616 516	660 561
130	78.00	bu	266 167	315 215	364 264	412 312	461 361	509 410	558 458	606 507	655 555	704 604	752 653
140	84.00	bu	321 221	373 273	425 326	478 378	530 430	582 483	635 535	687 587	739 640	792 692	844 744
150	90.00	bu	375 275	431 332	487 388	543 444	599 500	656 556	712 612	768 668	824 724	880 780	936 836

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 2021 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, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	4.0000	28.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
Sodium Chlorate 5L	gal	8.54	0.6000	5.12	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
Miravis Top	oz	1.34	13.7000	18.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	96.0000	10.56	_____
Select Max	pt	12.73	1.0000	12.73	_____
Valor SX	oz	3.60	2.0000	7.20	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.34	50.0000	67.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.4208	6.44	_____
Harvesters	hour	15.27	0.0851	1.30	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3125	2.82	_____
HAND LABOR					
Implements	hour	9.06	0.0930	0.85	_____
UNALLOCATED LABOR	hour	15.28	0.2728	4.17	_____
DIESEL FUEL					
Tractors	gal	2.36	5.1416	12.11	_____
Harvesters	gal	2.36	1.4243	3.36	_____
Contour Flood Irr.	gal	2.36	10.9974	25.95	_____
REPAIR & MAINTENANCE					
Implements	acre	5.47	1.0000	5.47	_____
Tractors	acre	3.26	1.0000	3.26	_____
Harvesters	acre	3.67	1.0000	3.67	_____
Contour Flood Irr.	acre	14.31	1.0000	14.31	_____
INTEREST ON OP. CAP.	acre	8.03	1.0000	8.03	_____
TOTAL DIRECT EXPENSES				434.05	_____
FIXED EXPENSES					
Implements	acre	9.69	1.0000	9.69	_____
Tractors	acre	19.12	1.0000	19.12	_____
Harvesters	acre	13.62	1.0000	13.62	_____
Contour Flood Irr.	acre	39.45	1.0000	39.45	_____
TOTAL FIXED EXPENSES				81.88	_____
TOTAL SPECIFIED EXPENSES				515.93	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 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, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	53.0000	660.38	_____

TOTAL INCOME				660.38	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
HARVEST AIDS	acre	8.16	1.0000	8.16	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	25.72	1.0000	25.72	_____
HERBICIDES	acre	81.15	1.0000	81.15	_____
INSECTICIDES	acre	14.44	1.0000	14.44	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0930	0.85	_____
IRRIGATE LABOR	hour	9.06	0.3125	2.82	_____
OPERATOR LABOR	hour	15.27	0.5060	7.74	_____
UNALLOCATED LABOR	hour	15.28	0.2728	4.17	_____
DIESEL FUEL	gal	2.36	17.5635	41.42	_____
REPAIR & MAINTENANCE	acre	26.71	1.0000	26.71	_____
INTEREST ON OP. CAP.	acre	8.03	1.0000	8.03	_____

TOTAL DIRECT EXPENSES				434.05	_____
RETURNS ABOVE DIRECT EXPENSES				226.33	_____
TOTAL FIXED EXPENSES				81.88	_____

TOTAL SPECIFIED EXPENSES				515.93	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				144.45	_____

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 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, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Valor SX	oz					2.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
App by Air (5 gal)	appl			1.00	Jul	1.0000				
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							0.50	0.50	0.91	0.27

Note: Cost of production estimates are based on 2021 input prices.

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

Table 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, 2022

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						0.12	3.45		3.45
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76	11.67
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Spray (Broadcast)	60'		1.03	0.48	0.95			0.06	2.52	1.90	4.42
Glyphosate 3lbs a.e	oz	3.52						0.09	3.61		3.61
Select Max	pt	12.73						0.33	13.06		13.06
Surfactant	pt	1.32						0.03	1.35		1.35
Valor SX	oz	7.20						0.19	7.39		7.39
Soybeans Consultant	acre	6.50						0.11	6.61		6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28	14.10
Soybean Seed RR2X	lb	67.00						1.17	68.17		68.17
CruiserMaxx Vibrance	oz	7.36						0.13	7.49		7.49
Inoculant -Soybean	acre	1.55						0.03	1.58		1.58
Boundary	pt	20.90						0.37	21.27		21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28		9.28
Surfactant	pt	1.32						0.02	1.34		1.34
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.06	3.58		3.58
Engenia	oz	10.62						0.19	10.81		10.81
Dual Magnum	pt	10.02						0.18	10.20		10.20
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
App by Air (5 gal)	appl	7.00						0.08	7.08		7.08
Miravis Top	oz	18.36						0.21	18.57		18.57
Surfactant	pt	0.33							0.33		0.33
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	6.44						0.06	6.50		6.50
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Gramoxone SL	oz	3.04						0.02	3.06		3.06
Sodium Chlorate 5L	gal	5.12						0.03	5.15		5.15
Surfactant	pt	0.66							0.66		0.66
Header -Soybean	30' Flex		3.36	4.62	2.47			0.03	10.48	14.95	25.43
Haul Soybeans	bu	14.31						0.04	14.35		14.35
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68	3.55
Contour Flood Irr.	acre	2.25	30.11	15.57	5.93			0.66	54.52	46.51	101.03
TOTALS		342.31	41.42	26.71	15.58	0.00	8.03	434.05	81.88	515.93	

Note: Cost of production estimates are based on 2021 input prices.

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

Table 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, 2022

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	660.38
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	7.00	14.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.16	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	18.36	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	23.45	0.00	0.00	54.18	3.52	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.44	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	1.78	0.00	0.00	0.95	0.00	0.00	3.34	2.88	1.68	1.68	0.19	3.08
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.24	0.00	0.00	1.03	0.00	0.00	2.88	11.20	9.84	9.84	0.26	4.13
REPAIR & MAINTENANCE	1.69	0.00	0.00	0.48	0.00	0.00	3.39	9.66	3.16	3.16	0.07	5.10
INTEREST ON OP. CAP.	3.33	0.00	0.00	0.70	0.00	0.00	2.59	0.43	0.46	0.26	0.18	0.08
TOTAL DIRECT EXPENSES	98.64	0.00	0.00	27.93	0.00	0.00	150.11	29.94	40.83	28.38	31.52	26.70
NET INCOME	-98.64	0.00	0.00	-27.93	0.00	0.00	-150.11	-29.94	-40.83	-28.38	-31.52	633.68
NET INCOME TO DATE	-98.64	-98.64	-98.64	-126.57	-126.57	-126.57	-276.68	-306.62	-347.45	-375.83	-407.35	226.33

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 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, 2022

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
-----PRODUCT PRICE-----													
Soybeans	9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57		
PERCENT	YIELD	UNIT	-----dollars-----										
50	26.50	bu	-179	-162	-146	-129	-113	-96	-80	-63	-47	-30	-14
			-261	-244	-228	-211	-195	-178	-162	-145	-129	-112	-96
60	31.80	bu	-131	-111	-91	-71	-51	-32	-12	7	27	47	66
			-213	-193	-173	-153	-133	-113	-94	-74	-54	-34	-14
70	37.10	bu	-83	-59	-36	-13	9	32	55	78	101	124	148
			-164	-141	-118	-95	-72	-49	-26	-3	19	43	66
80	42.40	bu	-34	-8	17	44	70	97	123	149	176	202	229
			-116	-90	-64	-37	-11	15	41	68	94	120	147
90	47.70	bu	13	42	72	102	132	161	191	221	250	280	310
			-68	-39	-9	20	50	79	109	139	168	198	228
100	53.00	bu	61	94	127	160	193	226	259	292	325	358	391
			-20	12	45	78	111	144	177	210	243	276	309
110	58.30	bu	109	145	181	218	254	290	327	363	399	436	472
			27	63	100	136	172	209	245	281	318	354	390
120	63.60	bu	157	197	236	276	315	355	395	434	474	514	553
			75	115	154	194	234	273	313	352	392	432	471
130	68.90	bu	205	248	291	334	377	420	463	505	548	591	634
			123	166	209	252	295	338	381	424	467	509	552
140	74.20	bu	253	299	346	392	438	484	530	577	623	669	715
			171	217	264	310	356	402	449	495	541	587	633
150	79.50	bu	301	351	400	450	499	549	598	648	697	747	796
			219	269	318	368	417	467	516	566	616	665	715

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 2021 input prices.

Table 11.A Estimated costs per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	4.0000	28.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
Miravis Top	oz	1.34	13.7000	18.36	_____
HERBICIDES					
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Glyphosate 3lbs a.e	oz	0.11	32.0000	3.52	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.86	6.4000	5.50	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.34	50.0000	67.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.1002	1.53	_____
Harvesters	hour	15.27	0.1021	1.56	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.0518	0.47	_____
HAND LABOR					
Implements	hour	9.06	0.0648	0.59	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL					
Tractors	gal	2.36	1.5477	3.65	_____
Harvesters	gal	2.36	1.3935	3.29	_____
1/2-mi Pivot Irr.	gal	2.36	16.4057	38.73	_____
REPAIR & MAINTENANCE					
Implements	acre	3.80	1.0000	3.80	_____
Tractors	acre	1.02	1.0000	1.02	_____
Harvesters	acre	4.16	1.0000	4.16	_____
1/2-mi Pivot Irr.	acre	12.00	1.0000	12.00	_____
INTEREST ON OP. CAP.	acre	6.60	1.0000	6.60	_____
TOTAL DIRECT EXPENSES				403.71	_____
FIXED EXPENSES					
Implements	acre	6.20	1.0000	6.20	_____
Tractors	acre	5.98	1.0000	5.98	_____
Harvesters	acre	15.44	1.0000	15.44	_____
1/2-mi Pivot Irr.	acre	39.11	1.0000	39.11	_____
TOTAL FIXED EXPENSES				66.73	_____
TOTAL SPECIFIED EXPENSES				470.44	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 11.B Summary of estimated costs and returns per acre
 Soybeans, double crop after wheat, RR2X/XF, 16R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	50.0000	623.00	_____

TOTAL INCOME				623.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	28.00	1.0000	28.00	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	25.72	1.0000	25.72	_____
HERBICIDES	acre	54.18	1.0000	54.18	_____
INSECTICIDES	acre	35.62	1.0000	35.62	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0648	0.59	_____
IRRIGATE LABOR	hour	9.06	0.0518	0.47	_____
OPERATOR LABOR	hour	15.27	0.2024	3.09	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL	gal	2.36	19.3470	45.67	_____
REPAIR & MAINTENANCE	acre	20.98	1.0000	20.98	_____
INTEREST ON OP. CAP.	acre	6.60	1.0000	6.60	_____

TOTAL DIRECT EXPENSES				403.71	_____
RETURNS ABOVE DIRECT EXPENSES				219.29	_____
TOTAL FIXED EXPENSES				66.73	_____

TOTAL SPECIFIED EXPENSES				470.44	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				152.56	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 11.C Estimated resource use for field operations, per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jul		0.02	0.02	0.04	0.02
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	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu					50.0000				
Grain Cart Soybean	700 bu	MFWD 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							0.20	0.20	0.31	0.17

Note: Cost of production estimates are based on 2021 input prices.

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

Table 11.D Estimated costs for field operations, per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

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						0.12	3.45		3.45
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Soybeans Consultant	acre	6.50						0.11	6.61		6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.91			0.10	6.77	7.28	14.05
Soybean Seed RR2X	lb	67.00						0.98	67.98		67.98
CruiserMaxx Vibrance	oz	7.36						0.11	7.47		7.47
Inoculant -Soybean	acre	1.55						0.02	1.57		1.57
Boundary	pt	20.90						0.30	21.20		21.20
Gramoxone SL 2.0	oz	9.12						0.13	9.25		9.25
Surfactant	pt	1.32						0.02	1.34		1.34
Spray (Broadcast)	60'		1.03	0.48	0.93			0.03	2.47	1.90	4.37
Glyphosate 3lbs a.e	oz	3.52						0.04	3.56		3.56
Engenia	oz	10.62						0.12	10.74		10.74
Dual Magnum	pt	10.02						0.12	10.14		10.14
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Miravis Top	oz	18.36						0.16	18.52		18.52
Surfactant	pt	0.33							0.33		0.33
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	6.44						0.06	6.50		6.50
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Prevathon	oz	15.68						0.14	15.82		15.82
Surfactant	pt	0.33							0.33		0.33
Bifenthrin	oz	5.50						0.05	5.55		5.55
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
Header -Soybean	25' Flex		3.29	5.11	2.90			0.03	11.33	16.76	28.09
Haul Soybeans	bu	13.50						0.04	13.54		13.54
Grain Cart Soybean	700 bu		0.77	0.48	0.60			0.01	1.86	1.68	3.54
1/2-mi Pivot Irr.	acre		38.73	12.00	0.47			0.63	51.83	39.11	90.94
TOTALS		323.65	45.67	20.98	6.81	0.00	6.60	403.71	66.73	470.44	

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 11.E Estimated monthly income and expense flows per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

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	623.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	7.00	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	18.36	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.02	24.16	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	27.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.34	1.95	0.98	0.04	0.00	3.50
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.47	16.52	11.62	0.00	4.06
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.32	1.39	0.68	0.00	5.59
INTEREST ON OP. CAP.	3.13	0.00	0.00	0.00	0.00	0.00	0.11	1.99	0.50	0.70	0.09	0.08
TOTAL DIRECT EXPENSES	92.73	0.00	0.00	0.00	0.00	0.00	6.95	137.98	43.55	80.68	15.09	26.73
NET INCOME	-92.73	0.00	0.00	0.00	0.00	0.00	-6.95	-137.98	-43.55	-80.68	-15.09	596.27
NET INCOME TO DATE	-92.73	-92.73	-92.73	-92.73	-92.73	-92.73	-99.68	-237.66	-281.21	-361.89	-376.98	219.29

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 11.F Estimated returns for various price/yield combinations, per acre
 Soybeans, double crop after wheat, RR2X/XF, 16R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2022

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	25.00	bu	-163 -230	-147 -214	-132 -198	-116 -183	-101 -167	-85 -152	-69 -136	-54 -121	-38 -105	-23 -89	-7 -74
60	30.00	bu	-117 -184	-99 -165	-80 -147	-61 -128	-43 -109	-24 -91	-5 -72	12 -53	31 -35	50 -16	68 2
70	35.00	bu	-72 -139	-50 -117	-28 -95	-7 -73	14 -52	36 -30	58 -8	80 13	101 35	123 56	145 78
80	40.00	bu	-27 -93	-2 -69	22 -44	47 -19	72 5	97 30	122 55	147 80	172 105	197 130	221 155
90	45.00	bu	18 -48	46 -20	74 7	102 35	130 63	158 91	186 119	214 147	242 175	270 203	298 231
100	50.00	bu	63 -3	94 27	125 59	156 90	188 121	219 152	250 183	281 214	312 246	343 277	375 308
110	55.00	bu	108 42	143 76	177 110	211 144	245 179	280 213	314 247	348 282	383 316	417 350	451 384
120	60.00	bu	154 87	191 124	229 162	266 199	303 237	341 274	378 311	415 349	453 386	490 423	528 461
130	65.00	bu	199 132	240 173	280 213	321 254	361 294	402 335	442 375	483 416	523 456	564 497	604 537
140	70.00	bu	245 178	288 221	332 265	375 309	419 352	463 396	506 439	550 483	593 527	637 570	681 614
150	75.00	bu	290 223	337 270	383 317	430 363	477 410	524 457	570 504	617 550	664 597	710 644	757 690

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 2021 input prices.

Table 12.A Estimated costs per acre
Soybeans, full-season, RR2X/XF, April planted, 16R 30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	2.0000	14.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.6600	18.32	_____
Potash (60% K2O)	cwt	26.30	1.0000	26.30	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	96.0000	10.56	_____
2,4-D Amine 4	pt	2.64	2.0000	5.28	_____
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.34	50.0000	67.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.2610	3.98	_____
Harvesters	hour	15.27	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.0894	0.82	_____
UNALLOCATED LABOR					
	hour	15.26	0.3269	4.99	_____
DIESEL FUEL					
Tractors	gal	2.36	4.0312	9.52	_____
Harvesters	gal	2.36	1.3935	3.29	_____
REPAIR & MAINTENANCE					
Implements	acre	5.40	1.0000	5.40	_____
Tractors	acre	2.66	1.0000	2.66	_____
Harvesters	acre	4.16	1.0000	4.16	_____
INTEREST ON OP. CAP.	acre	6.00	1.0000	6.00	_____
TOTAL DIRECT EXPENSES				301.91	_____
FIXED EXPENSES					
Implements	acre	10.13	1.0000	10.13	_____
Tractors	acre	15.57	1.0000	15.57	_____
Harvesters	acre	15.44	1.0000	15.44	_____
TOTAL FIXED EXPENSES				41.14	_____
TOTAL SPECIFIED EXPENSES				343.05	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 12.B Summary of estimated costs and returns per acre
Soybeans, full-season, RR2X/XF, April planted, 16R 30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	43.0000	535.78	_____

TOTAL INCOME				535.78	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	14.00	1.0000	14.00	_____
HARVEST AIDS	acre	3.04	1.0000	3.04	_____
FERTILIZERS	acre	44.62	1.0000	44.62	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	66.50	1.0000	66.50	_____
INSECTICIDES	acre	6.44	1.0000	6.44	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0894	0.82	_____
OPERATOR LABOR	hour	15.27	0.3632	5.54	_____
UNALLOCATED LABOR	hour	15.26	0.3269	4.99	_____
DIESEL FUEL	gal	2.36	5.4248	12.81	_____
REPAIR & MAINTENANCE	acre	12.22	1.0000	12.22	_____
INTEREST ON OP. CAP.	acre	6.00	1.0000	6.00	_____

TOTAL DIRECT EXPENSES				301.91	_____
RETURNS ABOVE DIRECT EXPENSES				233.87	_____
TOTAL FIXED EXPENSES				41.14	_____

TOTAL SPECIFIED EXPENSES				343.05	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				192.73	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 12.C Estimated resource use for field operations, per acre
Soybeans, full-season, RR2X/XF, April planted, 16R 30"
Non-Delta Area, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.3330				
Custom Apply Fert	acre			1.00	Oct	1.0000				
Phosphorus (46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Disk Harrow	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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Soybeans Consultant	acre			1.00	May	1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Aug		0.02	0.02	0.04	0.02
Acephate 90SP	lb					0.7500				
App by Air (5 gal)	appl			1.00	Aug	1.0000				
Gramoxone SL	oz					16.0000				
Surfactant	pt					0.2000				
Header -Soybean	25' Flex	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09
Haul Soybeans	bu					43.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Sep		0.02	0.02	0.02	0.01
TOTALS							0.36	0.36	0.45	0.32

Note: Cost of production estimates are based on 2021 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 12.D Estimated costs for field operations, per acre
Soybeans, full-season, RR2X/XF, April planted, 16R 30"
Non-Delta Area, Mississippi, 2022

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						0.12	3.45	3.45
Lime (Spread)	ton	19.65						0.69	20.34	20.34
Custom Apply Fert	acre	7.50						0.26	7.76	7.76
Phosphorus (46% P2O5)	cwt	18.32						0.64	18.96	18.96
Potash (60% K2O)	cwt	26.30						0.92	27.22	27.22
Disk Harrow	32'		2.24	1.69	1.78			0.20	5.91	5.76
Field Cultivate Fld	32'		1.70	0.99	1.35			0.14	4.18	4.83
App by Air (5 gal)	appl	7.00						0.14	7.14	7.14
Glyphosate 3lbs a.e	oz	3.52						0.07	3.59	3.59
2,4-D Amine 4	pt	5.28						0.11	5.39	5.39
Plant - Folding	16R-30		1.72	2.51	1.80			0.11	6.14	6.41
Soybean Seed RR2X	lb	67.00						1.17	68.17	68.17
CruiserMaxx Vibrance	oz	7.36						0.13	7.49	7.49
Boundary	pt	20.90						0.37	21.27	21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28	9.28
Surfactant	pt	1.32						0.02	1.34	1.34
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57	3.57
Engenia	oz	10.62						0.15	10.77	10.77
Dual Magnum	pt	10.02						0.15	10.17	10.17
Soybeans Consultant	acre	6.50						0.09	6.59	6.59
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57	3.57
Spray (Broadcast)	60'		1.03	0.48	0.95			0.01	2.47	1.90
Acephate 90SP	lb	6.44						0.04	6.48	6.48
App by Air (5 gal)	appl	7.00						0.04	7.04	7.04
Gramoxone SL	oz	3.04						0.02	3.06	3.06
Surfactant	pt	0.66							0.66	0.66
Header -Soybean	25' Flex		3.29	5.11	2.96			0.03	11.39	16.76
Haul Soybeans	bu	11.61						0.03	11.64	11.64
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68
TOTALS		259.53	12.81	12.22	11.35	0.00	6.00	301.91	41.14	343.05

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 12.E Estimated monthly income and expense flows per acre
Soybeans, full-season, RR2X/XF, April planted, 16R 30"
Non-Delta Area, Mississippi, 2022

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	535.78
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	7.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	0.00
FERTILIZERS	44.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	8.80	30.02	27.68	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	6.44	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	3.13	0.00	0.00	0.00	0.00	0.00	1.80	1.90	0.00	0.00	0.95	3.57
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	3.94	0.00	0.00	0.00	0.00	0.00	1.72	2.06	0.00	0.00	1.03	4.06
REPAIR & MAINTENANCE	2.68	0.00	0.00	0.00	0.00	0.00	2.51	0.96	0.00	0.00	0.48	5.59
INTEREST ON OP. CAP.	2.97	0.00	0.00	0.00	0.00	0.32	1.96	0.57	0.00	0.00	0.11	0.07
TOTAL DIRECT EXPENSES	87.82	0.00	0.00	0.00	0.00	16.12	113.69	39.67	0.00	0.00	19.71	24.90
NET INCOME	-87.82	0.00	0.00	0.00	0.00	-16.12	-113.69	-39.67	0.00	0.00	-19.71	510.88
NET INCOME TO DATE	-87.82	-87.82	-87.82	-87.82	-87.82	-103.94	-217.63	-257.30	-257.30	-257.30	-277.01	233.87

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 12.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, RR2X/XF, April planted, 16R 30"
 Non-Delta Area, Mississippi, 2022

			PERCENT										
PRODUCT			75	80	85	90	95	100	105	110	115	120	125
			PRODUCT PRICE										
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	21.50	bu	-95 -136	-81 -122	-68 -109	-54 -96	-41 -82	-28 -69	-14 -55	-1 -42	11 -29	25 -15	38 -2
60	25.80	bu	-56 -97	-40 -81	-24 -65	-7 -49	8 -32	24 -16	40 -0	56 15	72 31	88 47	104 63
70	30.10	bu	-17 -58	1 -39	20 -20	39 -2	57 16	76 35	95 54	114 72	132 91	151 110	170 129
80	34.40	bu	21 -19	43 2	64 23	86 45	107 66	129 87	150 109	171 130	193 152	214 173	236 195
90	38.70	bu	60 19	85 43	109 67	133 92	157 116	181 140	205 164	229 188	253 212	277 236	302 260
100	43.00	bu	99 58	126 85	153 112	180 139	207 165	233 192	260 219	287 246	314 273	341 299	367 326
110	47.30	bu	138 97	168 127	197 156	227 186	256 215	286 245	315 274	345 304	374 333	404 363	433 392
120	51.60	bu	177 136	210 168	242 201	274 233	306 265	338 297	370 329	402 361	435 393	467 426	499 458
130	55.90	bu	216 175	251 210	286 245	321 280	356 315	391 349	425 384	460 419	495 454	530 489	565 524
140	60.20	bu	256 214	293 252	331 289	368 327	406 364	443 402	481 439	518 477	556 514	593 552	631 589
150	64.50	bu	295 253	335 294	375 334	415 374	455 414	495 454	536 494	576 535	616 575	656 615	696 655

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 2021 input prices.

Table 13.A Estimated costs per acre
Soybeans, full-season, RR2X/XF, May planted, 16R 30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	1.0000	7.00	_____
HARVEST AIDS					
Gramoxone SL	oz	0.19	16.0000	3.04	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.6600	18.32	_____
Potash (60% K2O)	cwt	26.30	1.0000	26.30	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.11	96.0000	10.56	_____
Select Max	pt	12.73	1.0000	12.73	_____
Fierce	oz	6.50	3.5000	22.75	_____
Gramoxone SL 2.0	oz	0.19	96.0000	18.24	_____
Boundary	pt	10.45	2.0000	20.90	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Dimilin 2L	oz	1.70	1.0000	1.70	_____
Bifenthrin	oz	0.86	1.0500	0.90	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.34	50.0000	67.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.3817	5.84	_____
Harvesters	hour	15.27	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.1212	1.10	_____
UNALLOCATED LABOR	hour	15.24	0.4355	6.64	_____
DIESEL FUEL					
Tractors	gal	2.36	5.8952	13.91	_____
Harvesters	gal	2.36	1.3935	3.29	_____
REPAIR & MAINTENANCE					
Implements	acre	6.90	1.0000	6.90	_____
Tractors	acre	3.87	1.0000	3.87	_____
Harvesters	acre	4.16	1.0000	4.16	_____
INTEREST ON OP. CAP.	acre	5.24	1.0000	5.24	_____
TOTAL DIRECT EXPENSES				342.52	_____
FIXED EXPENSES					
Implements	acre	13.04	1.0000	13.04	_____
Tractors	acre	22.77	1.0000	22.77	_____
Harvesters	acre	15.44	1.0000	15.44	_____
TOTAL FIXED EXPENSES				51.25	_____
TOTAL SPECIFIED EXPENSES				393.77	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 13.B Summary of estimated costs and returns per acre
Soybeans, full-season, RR2X/XF, May planted, 16R 30"
Non-Delta Area, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	40.0000	498.40	_____

TOTAL INCOME				498.40	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.00	1.0000	7.00	_____
HARVEST AIDS	acre	3.04	1.0000	3.04	_____
FERTILIZERS	acre	44.62	1.0000	44.62	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	105.82	1.0000	105.82	_____
INSECTICIDES	acre	2.60	1.0000	2.60	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1212	1.10	_____
OPERATOR LABOR	hour	15.27	0.4839	7.40	_____
UNALLOCATED LABOR	hour	15.24	0.4355	6.64	_____
DIESEL FUEL	gal	2.36	7.2888	17.20	_____
REPAIR & MAINTENANCE	acre	14.93	1.0000	14.93	_____
INTEREST ON OP. CAP.	acre	5.24	1.0000	5.24	_____

TOTAL DIRECT EXPENSES				342.52	_____
RETURNS ABOVE DIRECT EXPENSES				155.88	_____
TOTAL FIXED EXPENSES				51.25	_____

TOTAL SPECIFIED EXPENSES				393.77	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				104.63	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre..

Table 13.C Estimated resource use for field operations, per acre
Soybeans, full-season, RR2X/XF, May planted, 16R 30"
Non-Delta Area, Mississippi, 2022

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
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Feb		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Select Max	pt					1.0000				
Surfactant	pt					0.4000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
Phosphorus(46% P2O5)	cwt					0.6600				
Potash (60% K2O)	cwt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Fierce	oz					3.5000				
Gramoxone SL 2.0	oz					48.0000				
Surfactant	pt					0.4000				
Soybeans Consultant	acre			1.00	May	1.0000				
Plant & Pre-Folding	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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	May		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Engenia	oz					12.8000				
Dual Magnum	pt					1.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jun		0.02	0.02	0.04	0.02
Glyphosate 3lbs a.e	oz					32.0000				
Spray (Broadcast)	60'	MFWD 300	0.028	0.50	Jul		0.01	0.01	0.02	0.01
Dimilin 2L	oz					1.0000				
Surfactant	pt					0.0500				
Spray (Broadcast)	60'	MFWD 300	0.028	0.50	Aug		0.01	0.01	0.02	0.01
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	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.09
Haul Soybeans	bu					40.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.48	0.48	0.60	0.43

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 13.D Estimated costs for field operations, per acre
Soybeans, full-season, RR2X/XF, May planted, 16R 30"
Non-Delta Area, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Soil Test	acre	3.33						0.01	3.34		3.34
Lime (Spread)	ton	19.65						0.06	19.71		19.71
Disk Harrow	32'		2.24	1.69	1.78			0.02	5.73	5.76	11.49
Field Cultivate Fld	32'		1.70	0.99	1.35			0.01	4.05	4.83	8.88
Bed/Lister-Roll-Fo	16R-30		2.21	1.35	1.76			0.02	5.34	5.44	10.78
Spray (Broadcast)	60'		1.03	0.48	0.95			0.06	2.52	1.90	4.42
Glyphosate 3lbs a.e	oz	3.52						0.09	3.61		3.61
Select Max	pt	12.73						0.33	13.06		13.06
Surfactant	pt	1.32						0.03	1.35		1.35
Custom Apply Fert	acre	7.50						0.15	7.65		7.65
Phosphorus (46% P2O5)	cwt	18.32						0.37	18.69		18.69
Potash (60% K2O)	cwt	26.30						0.54	26.84		26.84
Spray (Broadcast)	60'		1.03	0.48	0.95			0.05	2.51	1.90	4.41
Fierce	oz	22.75						0.46	23.21		23.21
Gramoxone SL 2.0	oz	9.12						0.19	9.31		9.31
Surfactant	pt	1.32						0.03	1.35		1.35
Soybeans Consultant	acre	6.50						0.11	6.61		6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.94			0.12	6.82	7.28	14.10
Soybean Seed RR2X	lb	67.00						1.17	68.17		68.17
CruiserMaxx Vibrance	oz	7.36						0.13	7.49		7.49
Boundary	pt	20.90						0.37	21.27		21.27
Gramoxone SL 2.0	oz	9.12						0.16	9.28		9.28
Surfactant	pt	1.32						0.02	1.34		1.34
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.06	3.58		3.58
Engenia	oz	10.62						0.19	10.81		10.81
Dual Magnum	pt	10.02						0.18	10.20		10.20
Spray (Broadcast)	60'		1.03	0.48	0.95			0.04	2.50	1.90	4.40
Glyphosate 3lbs a.e	oz	3.52						0.05	3.57		3.57
Spray (Broadcast)	60'		0.51	0.24	0.47			0.01	1.23	0.95	2.18
Dimilin 2L	oz	1.70						0.02	1.72		1.72
Surfactant	pt	0.17							0.17		0.17
Spray (Broadcast)	60'		0.51	0.24	0.47			0.01	1.23	0.95	2.18
Bifenthrin	oz	0.90						0.01	0.91		0.91
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
Gramoxone SL	oz	3.04						0.02	3.06		3.06
Surfactant	pt	0.66							0.66		0.66
Header -Soybean	25' Flex		3.29	5.11	2.96			0.03	11.39	16.76	28.15
Haul Soybeans	bu	10.80						0.03	10.83		10.83
Grain Cart Soybean	700 bu		0.77	0.48	0.61			0.01	1.87	1.68	3.55
TOTALS		290.01	17.20	14.93	15.14	0.00		5.24	342.52	51.25	393.77

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 13.E Estimated monthly income and expense flows per acre
Soybeans, full-season, RR2X/XF, May planted, 16R 30"
Non-Delta Area, Mississippi, 2022

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	498.40
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0.00
HARVEST AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	44.62	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	16.25	0.00	31.87	54.18	3.52	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70	0.90	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	1.32	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	19.65
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33
LABOR	0.00	0.00	0.00	0.95	0.00	0.95	2.89	0.95	0.47	0.47	0.00	8.46
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	1.03	0.00	1.03	2.88	1.03	0.51	0.51	0.00	10.21
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.48	0.00	0.48	3.39	0.48	0.24	0.24	0.00	9.62
INTEREST ON OP. CAP.	0.00	0.00	0.00	0.51	0.00	1.79	2.55	0.09	0.03	0.02	0.06	0.19
TOTAL DIRECT EXPENSES	0.00	0.00	0.00	20.54	0.00	89.56	148.07	6.07	3.12	2.14	10.76	62.26
NET INCOME	0.00	0.00	0.00	-20.54	0.00	-89.56	-148.07	-6.07	-3.12	-2.14	-10.76	436.14
NET INCOME TO DATE	0.00	0.00	0.00	-20.54	-20.54	-110.10	-258.17	-264.24	-267.36	-269.50	-280.26	155.88

Note: Cost of production estimates are based on 2021 input prices.

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

* Lease costs are based on hourly usage costs.

Table 13.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, RR2X/XF, May planted, 16R 30"
 Non-Delta Area, Mississippi, 2022

PRODUCT	PERCENT												
	75	80	85	90	95	100	105	110	115	120	125		
PRODUCT PRICE													
Soybeans	9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57		
PERCENT	YIELD	UNIT	dollars										
50	20.00	bu	-150 -201	-137 -188	-125 -176	-112 -164	-100 -151	-87 -139	-75 -126	-62 -114	-50 -101	-38 -89	-25 -76
60	24.00	bu	-113 -165	-98 -150	-84 -135	-69 -120	-54 -105	-39 -90	-24 -75	-9 -60	5 -45	20 -30	35 -15
70	28.00	bu	-77 -128	-60 -111	-42 -93	-25 -76	-7 -59	9 -41	27 -24	44 -6	61 10	79 28	96 45
80	32.00	bu	-41 -92	-21 -72	-1 -52	18 -32	38 -12	58 7	78 27	98 46	118 66	138 86	158 106
90	36.00	bu	-5 -56	17 -33	39 -11	62 11	84 33	107 55	129 78	151 100	174 123	196 145	219 168
100	40.00	bu	31 -19	56 4	81 29	106 54	130 79	155 104	180 129	205 154	230 179	255 204	280 229
110	44.00	bu	67 16	94 43	122 71	149 98	177 125	204 153	232 180	259 208	286 235	314 263	341 290
120	48.00	bu	103 52	133 82	163 112	193 142	223 172	253 202	283 232	313 261	343 291	373 321	402 351
130	52.00	bu	140 88	172 121	204 153	237 186	269 218	302 250	334 283	366 315	399 348	431 380	464 412
140	56.00	bu	176 125	211 160	246 194	281 229	316 264	350 299	385 334	420 369	455 404	490 439	525 474
150	60.00	bu	212 161	250 198	287 236	324 273	362 311	399 348	437 385	474 423	511 460	549 497	586 535

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 2021 input prices.

Table 14.A Estimated costs per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Non-irrigated, All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	7.00	3.0000	21.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	27.75	0.8700	24.14	_____
Potash (60% K2O)	cwt	26.30	1.3300	34.98	_____
FUNGICIDES					
CruiserMaxx Vibrance	oz	4.60	1.6000	7.36	_____
HERBICIDES					
Boundary	pt	10.45	2.0000	20.90	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Glyphosate 3lbs a.e	oz	0.11	32.0000	3.52	_____
Engenia	oz	0.83	12.8000	10.62	_____
Dual Magnum	pt	10.02	1.0000	10.02	_____
INSECTICIDES					
Acephate 90SP	lb	8.58	0.7500	6.44	_____
Prevathon	oz	1.12	14.0000	15.68	_____
Bifenthrin	oz	0.86	6.4000	5.50	_____
IncidentalPestTrt \$8	acre	8.00	1.0000	8.00	_____
SEED/PLANTS					
Soybean Seed RR2X	lb	1.34	50.0000	67.00	_____
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	59.00	0.3330	19.65	_____
CROP CONSULTANT					
Soybeans Consultant	acre	6.50	1.0000	6.50	_____
INOCULANT					
Inoculant -Soybean	acre	1.55	1.0000	1.55	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	15.27	0.1002	1.53	_____
Harvesters	hour	15.27	0.1021	1.56	_____
HAND LABOR					
Implements	hour	9.06	0.0648	0.59	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL					
Tractors	gal	2.36	1.5477	3.65	_____
Harvesters	gal	2.36	1.3935	3.29	_____
REPAIR & MAINTENANCE					
Implements	acre	3.80	1.0000	3.80	_____
Tractors	acre	1.02	1.0000	1.02	_____
Harvesters	acre	4.16	1.0000	4.16	_____
INTEREST ON OP. CAP.	acre	5.73	1.0000	5.73	_____
TOTAL DIRECT EXPENSES				319.20	_____
FIXED EXPENSES					
Implements	acre	6.20	1.0000	6.20	_____
Tractors	acre	5.98	1.0000	5.98	_____
Harvesters	acre	15.44	1.0000	15.44	_____
TOTAL FIXED EXPENSES				27.62	_____
TOTAL SPECIFIED EXPENSES				346.82	_____

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 14.B Summary of estimated costs and returns per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Non-irrigated, All Areas, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Soybeans	bu	12.46	25.0000	311.50	_____

TOTAL INCOME				311.50	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	21.00	1.0000	21.00	_____
FERTILIZERS	acre	59.12	1.0000	59.12	_____
FUNGICIDES	acre	7.36	1.0000	7.36	_____
HERBICIDES	acre	54.18	1.0000	54.18	_____
INSECTICIDES	acre	35.62	1.0000	35.62	_____
SEED/PLANTS	acre	67.00	1.0000	67.00	_____
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	19.65	1.0000	19.65	_____
CROP CONSULTANT	acre	6.50	1.0000	6.50	_____
INOCULANT	acre	1.55	1.0000	1.55	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.0648	0.59	_____
OPERATOR LABOR	hour	15.27	0.2024	3.09	_____
UNALLOCATED LABOR	hour	15.28	0.1740	2.66	_____
DIESEL FUEL	gal	2.36	2.9413	6.94	_____
REPAIR & MAINTENANCE	acre	8.98	1.0000	8.98	_____
INTEREST ON OP. CAP.	acre	5.73	1.0000	5.73	_____

TOTAL DIRECT EXPENSES				319.20	_____
RETURNS ABOVE DIRECT EXPENSES				-7.70	_____
TOTAL FIXED EXPENSES				27.62	_____

TOTAL SPECIFIED EXPENSES				346.82	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-35.32	_____

Note: Cost of production estimates are based on 2021 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 14.C Estimated resource use for field operations, per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Non-irrigated, All Areas, Mississippi, 2022

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				
Spray (Broadcast)	60'	MFWD 300	0.028	1.00	Jul		0.02	0.02	0.04	0.02
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	25' Flex	265 hp	0.102	1.00	Oct		0.10	0.10	0.10	0.08
Haul Soybeans	bu					25.0000				
Grain Cart Soybean	700 bu	MFWD 300	0.021	1.00	Oct		0.02	0.02	0.02	0.01
TOTALS							0.20	0.20	0.26	0.17

Note: Cost of production estimates are based on 2021 input prices.

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

Table 14.D Estimated costs for field operations, per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Non-irrigated, All Areas, Mississippi, 2022

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						0.12	3.45		3.45
Lime (Spread)	ton	19.65						0.69	20.34		20.34
Custom Apply Fert	acre	7.50						0.26	7.76		7.76
Phosphorus (46% P2O5)	cwt	24.14						0.84	24.98		24.98
Potash (60% K2O)	cwt	34.98						1.22	36.20		36.20
Soybeans Consultant	acre	6.50						0.11	6.61		6.61
Plant & Pre-Folding	16R-30		1.85	2.91	1.91			0.10	6.77	7.28	14.05
Soybean Seed RR2X	lb	67.00						0.98	67.98		67.98
CruiserMaxx Vibrance	oz	7.36						0.11	7.47		7.47
Inoculant -Soybean	acre	1.55						0.02	1.57		1.57
Boundary	pt	20.90						0.30	21.20		21.20
Gramoxone SL 2.0	oz	9.12						0.13	9.25		9.25
Surfactant	pt	1.32						0.02	1.34		1.34
Spray (Broadcast)	60'		1.03	0.48	0.93			0.03	2.47	1.90	4.37
Glyphosate 3lbs a.e	oz	3.52						0.04	3.56		3.56
Engenia	oz	10.62						0.12	10.74		10.74
Dual Magnum	pt	10.02						0.12	10.14		10.14
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Acephate 90SP	lb	6.44						0.06	6.50		6.50
App by Air (5 gal)	appl	7.00						0.06	7.06		7.06
Prevathon	oz	15.68						0.14	15.82		15.82
Surfactant	pt	0.33							0.33		0.33
Bifenthrin	oz	5.50						0.05	5.55		5.55
Incidental Pest											
App by Air (5 gal)	appl	7.00						0.04	7.04		7.04
IncidentalPestTrt \$8	acre	8.00						0.05	8.05		8.05
Header -Soybean	25' Flex		3.29	5.11	2.90			0.03	11.33	16.76	28.09
Haul Soybeans	bu	6.75						0.02	6.77		6.77
Grain Cart Soybean	700 bu		0.77	0.48	0.60			0.01	1.86	1.68	3.54
TOTALS		291.21	6.94	8.98	6.34	0.00	5.73	319.20	27.62	346.82	

Note: Cost of production estimates are based on 2021 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year.** The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre.

Table 14.E Estimated monthly income and expense flows per acre
Soybeans, double crop after wheat, RR2X/XF, 16R 30"
Non-irrigated, All Areas, Mississippi, 2022

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	311.50
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	7.00	0.00
FERTILIZERS	59.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.36	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.02	24.16	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	27.62	8.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	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	19.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CROP CONSULTANT	0.00	0.00	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00
INOCULANT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	0.93	0.00	0.00	3.50
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.03	0.00	0.00	4.06
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.91	0.48	0.00	0.00	5.59
INTEREST ON OP. CAP.	3.13	0.00	0.00	0.00	0.00	0.00	0.11	1.66	0.31	0.37	0.09	0.06
TOTAL DIRECT EXPENSES	92.73	0.00	0.00	0.00	0.00	0.00	6.61	115.58	26.91	42.32	15.09	19.96
NET INCOME	-92.73	0.00	0.00	0.00	0.00	0.00	-6.61	-115.58	-26.91	-42.32	-15.09	291.54
NET INCOME TO DATE	-92.73	-92.73	-92.73	-92.73	-92.73	-92.73	-99.34	-214.92	-241.83	-284.15	-299.24	-7.70

Note: Cost of production estimates are based on 2021 input prices.

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 3rd year. Lime cost prorated for application every 3rd year. The budget does not include a second fungicide application to control Asian soybean rust, but the cost of treatment could range from \$10 to \$18 plus application cost per acre

* Lease costs are based on hourly usage costs.

Table 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, 2022

PRODUCT			PERCENT										
			75	80	85	90	95	100	105	110	115	120	125
Soybeans			9.34	9.96	10.59	11.21	11.83	12.46	13.08	13.70	14.32	14.95	15.57
PERCENT	YIELD	UNIT	dollars										
50	12.50	bu	-199 -226	-191 -218	-183 -211	-175 -203	-167 -195	-160 -187	-152 -179	-144 -172	-136 -164	-128 -156	-121 -148
60	15.00	bu	-176 -203	-166 -194	-157 -185	-148 -175	-138 -166	-129 -157	-120 -147	-110 -138	-101 -129	-92 -119	-82 -110
70	17.50	bu	-153 -181	-142 -170	-131 -159	-120 -148	-110 -137	-99 -126	-88 -115	-77 -104	-66 -94	-55 -83	-44 -72
80	20.00	bu	-130 -158	-118 -146	-106 -133	-93 -121	-81 -108	-68 -96	-56 -83	-43 -71	-31 -58	-18 -46	-6 -33
90	22.50	bu	-108 -135	-94 -121	-80 -107	-66 -93	-52 -79	-38 -65	-24 -51	-10 -37	3 -23	17 -9	31 4
100	25.00	bu	-85 -113	-70 -97	-54 -82	-38 -66	-23 -50	-7 -35	7 -19	23 -4	39 11	54 26	70 42
110	27.50	bu	-62 -90	-45 -73	-28 -56	-11 -39	5 -21	22 -4	39 12	57 29	74 46	91 63	108 80
120	30.00	bu	-40 -67	-21 -49	-2 -30	15 -11	34 6	53 25	71 44	90 63	109 81	128 100	146 119
130	32.50	bu	-17 -45	2 -24	22 -4	43 15	63 35	83 56	103 76	124 96	144 116	164 137	184 157
140	35.00	bu	5 -22	26 -0	48 21	70 42	92 64	114 86	135 108	157 130	179 151	201 173	223 195
150	37.50	bu	27 0	51 23	74 46	97 70	121 93	144 117	168 140	191 163	214 187	238 210	261 233

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 2021 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, 2022

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	391,000	300	8	13.64	15.27	32.19	40.72	88.18	151.14	239.33
Combine (300-349 hp)	325 hp	413,700	300	8	16.73	15.27	39.48	43.09	97.84	159.92	257.76
Combine (350-399 hp)	355 hp	437,900	300	8	18.27	15.27	43.11	45.61	104.00	169.27	273.27
Combine (400-449 hp)	425 hp	474,800	300	8	21.87	15.27	51.62	49.45	116.35	183.54	299.89
Combine (450-499hp)	475 hp	489,900	300	8	24.44	15.27	57.69	51.03	124.00	189.37	313.37
Tractor(20-39hp)CB	MFWD 30	28,600	600	8	1.54	15.27	3.64	0.89	19.80	5.01	24.81
Tractor(20-39hp)RB	MFWD 30	21,400	600	8	1.54	15.27	3.64	0.66	19.58	3.74	23.33
Tractor(40-59hp)CB	2WD 50	32,100	600	8	2.57	15.27	6.07	1.00	22.34	5.62	27.97
Tractor(40-59hp)CB	MFWD 50	42,600	600	8	2.57	15.27	6.07	1.33	22.67	7.46	30.13
Tractor(40-59hp)RB	2WD 50	23,300	600	8	2.57	15.27	6.07	0.72	22.07	4.08	26.15
Tractor(40-59hp)RB	MFWD 50	30,500	600	8	2.57	15.27	6.07	0.95	22.29	5.34	27.64
Tractor(60-89hp)CB	2WD 75	56,700	600	8	3.86	15.27	9.11	1.77	26.15	9.93	36.08
Tractor(60-89hp)CB	MFWD 75	60,500	600	8	3.86	15.27	9.11	1.89	26.27	10.59	36.87
Tractor(60-89hp)RB	2WD 75	43,100	600	8	3.86	15.27	9.11	1.34	25.72	7.55	33.27
Tractor(60-89hp)RB	MFWD 75	43,800	600	8	3.86	15.27	9.11	1.36	25.74	7.67	33.42
Tractor(90-119hp)CB	2WD 105	74,700	600	8	5.40	15.27	12.75	2.33	30.35	13.08	43.44
Tractor(90-119hp)CB	MFWD 105	94,500	600	8	5.40	15.27	12.75	2.95	30.97	16.55	47.53
Tractor(90-119hp)RB	2WD 105	67,100	600	8	5.40	15.27	12.75	2.09	30.12	11.75	41.87
Tractor(90-119hp)RB	MFWD 105	75,300	600	8	5.40	15.27	12.75	2.35	30.37	13.19	43.57
Tractor(120-139hp)CB	2WD 130	117,400	600	8	6.69	15.27	15.79	3.66	34.73	20.56	55.29
Tractor(120-139hp)CB	MFWD 130	131,100	600	8	6.69	15.27	15.79	4.09	35.15	22.96	58.12
Tractor(140-159hp)	2WD 150	116,100	600	8	7.72	15.27	18.22	3.62	37.11	20.34	57.45
Tractor(140-159hp)CB	MFWD 150	143,000	600	8	7.72	15.27	18.22	4.46	37.96	25.05	63.01
Tractor(160-179hp)CB	MFWD 170	164,000	600	8	8.75	15.27	20.65	5.12	41.04	30.21	71.26
Tractor(180-199hp)CB	MFWD 190	206,000	600	8	9.77	15.27	23.08	6.43	44.78	37.95	82.74
Tractor(200-249hp)CB	MFWD 225	248,000	600	8	11.58	15.27	27.33	7.75	50.35	45.69	96.04
Tractor(250-349hp)CB	4WD 300	343,000	600	8	15.44	15.27	36.44	10.71	62.43	63.19	125.62
Tractor(250-349hp)CB	MFWD 300	324,000	600	8	15.44	15.27	36.44	10.12	61.83	59.69	121.53
Tractor(250-349hp)CB	Track 300	329,000	600	8	15.44	15.27	36.44	10.28	61.99	60.61	122.60
Tractor(350-449hp)	Track 400	492,000	600	8	20.58	15.27	48.59	15.37	79.23	90.64	169.88
Tractor(350-449hp)CB	4WD 400	406,000	600	8	20.58	15.27	48.59	12.68	76.54	74.80	151.34
Tractor(450-550hp)CB	4WD 500	430,000	600	8	25.73	15.27	60.73	13.43	89.44	79.22	168.66
Tractor(450-550hp)CB	Track 500	496,000	600	8	25.73	15.27	60.73	15.50	91.50	91.38	182.88
Utility Vehicle	800 CC	12,200	200	8	0.70	15.27	1.96	1.90	19.14	7.07	26.21
Utility Vehicle	900 CC	15,800	200	8	1.00	15.27	2.81	2.46	20.54	9.16	29.71

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, 2022

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	6.27	7.82	10.79	24.89	40.05	64.95
Cotton Picker	4R-38 (350)	351,000	200	8	18.01	0.257	6.27	10.95	14.13	31.36	52.46	83.83
Cotton Picker	4R2x1 (350)	357,000	200	8	18.01	0.172	4.19	7.32	9.61	21.12	35.66	56.79
Cotton Picker	6R-30 (355)	465,000	200	8	18.27	0.218	5.31	9.41	15.85	30.57	58.84	89.42
Cotton Picker	6R-38 (355)	465,000	200	8	18.27	0.172	4.19	7.43	12.51	24.14	46.45	70.60
Cotton Picker/Modu	4R-38 (365)	536,000	200	8	20.58	0.257	6.27	12.52	21.58	40.38	80.11	120.50
Cotton Picker/Module	6R-30 (500)	854,000	200	8	25.73	0.218	5.31	13.25	29.12	47.68	108.07	155.76
Cotton Picker/Module	6R-38 (500)	854,000	200	8	25.73	0.172	4.19	10.46	22.99	37.65	85.32	122.97
Dry Applicator SP	70'300cuft	365,000	350	8	16.98	0.015	0.29	0.60	0.29	1.20	1.82	3.02
Sprayer 600-750gal	60' 175hp	216,000	350	8	9.00	0.017	0.34	0.37	0.20	0.92	1.26	2.18
Sprayer 600-825gal	80' 175hp	234,000	350	8	11.81	0.013	0.26	0.36	0.16	0.79	1.02	1.82
Sprayer 600-825gal	90' 250hp	328,000	350	8	12.73	0.011	0.23	0.35	0.20	0.79	1.27	2.06
Sprayer 800gal	100' 250hp	333,000	350	8	14.15	0.010	0.20	0.35	0.18	0.75	1.16	1.91
Sprayer 800gal	80' 250hp	300,000	350	8	12.86	0.013	0.26	0.40	0.21	0.87	1.31	2.18
Sprayer 1000-1400gal	90' 275hp	332,000	350	8	14.15	0.010	0.20	0.35	0.18	0.75	1.16	1.91
Sprayer 1000gal	100' 300hp	379,000	350	8	15.44	0.010	0.20	0.38	0.21	0.80	1.32	2.13
Sprayer 1200+gal	120' 300hp	401,000	350	8	15.44	0.008	0.17	0.32	0.18	0.68	1.17	1.85

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, 2022

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total	--Fixed--	Total		
			dollars	hours	years	hr/ac	-----\$/acre-----							
							Imp.	P.U.	Direct	Imp.	P.U.	Cost		
Bed-Paratill w/ro	4R-30	MFWD 225	18,700	150	12	0.204	3.12	5.58	1.37	1.58	11.66	2.20	9.33	23.20
Bed-Paratill w/ro	4R-38	MFWD 225	18,700	150	12	0.160	2.45	4.39	1.08	1.24	9.18	1.73	7.35	18.27
Bed-Paratill w/ro	6R-38	MFWD 225	25,500	150	12	0.107	1.64	2.93	0.99	0.83	6.40	1.58	4.91	12.90
Bed-Rip/Disk Fold.	8R-38	MFWD 190	49,200	300	20	0.073	1.11	1.68	0.17	0.47	3.45	0.76	2.77	6.98
Bed-Rip/Disk Fold.	12R-30	MFWD 225	69,800	300	20	0.061	0.94	1.68	0.21	0.47	3.31	0.91	2.81	7.04
Bed-Rip/Disk Fold.	12R-38	MFWD 225	69,800	300	20	0.046	0.70	1.26	0.16	0.35	2.48	0.68	2.11	5.28
Bed-Rip/Disk Rigid	4R-30	MFWD 190	22,600	300	20	0.184	2.82	4.26	0.20	1.19	8.48	0.88	7.01	16.38
Bed-Rip/Disk Rigid	4R-38	MFWD 190	22,600	300	20	0.146	2.24	3.38	0.16	0.94	6.73	0.70	5.56	13.00
Bed-Rip/Disk Rigid	6R-30	MFWD 190	31,200	300	20	0.123	1.88	2.84	0.19	0.79	5.71	0.81	4.67	11.20
Bed-Rip/Disk Rigid	6R-38	MFWD 190	31,200	300	20	0.097	1.48	2.24	0.15	0.62	4.50	0.64	3.69	8.84
Bed-Rip/Disk Rigid	8R-30	MFWD 190	41,700	300	20	0.139	2.12	3.20	0.28	0.89	6.51	1.22	5.27	13.01
Bed-Rip/Disk Rigid	8R-38	MFWD 190	41,700	300	20	0.073	1.11	1.68	0.15	0.47	3.42	0.64	2.77	6.84
Bed-Rip/Disk/Cond.	6-Row	MFWD 225	24,800	150	12	0.107	1.64	2.93	0.96	0.83	6.37	1.53	4.91	12.83
Bed-Rip/Disk/Cond.	8-Row	MFWD 225	33,000	150	12	0.080	1.23	2.20	0.96	0.62	5.02	1.53	3.69	10.25
Bed-Subsoil Fold	8R-38	MFWD 225	49,200	150	12	0.080	1.23	2.20	1.43	0.62	5.50	2.29	3.69	11.48
Bed-Subsoil Fold	8R-38 2x1	MFWD 225	69,800	150	12	0.053	0.82	1.46	1.35	0.41	4.06	2.16	2.45	8.68
Bed-Subsoil Fold	12R-38	MFWD 225	69,800	150	12	0.053	0.82	1.46	1.35	0.41	4.06	2.16	2.45	8.68
Bed-Subsoil Rigid	4R-30	MFWD 225	17,500	150	12	0.204	3.12	5.58	1.29	1.58	11.57	2.06	9.33	22.97
Bed-Subsoil Rigid	4R-38	MFWD 225	16,800	150	12	0.160	2.45	4.39	0.97	1.24	9.07	1.56	7.35	17.98
Bed-Subsoil Rigid	6R-30	MFWD 225	24,300	150	12	0.136	2.08	3.72	1.19	1.05	8.05	1.91	6.22	16.18
Bed-Subsoil Rigid	6R-38	MFWD 225	25,300	150	12	0.107	1.64	2.93	0.98	0.83	6.39	1.57	4.91	12.88
Bed-Subsoil Rigid	8R-30	MFWD 225	32,500	150	12	0.102	1.56	2.79	1.19	0.79	6.34	1.91	4.66	12.92
Bed-Subsoil Rigid	8R-38	MFWD 225	33,600	150	12	0.080	1.23	2.20	0.97	0.62	5.04	1.56	3.69	10.30
Bed/Disk (Hipper)	4R-38	MFWD 150	10,500	160	10	0.147	2.25	2.69	0.38	0.65	5.99	0.95	3.69	10.64
Bed/Disk (Hipper)	6R-38	MFWD 170	16,200	160	10	0.098	1.50	2.03	0.39	0.50	4.45	0.98	2.98	8.41
Bed/Disk (Hipper)	8R-30	MFWD 190	20,800	160	10	0.093	1.43	2.16	0.48	0.60	4.68	1.19	3.55	9.44
Bed/Disk (Hipper)	8R-38 2x1	MFWD 190	51,400	160	10	0.049	0.75	1.13	0.63	0.31	2.84	1.55	1.87	6.27
Bed/Disk (Hipper)	12R-30	MFWD 225	40,100	160	10	0.062	0.95	1.70	0.62	0.48	3.77	1.53	2.85	8.16
Bed/Disk (Hipper)	12R-38	MFWD 225	51,400	160	10	0.049	0.75	1.34	0.63	0.38	3.11	1.55	2.25	6.93
Bed/Disk (Hipper)	16R40	MFWD 300	60,800	160	10	0.035	0.54	1.28	0.53	0.35	2.72	1.32	2.11	6.15
Bed/Disk (Hipper) Fl	8R-38	MFWD 190	22,000	160	10	0.074	1.13	1.71	0.40	0.47	3.72	1.00	2.81	7.54
Bed/Disk (Hipper) Rd	8R-38	MFWD 190	22,700	160	10	0.074	1.13	1.71	0.42	0.47	3.73	1.03	2.81	7.58
Bed/Disk w/roller	8R-30	MFWD 190	26,900	160	10	0.093	1.43	2.16	0.63	0.60	4.82	1.54	3.55	9.93
Bed/Disk w/roller	8R-38	MFWD 190	30,800	160	10	0.074	1.13	1.71	0.57	0.47	3.88	1.40	2.81	8.10
Bed/Disk w/roller	12R-30/40	MFWD 225	50,900	160	10	0.062	0.95	1.70	0.79	0.48	3.94	1.95	2.85	8.75
Bed/Lister	4R-38	MFWD 150	18,100	160	8	0.228	3.48	4.16	0.96	1.02	9.63	2.85	5.72	18.21
Bed/Lister	6R-38	MFWD 150	20,400	160	8	0.120	1.83	2.19	0.57	0.53	5.13	1.69	3.01	9.84
Bed/Lister	8R-30	MFWD 190	24,900	160	8	0.114	1.74	2.63	0.66	0.73	5.78	1.96	4.33	12.07
Bed/Lister	8R-38	MFWD 190	25,000	160	8	0.090	1.37	2.08	0.52	0.58	4.57	1.55	3.42	9.55
Bed/Lister	8R-38 2x1	MFWD 190	40,400	160	8	0.060	0.91	1.38	0.56	0.38	3.26	1.67	2.28	7.21
Bed/Lister	12R-38	MFWD 225	40,400	160	8	0.060	0.91	1.64	0.56	0.46	3.59	1.67	2.74	8.01
Bed/Lister	16R-30	MFWD 225	54,700	160	8	0.035	0.53	0.96	0.45	0.27	2.21	1.32	1.60	5.15
Bed/Lister	16R40	MFWD 300	56,900	160	8	0.043	0.65	1.57	0.57	0.43	3.23	1.69	2.57	7.50
Bed/Lister-Roll-Fo	8R-38	MFWD 190	28,300	160	10	0.095	1.46	2.21	0.67	0.61	4.97	1.66	3.64	10.28
Bed/Lister-Roll-Fo	12R-30	MFWD 225	37,800	160	10	0.080	1.23	2.21	0.76	0.62	4.83	1.87	3.69	10.41
Bed/Lister-Roll-Fo	12R-38	MFWD 225	38,400	160	10	0.063	0.97	1.74	0.61	0.49	3.82	1.50	2.91	8.25
Bed/Lister-Roll-Fo	16R-30	MFWD 225	48,700	160	10	0.060	0.92	1.65	0.73	0.47	3.79	1.81	2.77	8.37
Bed/Lister-Roll-Ri	8R-38	MFWD 190	25,000	160	10	0.095	1.46	2.21	0.59	0.61	4.89	1.47	3.64	10.00
Blade-Box	6'-7'	MFWD 105	1,500	200	20	0.020	0.30	0.25	0.01	0.04	0.62	0.01	0.26	0.89
Blade-Box	8'-10'	MFWD 105	3,890	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Box	12'-16'	MFWD 105	6,190	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	6'-7'	MFWD 105	1,280	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	8'-10'	MFWD 105	4,010	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	12'-16'	MFWD 105	10,790	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boll Buggy	4R-38 (250)	MFWD 190	30,500	200	10	0.257	3.93	5.94	1.96	1.65	13.51	3.70	9.78	26.99
Boll Buggy	4R-38 (350)	MFWD 190	30,500	200	10	0.257	3.93	5.94	1.96	1.65	13.51	3.70	9.78	26.99
Boll Buggy	4R2x1 (350)	MFWD 190	30,500	200	10	0.172	2.63	3.97	1.31	1.10	9.03	2.47	6.53	18.04
Boll Buggy	6R-30 (355)	MFWD 190	30,500	200	10	0.218	3.33	5.03	1.66	1.40	11.43	3.13	8.28	22.85
Boll Buggy	6R-38 (355)	MFWD 190	30,500	200	10	0.172	2.63	3.97	1.31	1.10	9.03	2.47	6.53	18.04
Chisel Plow-Folding	24'	MFWD 190	45,200	150	12	0.076	1.16	1.76	1.24	0.49	4.67	1.99	2.90	9.56
Chisel Plow-Folding	32'	MFWD 225	58,400	150	12	0.057	0.88	1.57	1.21	0.44	4.12	1.94	2.63	8.71
Chisel Plow-Folding	42'	MFWD 225	67,000	150	12	0.044	0.67	1.20	1.06	0.34	3.28	1.70	2.01	6.99
Chisel Plow-Folding	50'	MFWD 225	88,800	150	12	0.036	0.56	1.01	1.18	0.28	3.04	1.89	1.68	6.63
Chisel Plow-Folding	61'	MFWD 225	102,400	150	12	0.030	0.46	0.82	1.12	0.23	2.64	1.79	1.38	5.82
Chisel Plow-Rigid	10'	MFWD 170	7,930	150	12	0.184	2.82	3.81	0.52	0.94	8.11	0.84	5.58	14.54
Chisel Plow-Rigid	15'	2WD 130	13,800	150	12	0.123	1.88	1.94	0.61	0.45	4.89	0.98	2.53	8.41
Chisel Plow-Rigid	20'	MFWD 225	13,400	150	12	0.102	1.56	2.80	0.49	0.79	5.66	0.79	4.69	11.15
Cultivate	4R-30	2WD 105	15,800	150	10	0.206	3.14	2.63	0.86	0.48	7.13	2.13	2.69	11.96
Cultivate	4R-38	2WD 105	16,000	150	10	0.162	2.47	2.07	0.69	0.34	5.58	1.70	1.90	9.19
Cultivate	6R-30	MFWD 150	19,700	150	10	0.137	2.09	2.50	0.72	0.61	5.94	1.77	3.44	11.16
Cultivate	6R-38	MFWD 150	20,600	150	10	0.108	1.65	1.97	0.59	0.48	4.71	1.46	2.71	8.90
Cultivate	8R-30	MFWD 190	25,100	150	10	0.103	1.57	2.38	0.69	0.66	5.30	1.69	3.91	10.91
Cultivate	8R-38	MFWD 190	30,200	150	10	0.073	1.12	1.70	0.59	0.47	3.89	1.45	2.79	8.14
Cultivate	8R-38 2x1	MFWD 190	46,300	150	10	0.054	0.82	1.25	0.67	0.34	3.10	1.64	2.06	6.80
Cultivate	12R-30	MFWD 225	45,300	150	10	0.068	1.04	1.87	0.83	0.53	4.29	2.04	3.14	9.47
Cultivate	12R-38	MFWD 225	46,300	150	10	0.054	0.82	1.48	0.67	0.42	3.40	1.64	2.48	7.53
Cultivate	16R-30	MFWD 225	65,500	150	10	0.051	0.78	1.40	0.90	0.39	3.49	2.21	2.35	8.06
Cultivate & Post	4R-30	2WD 105	21,100	150	10	0.220	4.35	2.80	1.23	0.46	8.86	3.04	2.58	14.48
Cultivate & Post	4R-38	2WD 105	21,300	150	10	0.173	3.42	2.20	0.98	0.36	6.98	2.41	2.03	11.44
Cultivate & Post	6R-30	MFWD 150	25,100	150	10	0.146	2.90	2.67	0.98	0.65	7.21	2.41	3.67	13.30

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2022 (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	6R-38	MFWD 150	25,900	150	10	0.115	2.29	2.10	0.79	0.51	5.71	1.96	2.90	10.58
Cultivate & Post	8R-30	MFWD 190	30,400	150	10	0.110	2.17	2.53	0.89	0.70	6.31	2.19	4.17	12.68
Cultivate & Post	8R-38	MFWD 190	35,500	150	10	0.086	1.72	2.00	0.82	0.55	5.11	2.02	3.30	10.43
Cultivate & Post	8R-38 2x1	MFWD 190	51,600	150	10	0.057	1.14	1.33	0.79	0.37	3.65	1.95	2.19	7.80
Cultivate & Post	12R-30	MFWD 225	50,600	150	10	0.073	1.45	2.00	0.98	0.56	5.01	2.43	3.35	10.79
Cultivate & Post	12R-38	MFWD 225	51,600	150	10	0.057	1.14	1.58	0.79	0.44	3.97	1.95	2.64	8.57
Cultivate & Post	16R-30	MFWD 225	70,800	150	10	0.055	1.08	1.50	1.03	0.42	4.05	2.55	2.51	9.12
Disk & Incorporate	14'	2WD 130	32,200	200	10	0.149	2.96	2.36	1.44	0.54	7.32	2.36	3.07	12.76
Disk & Incorporate	20'	MFWD 190	79,300	200	10	0.092	1.83	2.13	2.19	0.59	6.75	3.60	3.50	13.86
Disk & Incorporate	24'	MFWD 190	52,200	200	10	0.087	1.72	2.01	1.36	0.56	5.67	2.23	3.31	11.22
Disk & Incorporate	28'	MFWD 225	62,300	200	10	0.074	1.48	2.04	1.39	0.57	5.50	2.29	3.41	11.21
Disk & Incorporate	32'	MFWD 225	67,900	200	10	0.065	1.29	1.78	1.33	0.50	4.92	2.18	2.99	10.10
Disk Harrow	14'	2WD 130	26,900	180	10	0.140	2.14	2.21	1.04	0.51	5.92	2.06	2.88	10.86
Disk Harrow	20'	MFWD 190	47,100	180	10	0.098	1.49	2.26	1.28	0.63	5.68	2.52	3.72	11.93
Disk Harrow	24'	MFWD 190	46,900	180	10	0.081	1.24	1.88	1.06	0.52	4.73	2.09	3.10	9.93
Disk Harrow	28'	MFWD 225	56,900	180	10	0.070	1.07	1.91	1.10	0.54	4.64	2.17	3.20	10.02
Disk Harrow	32'	MFWD 225	62,600	180	10	0.061	0.93	1.67	1.06	0.47	4.15	2.09	2.80	9.06
Disk Harrow	42'	MFWD 225	110,100	180	10	0.046	0.71	1.27	1.43	0.36	3.78	2.81	2.13	8.73
Disk Harrow 40-100hp	14'	2WD 75	16,700	180	10	0.140	2.14	1.27	0.65	0.18	4.26	1.27	1.05	6.59
Disk Heavy	14'	MFWD 150	26,900	180	10	0.145	2.22	2.65	1.09	0.65	6.63	2.14	3.65	12.43
Disk Heavy	20'	MFWD 190	73,900	180	10	0.097	1.48	2.24	1.99	0.62	6.35	3.92	3.69	13.97
Disk Heavy	28'	MFWD 225	56,900	180	10	0.075	1.15	2.06	1.19	0.58	5.00	2.35	3.45	10.81
Disk Ripper	15'	MFWD 225	50,800	180	10	0.136	2.08	3.72	1.92	1.05	8.78	3.77	6.22	18.78
Ditcher		2WD 130	6,480	200	10	0.020	0.30	0.31	0.05	0.07	0.74	0.06	0.41	1.22
Ditcher (1m/160a)		2WD 130	6,480	200	10	0.009	0.14	0.14	0.02	0.03	0.34	0.02	0.19	0.57
Fert Appl (Liquid)	4R-38	MFWD 150	19,000	150	8	0.154	3.06	2.81	1.95	0.69	8.53	2.05	3.87	14.46
Fert Appl (Liquid)	6R-30	MFWD 170	19,800	150	8	0.130	2.59	2.70	1.72	0.67	7.69	1.81	3.95	13.47
Fert Appl (Liquid)	6R-38	MFWD 170	19,800	150	8	0.103	2.04	2.13	1.36	0.52	6.07	1.43	3.12	10.63
Fert Appl (Liquid)	8R-30	MFWD 190	20,100	150	8	0.098	1.94	2.26	1.31	0.63	6.15	1.38	3.72	11.27
Fert Appl (Liquid)	8R-38	MFWD 190	22,600	150	8	0.077	1.53	1.79	1.16	0.49	4.99	1.22	2.94	9.17
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	25,200	150	8	0.051	1.02	1.19	0.86	0.33	3.41	0.91	1.96	6.29
Fert Appl (Liquid)	12R-30	MFWD 225	25,900	150	8	0.078	1.55	2.14	1.35	0.60	5.66	1.42	3.58	10.68
Fert Appl (Liquid)	12R-38	MFWD 225	23,700	150	8	0.051	1.02	1.41	0.81	0.40	3.65	0.85	2.36	6.87
Field Cult & Inc	42'	MFWD 225	70,900	100	10	0.037	0.74	1.03	0.66	0.29	2.74	2.63	1.72	7.10
Field Cult & Inc	50'	MFWD 225	76,700	100	10	0.031	0.62	0.86	0.60	0.24	2.34	2.39	1.44	6.19
Field Cult & Inc Fld	24'	MFWD 170	37,200	100	10	0.066	1.30	1.36	0.61	0.33	3.62	2.41	1.99	8.04
Field Cult & Inc Fld	32'	MFWD 190	49,800	100	10	0.049	0.98	1.14	0.61	0.31	3.06	2.42	1.88	7.37
Field Cult & Inc Rdg	12'	2WD 150	18,200	100	10	0.132	2.61	2.40	0.60	0.47	6.10	2.36	2.68	11.16
Field Cultivate Fld	24'	MFWD 170	31,800	100	10	0.062	0.95	1.28	0.49	0.31	3.04	1.94	1.87	6.87
Field Cultivate Fld	32'	MFWD 190	44,400	100	10	0.046	0.71	1.07	0.51	0.30	2.60	2.03	1.77	6.41
Field Cultivate Fld	42'	MFWD 225	60,600	100	10	0.035	0.54	0.97	0.53	0.27	2.32	2.11	1.62	6.07
Field Cultivate Fld	50'	MFWD 225	67,600	100	10	0.029	0.45	0.81	0.50	0.23	2.00	1.98	1.36	5.35
Field Cultivate Rdg	12'	2WD 150	12,900	100	10	0.124	1.90	2.26	0.40	0.45	5.02	1.57	2.53	9.12
Grain Cart Corn	500 bu	MFWD 190	29,100	200	12	0.025	0.38	0.58	0.19	0.16	1.33	0.31	0.96	2.61
Grain Cart Corn	700 bu	MFWD 190	44,900	200	12	0.025	0.38	0.58	0.30	0.16	1.44	0.49	0.96	2.89
Grain Cart Corn	1000 bu	MFWD 225	59,400	200	12	0.025	0.38	0.69	0.40	0.19	1.68	0.65	1.15	3.48
Grain Cart Rice	500 bu	MFWD 190	29,100	200	12	0.062	0.95	1.44	0.49	0.40	3.29	0.78	2.37	6.45
Grain Cart Rice	700 bu	MFWD 190	44,900	200	12	0.055	0.83	1.26	0.66	0.35	3.13	1.06	2.08	6.28
Grain Cart Rice	1000 bu	MFWD 190	59,400	200	12	0.045	0.69	1.05	0.73	0.29	2.79	1.17	1.73	5.70
Grain Cart Soybean	500 bu	MFWD 190	29,100	200	12	0.025	0.38	0.58	0.20	0.16	1.34	0.32	0.96	2.63
Grain Cart Soybean	700 bu	MFWD 190	44,900	200	12	0.021	0.32	0.49	0.25	0.13	1.21	0.41	0.80	2.42
Grain Cart Soybean	1000 bu	MFWD 190	59,400	200	12	0.021	0.32	0.49	0.34	0.13	1.29	0.54	0.80	2.64
Grain Cart Wht/Sor	500 bu	MFWD 190	29,100	200	12	0.025	0.38	0.58	0.20	0.16	1.34	0.32	0.96	2.63
Grain Cart Wht/Sor	700 bu	MFWD 190	44,900	200	12	0.021	0.32	0.49	0.25	0.13	1.21	0.41	0.80	2.42
Grain Cart Wht/Sor	1000 bu	MFWD 190	59,400	200	12	0.021	0.32	0.49	0.34	0.13	1.29	0.54	0.80	2.64
Grain Drill	10'	2WD 130	28,700	150	8	0.188	4.58	2.97	2.02	0.69	10.28	3.59	3.87	17.76
Grain Drill	12'	2WD 130	28,200	150	8	0.157	3.82	2.48	1.66	0.57	8.54	2.94	3.23	14.72
Grain Drill	15'	MFWD 150	34,400	150	8	0.125	3.05	2.29	1.62	0.56	7.53	2.87	3.14	13.55
Grain Drill	20'	MFWD 170	41,900	150	8	0.094	2.29	1.94	1.48	0.48	6.20	2.62	2.84	11.68
Grain Drill	24'	MFWD 190	67,300	150	8	0.078	1.91	1.81	1.98	0.50	6.21	3.51	2.98	12.70
Grain Drill	30'	MFWD 225	68,900	150	8	0.062	1.52	1.71	1.62	0.48	5.35	2.87	2.87	11.10
Grain Drill	35'	MFWD 225	93,600	150	8	0.053	1.31	1.47	1.89	0.41	5.09	3.35	2.46	10.90
Grain Drill & Pre	10'	2WD 130	34,000	150	8	0.203	4.94	3.20	2.58	0.74	11.48	4.58	4.17	20.24
Grain Drill & Pre	12'	2WD 130	33,500	150	8	0.169	4.11	2.67	2.12	0.62	9.53	3.76	3.48	16.78
Grain Drill & Pre	15'	MFWD 150	39,800	150	8	0.135	3.29	2.46	2.02	0.60	8.38	3.58	3.39	15.35
Grain Drill & Pre	20'	MFWD 170	47,200	150	8	0.101	2.47	2.09	1.79	0.52	6.88	3.18	3.06	13.13
Grain Drill & Pre	24'	MFWD 190	72,600	150	8	0.084	2.05	1.95	2.30	0.54	6.86	4.08	3.21	14.15
Grain Drill & Pre	30'	MFWD 225	74,200	150	8	0.067	1.64	1.85	1.88	0.52	5.90	3.33	3.09	12.33
Grain Drill & Pre	35'	MFWD 225	104,000	150	8	0.058	1.41	1.58	2.26	0.44	5.70	4.01	2.65	12.37
Grain Drill & Pre T	8R-38	MFWD 225	57,000	150	8	0.062	1.52	1.71	1.34	0.48	5.07	2.38	2.87	10.33
Harrow - Folding	24'	MFWD 190	13,800	200	10	0.064	0.98	1.49	0.31	0.41	3.21	0.43	2.45	6.10
Harrow - Folding	30'	MFWD 190	15,300	200	10	0.051	0.79	1.19	0.27	0.33	2.59	0.38	1.96	4.94
Harrow - Folding	40'	MFWD 190	21,300	200	10	0.038	0.59	0.89	0.28	0.24	2.02	0.40	1.47	3.90
Harrow - Folding	48'	MFWD 225	26,000	200	10	0.032	0.49	0.88	0.29	0.25	1.92	0.41	1.47	3.81
Header - Corn	6R-30	265 hp	54,200	300	8	0.170	2.60	5.48	2.30	6.93	17.32	3.23	25.73	46.29
Header - Corn	6R-38	265 hp	53,800	300	8	0.134	2.05	4.32	1.80	5.47	13.66	2.53	20.31	36.51
Header - Corn	8R-30	265 hp	71,200	300	8	0.127	1.95	4.11	2.27	5.20	13.53	3.18	19.30	36.02
Header - Corn	8R-38	325 hp	72,200	300	8	0.100	1.54	3.98	1.82	4.35	11.70	2.55	16.14	30.40
Header - Corn	12R-20	325 hp	105,000	300	8	0.127	1.95	5.04	3.35	5.50	15.84	4.69	20.42	40.97
Header - Corn	12R-30	325 hp	118,000	300	8	0.085	1.30	3.36	2.51	3.66	10.84	3.52	13.61	27.97

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2022 (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-----							
Header - Draper (CL)	25' Rigid	265 hp	74,100	300	8	0.203	3.10	6.53	3.44	8.27	21.35	5.00	30.69	57.05
Header - Draper (CL)	30' Rigid	325 hp	78,600	300	8	0.169	2.58	6.68	3.04	7.29	19.60	4.42	27.06	51.09
Header - Draper (CL)	36' Rigid	355 hp	82,300	300	8	0.141	2.15	6.08	2.65	6.43	17.32	3.85	23.87	45.05
Header - Draper (CL)	40' Rigid	425 hp	86,900	300	8	0.126	1.93	6.55	2.52	6.27	17.29	3.66	23.29	44.25
Header - Draper (SL)	25' Rigid	325 hp	74,100	300	8	0.176	2.68	6.94	2.98	7.58	20.20	4.33	28.14	52.68
Header - Draper (SL)	30' Rigid	325 hp	78,600	300	8	0.146	2.23	5.79	2.64	6.32	16.99	3.83	23.45	44.27
Header - Draper (SL)	36' Rigid	355 hp	82,300	300	8	0.122	1.86	5.26	2.30	5.57	15.01	3.34	20.68	39.04
Header - Draper (SL)	40' Rigid	425 hp	86,900	300	8	0.110	1.67	5.67	2.19	5.44	14.98	3.17	20.18	38.35
Header -RiceStrp(CL)	20'	265 hp	50,600	300	8	0.253	3.87	8.17	3.21	10.33	25.59	4.50	38.36	68.46
Header -RiceStrp(CL)	24'	325 hp	54,000	300	8	0.211	3.23	8.35	2.85	9.11	23.55	4.00	33.82	61.38
Header -RiceStrp(CL)	32'	325 hp	60,800	300	8	0.158	2.42	6.26	2.41	6.83	17.93	3.37	25.37	46.68
Header -RiceStrp(SL)	20'	265 hp	50,600	300	8	0.220	3.35	7.08	2.78	8.96	22.18	3.90	33.25	59.33
Header -RiceStrp(SL)	24'	325 hp	54,000	300	8	0.183	2.79	7.23	2.47	7.90	20.41	3.46	29.31	53.20
Header -RiceStrp(SL)	32'	325 hp	60,800	300	8	0.137	2.09	5.42	2.09	5.92	15.54	2.92	21.98	40.46
Header -Soybean	22' Flex	265 hp	33,800	300	8	0.116	1.77	3.73	0.98	4.72	11.21	1.37	17.54	30.14
Header -Soybean	25' Flex	325 hp	37,000	300	8	0.102	1.56	4.03	0.94	4.40	10.94	1.32	16.33	28.60
Header -Soybean	30' Flex	325 hp	44,700	300	8	0.085	1.30	3.36	0.95	3.66	9.28	1.33	13.61	24.23
Header -Soybean	35' Flex	355 hp	52,200	300	8	0.072	1.11	3.14	0.95	3.32	8.54	1.33	12.35	22.23
Header Wheat/Sorghum	22' Rigid	265 hp	19,800	300	8	0.116	1.77	3.73	0.57	4.72	10.81	0.80	17.54	29.16
Header Wheat/Sorghum	25' Rigid	325 hp	25,400	300	8	0.102	1.56	4.03	0.64	4.40	10.64	0.90	16.33	27.89
Header Wheat/Sorghum	30' Rigid	325 hp	29,100	300	8	0.085	1.30	3.36	0.61	3.66	8.95	0.86	13.61	23.43
Land Plane	50'x16'	MFWD 190	11,100	200	10	0.151	2.31	3.50	0.33	0.97	7.12	0.82	5.75	13.71
Levee Pull & Seed	8 Blade	MFWD 170	12,000	100	10	0.003	0.05	0.07	0.00	0.01	0.15	0.04	0.10	0.30
Levee Pull (1m/80a)	8 blade	MFWD 170	8,760	100	10	0.003	0.05	0.07	0.00	0.01	0.15	0.03	0.10	0.29
Levee Splitter (1/80	32"	MFWD 150	3,860	100	10	0.004	0.06	0.07	0.00	0.01	0.16	0.01	0.10	0.28
Module Builder	4R-38 (250)	MFWD 190	34,700	200	10	0.257	6.27	5.94	2.23	1.65	16.11	4.21	9.78	30.11
Module Builder	4R-38 (350)	MFWD 190	34,700	200	10	0.257	6.27	5.94	2.23	1.65	16.11	4.21	9.78	30.11
Module Builder	4R2x1 (350)	MFWD 190	34,700	200	10	0.172	4.19	3.97	1.49	1.10	10.77	2.81	6.53	20.12
Module Builder	6R-30 (355)	MFWD 190	34,700	200	10	0.218	5.31	5.03	1.89	1.40	13.64	3.56	8.28	25.49
Module Builder	6R-38 (355)	MFWD 190	34,700	200	10	0.172	4.19	3.97	1.49	1.10	10.77	2.81	6.53	20.12
NT Grain Drill	10'	2WD 130	34,900	150	8	0.235	5.73	3.72	3.08	0.86	13.40	5.46	4.84	23.72
NT Grain Drill	12'	2WD 130	46,900	150	8	0.163	3.98	2.58	2.87	0.60	10.04	5.10	3.36	18.51
NT Grain Drill	15'	MFWD 150	56,900	150	8	0.130	3.18	2.38	2.79	0.58	8.95	4.95	3.28	17.18
NT Grain Drill	20'	MFWD 170	68,700	150	8	0.098	2.38	2.02	2.53	0.50	7.45	4.48	2.96	14.90
NT Grain Drill	24'	MFWD 190	98,000	150	8	0.081	1.99	1.88	3.00	0.52	7.41	5.33	3.10	15.85
NT Grain Drill	30'	MFWD 225	104,300	150	8	0.065	1.59	1.78	2.56	0.50	6.45	4.53	2.99	13.98
NT Grain Drill & Pre	10'	2WD 130	40,200	150	8	0.211	5.14	3.34	3.18	0.77	12.45	5.65	4.35	22.45
NT Grain Drill & Pre	12'	2WD 130	52,300	150	8	0.176	4.28	2.78	3.45	0.64	11.17	6.12	3.62	20.92
NT Grain Drill & Pre	15'	MFWD 150	62,200	150	8	0.141	3.43	2.56	3.28	0.63	9.92	5.82	3.53	19.28
NT Grain Drill & Pre	20'	MFWD 170	74,000	150	8	0.105	2.57	2.18	2.93	0.54	8.23	5.20	3.19	16.63
NT Grain Drill & Pre	24'	MFWD 190	103,000	150	8	0.088	2.14	2.03	3.40	0.56	8.15	6.03	3.34	17.52
NT Grain Drill & Pre	30'	MFWD 225	110,000	150	8	0.070	1.71	1.92	2.90	0.54	7.09	5.15	3.22	15.47
NT Plant&Pre-Folding	8R-38	MFWD 170	67,800	150	8	0.083	2.03	1.72	2.12	0.42	6.31	3.76	2.52	12.60
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	107,000	150	8	0.055	1.35	1.14	2.23	0.28	5.02	3.95	1.68	10.66
NT Plant&Pre-Folding	12R-20	MFWD 190	82,800	150	8	0.105	2.57	2.44	3.28	0.68	8.97	5.82	4.01	18.81
NT Plant&Pre-Folding	12R-30	MFWD 190	94,600	150	8	0.070	1.71	1.62	2.50	0.45	6.29	4.43	2.67	13.40
NT Plant&Pre-Folding	12R-38	MFWD 190	107,000	150	8	0.055	1.35	1.28	2.23	0.35	5.23	3.95	2.11	11.30
NT Plant&Pre-Folding	16R-30	MFWD 190	142,000	150	8	0.052	1.28	1.22	2.81	0.34	5.66	4.99	2.00	12.66
NT Plant&Pre-Folding	23R-15	MFWD 190	192,000	150	8	0.073	1.78	1.69	5.28	0.47	9.24	9.37	2.78	21.40
NT Plant&Pre-Folding	24R-20	MFWD 190	214,000	150	8	0.052	1.28	1.22	4.24	0.34	7.09	7.52	2.00	16.61
NT Plant&Pre-Folding	24R-30	MFWD 190	223,000	150	8	0.035	0.85	0.81	2.94	0.22	4.84	5.22	1.33	11.41
NT Plant&Pre-Folding	31R-15	MFWD 225	232,000	150	8	0.054	1.32	1.49	4.75	0.42	8.00	8.42	2.49	18.92
NT Plant&Pre-Folding	32R-15	MFWD 225	230,000	150	8	0.052	1.28	1.44	4.56	0.40	7.70	8.08	2.41	18.20
NT Plant&Pre-Rigid	4R-30	2WD 130	33,800	150	8	0.211	5.14	3.34	2.68	0.77	11.94	4.75	4.35	21.04
NT Plant&Pre-Rigid	4R-38	2WD 130	34,800	150	8	0.166	4.05	2.63	2.17	0.61	9.46	3.85	3.42	16.74
NT Plant&Pre-Rigid	6R-30	MFWD 150	43,600	150	8	0.141	3.43	2.56	2.30	0.63	8.93	4.08	3.53	16.55
NT Plant&Pre-Rigid	6R-38	MFWD 150	42,700	150	8	0.111	2.70	2.02	1.78	0.49	7.01	3.15	2.78	12.96
NT Plant&Pre-Rigid	8R-30	MFWD 170	54,200	150	8	0.105	2.57	2.18	2.14	0.54	7.44	3.80	3.19	14.45
NT Plant&Pre-Rigid	8R-38	MFWD 170	52,100	150	8	0.083	2.03	1.72	1.63	0.42	5.82	2.89	2.52	11.24
NT Plant&Pre-Rigid	11R-15	MFWD 170	65,100	150	8	0.143	3.50	2.97	3.51	0.73	10.72	6.22	4.34	21.29
NT Plant&Pre-Rigid	11R-20	MFWD 170	64,300	150	8	0.115	2.81	2.38	2.78	0.59	8.57	4.93	3.49	17.01
NT Plant&Pre-Rigid	12R-20	MFWD 190	66,600	150	8	0.105	2.57	2.44	2.64	0.68	8.33	4.68	4.01	17.03
NT Plant&Pre-Rigid	12R-30	MFWD 190	86,500	150	8	0.070	1.71	1.62	2.28	0.45	6.08	4.05	2.67	12.81
NT Plant&Pre-Rigid	15R-15	MFWD 190	87,300	150	8	0.113	2.75	2.61	3.70	0.72	9.79	6.56	4.29	20.65
NT Plant&Pre-TwinRow	12R-30/40	MFWD 225	173,000	150	8	0.055	1.35	1.52	3.61	0.43	6.91	6.40	2.54	15.86
NT Plant&Pre-TwinRow	8R-30/40	MFWD 225	134,900	150	8	0.083	2.03	2.28	4.22	0.64	9.19	7.49	3.82	20.51
NT Plant-Folding	8R-38	MFWD 170	62,500	150	8	0.077	1.88	1.60	1.81	0.39	5.70	3.22	2.34	11.28
NT Plant-Folding	8R-38 2x1	MFWD 170	96,300	150	8	0.051	1.25	1.06	1.86	0.26	4.45	3.30	1.56	9.32
NT Plant-Folding	12R-20	MFWD 190	77,500	150	8	0.098	2.38	2.26	2.85	0.63	8.14	5.05	3.72	16.92
NT Plant-Folding	12R-30	MFWD 190	84,300	150	8	0.065	1.59	1.51	2.06	0.42	5.59	3.66	2.48	11.74
NT Plant-Folding	12R-38	MFWD 190	96,300	150	8	0.051	1.25	1.19	1.86	0.33	4.65	3.30	1.96	9.92
NT Plant-Folding	16R-30	MFWD 190	132,000	150	8	0.049	1.19	1.13	2.43	0.31	5.07	4.30	1.86	11.24
NT Plant-Folding	23R-15	MFWD 190	182,000	150	8	0.068	1.65	1.57	4.65	0.43	8.32	8.24	2.58	19.16
NT Plant-Folding	24R-20	MFWD 190	204,000	150	8	0.049	1.19	1.13	3.75	0.31	6.40	6.65	1.86	14.92
NT Plant-Folding	24R-30	MFWD 190	208,000	150	8	0.032	0.79	0.75	2.55	0.21	4.31	4.52	1.24	10.08
NT Plant-Folding	31R-15	MFWD 225	222,000	150	8	0.050	1.23	1.38	4.22	0.39	7.24	7.48	2.31	17.05
NT Plant-Folding	32R-15	MFWD 225	219,000	150	8	0.049	1.19	1.34	4.03	0.38	6.95	7.14	2.24	16.34
NT Plant-Rigid	4R-30	2WD 130	28,400	150	8	0.196	4.77	3.10	2.09	0.72	10.69	3.70	4.04	18.44
NT Plant-Rigid	4R-38	2WD 130	29,500	150	8	0.154	3.76	2.44	1.71	0.56	8.48	3.03	3.18	14.69
NT Plant-Rigid	6R-30	MFWD 150	38,300	150	8	0.130	3.18	2.38	1.88	0.58	8.03	3.33	3.28	14.65

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2022 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M--- Imp. P.U.	Total Direct	--Fixed-- Imp. P.U.	Total Cost		
			dollars	hours	years	hr/ac	-----\$/acre-----							
NT Plant-Rigid	6R-38	MFWD 150	37,300	150	8	0.103	2.51	1.88	1.44	0.46	6.30	2.56	2.58	11.45
NT Plant-Rigid	8R-30	MFWD 170	48,900	150	8	0.098	2.38	2.02	1.80	0.50	6.72	3.19	2.96	12.88
NT Plant-Rigid	8R-38	MFWD 170	46,800	150	8	0.077	1.88	1.60	1.36	0.39	5.25	2.41	2.34	10.01
NT Plant-Rigid	11R-15	MFWD 170	59,700	150	8	0.133	3.25	2.75	2.99	0.68	9.68	5.30	4.03	19.02
NT Plant-Rigid	11R-20	MFWD 170	59,000	150	8	0.107	2.61	2.21	2.37	0.55	7.75	4.20	3.24	15.20
NT Plant-Rigid	12R-20	MFWD 190	61,200	150	8	0.098	2.38	2.26	2.25	0.63	7.54	3.99	3.72	15.26
NT Plant-Rigid	12R-30	MFWD 190	76,200	150	8	0.065	1.59	1.51	1.87	0.42	5.39	3.31	2.48	11.19
NT Plant-Rigid	15R-15	MFWD 190	77,000	150	8	0.105	2.55	2.42	3.03	0.67	8.68	5.37	3.98	18.05
NT Plant-TwinRow	12R-30/40	MFWD 225	163,000	150	8	0.051	1.25	1.41	3.15	0.40	6.23	5.59	2.36	14.19
NT Plant-TwinRow	8R-30/40	MFWD 225	130,000	150	8	0.077	1.88	2.12	3.78	0.60	8.39	6.70	3.54	18.65
Peanut Cond. & Lifter	6-Row	MFWD 190	15,200	300	20	0.100	1.52	2.30	0.25	0.64	4.73	0.33	3.79	8.86
Peanut Conditioner	6-Row	MFWD 190	18,500	300	20	0.100	1.52	2.30	0.37	0.64	4.84	0.35	3.79	8.99
Peanut Dig/Invertor	4R-30	MFWD 190	38,600	300	15	0.235	3.60	5.44	2.26	1.51	12.82	2.50	8.95	24.28
Peanut Dig/Invertor	4R-38	MFWD 190	38,600	300	15	0.186	2.84	4.29	1.78	1.19	10.12	1.97	7.06	19.17
Peanut Dig/Invertor	6R-38	MFWD 190	54,700	300	15	0.124	1.89	2.86	1.19	0.79	6.74	1.86	4.70	13.32
Peanut Dump Cart	6-Row	MFWD 190	57,400	300	20	0.310	4.73	7.15	1.03	1.99	14.92	3.76	11.76	30.45
Peanut Harvester	4R-30	MFWD 225	160,000	300	20	0.849	12.97	23.23	7.70	6.58	50.50	25.74	38.83	115.08
Peanut Harvester	4R-38	MFWD 225	160,000	300	20	0.934	14.27	25.54	8.47	7.24	55.53	29.98	42.70	128.21
Peanut Harvester	6R-38	MFWD 225	175,000	300	20	0.625	9.54	17.08	5.28	4.84	36.75	21.92	28.55	87.24
Peanut Lifter	6-Row	MFWD 225	7,440	300	20	0.100	1.52	2.73	0.15	0.77	5.18	0.14	4.56	9.89
Peanut Plt&Pre Fold.	12R-38	MFWD 190	94,300	150	8	0.080	1.95	1.85	2.84	0.51	7.17	5.03	3.05	15.26
Peanut Plt&Pre Rigid	8R-30	MFWD 190	46,000	150	8	0.152	3.71	3.52	2.63	0.98	10.86	4.67	5.79	21.33
Peanut Plt&Pre Rigid	8R-38	MFWD 190	43,900	150	8	0.120	2.93	2.78	1.98	0.77	8.49	3.52	4.58	16.59
Peanut Ptl&PreTwin	8R-30/40	MFWD 190	127,000	150	8	0.120	2.93	2.78	5.75	0.77	12.25	10.19	4.58	27.03
Pipe Spool 160ac	1/4m roll	2WD 130	6,500	15	12	0.003	0.10	0.04	0.01	0.01	0.17	0.11	0.06	0.35
Pipe Trailer 1m/160a	30'	2WD 130	1,980	100	15	0.003	0.19	0.05	0.00	0.01	0.26	0.00	0.07	0.35
Plant & Pre-Folding	8R-38	MFWD 170	59,600	150	8	0.080	1.95	1.65	1.79	0.41	5.81	3.17	2.42	11.42
Plant & Pre-Folding	8R-38 2x1	MFWD 170	94,300	150	8	0.053	1.30	1.10	1.88	0.27	4.56	3.34	1.61	9.53
Plant & Pre-Folding	12R-20	MFWD 190	70,600	150	8	0.101	2.47	2.34	2.68	0.65	8.15	4.76	3.85	16.77
Plant & Pre-Folding	12R-30	MFWD 190	82,400	150	8	0.067	1.64	1.56	2.09	0.43	5.73	3.70	2.56	12.01
Plant & Pre-Folding	12R-38	MFWD 190	94,300	150	8	0.053	1.30	1.23	1.88	0.34	4.76	3.34	2.02	10.14
Plant & Pre-Folding	16R-30	MFWD 190	126,000	150	8	0.050	1.23	1.17	2.39	0.32	5.13	4.25	1.92	11.31
Plant & Pre-Folding	23R-15	MFWD 190	169,000	150	8	0.070	1.71	1.62	4.46	0.45	8.26	7.91	2.67	18.86
Plant & Pre-Folding	24R-20	MFWD 190	190,000	150	8	0.050	1.23	1.17	3.61	0.32	6.35	6.41	1.92	14.68
Plant & Pre-Folding	24R-30	MFWD 190	198,000	150	8	0.033	0.82	0.78	2.51	0.21	4.33	4.45	1.28	10.07
Plant & Pre-Folding	31R-15	MFWD 225	200,000	150	8	0.052	1.27	1.43	3.93	0.40	7.05	6.97	2.39	16.42
Plant & Pre-Folding	32R-15	MFWD 225	197,000	150	8	0.050	1.23	1.38	3.75	0.39	6.76	6.64	2.31	15.73
Plant & Pre-Rigid	4R-30	2WD 130	29,700	150	8	0.203	4.94	3.20	2.26	0.74	11.15	4.00	4.17	19.34
Plant & Pre-Rigid	4R-38	2WD 130	30,800	150	8	0.159	3.89	2.52	1.84	0.58	8.84	3.27	3.28	15.41
Plant & Pre-Rigid	6R-30	MFWD 150	37,500	150	8	0.135	3.29	2.46	1.90	0.60	8.26	3.37	3.39	15.03
Plant & Pre-Rigid	6R-38	MFWD 150	36,600	150	8	0.106	2.60	1.94	1.46	0.47	6.49	2.59	2.67	11.76
Plant & Pre-Rigid	8R-30	MFWD 170	46,000	150	8	0.101	2.47	2.09	1.75	0.52	6.83	3.10	3.06	13.01
Plant & Pre-Rigid	8R-38	MFWD 170	43,900	150	8	0.080	1.95	1.65	1.32	0.41	5.34	2.34	2.42	10.11
Plant & Pre-Rigid	11R-15	MFWD 170	53,900	150	8	0.148	3.60	3.06	2.99	0.75	10.42	5.30	4.47	20.21
Plant & Pre-Rigid	11R-20	MFWD 170	53,100	150	8	0.110	2.69	2.29	2.20	0.56	7.76	3.91	3.35	15.03
Plant & Pre-Rigid	12R-20	MFWD 190	54,300	150	8	0.101	2.47	2.34	2.06	0.65	7.53	3.66	3.85	15.05
Plant & Pre-Rigid	12R-30	MFWD 190	74,200	150	8	0.067	1.64	1.56	1.88	0.43	5.52	3.33	2.56	11.43
Plant & Pre-Rigid	15R-15	MFWD 190	72,000	150	8	0.108	2.64	2.50	2.93	0.69	8.78	5.19	4.12	18.09
Plant & Pre-TwinRow	12R-30/40	MFWD 225	160,700	150	8	0.053	1.30	1.46	3.22	0.41	6.39	5.70	2.44	14.54
Plant & Pre-TwinRow	8R-30/40	MFWD 225	127,000	150	8	0.080	1.95	2.19	3.82	0.62	8.59	6.77	3.66	19.03
Plant - Folding	8R-38	MFWD 170	54,300	150	8	0.074	1.81	1.53	1.51	0.38	5.25	2.68	2.25	10.19
Plant - Folding	8R-38 2x1	MFWD 170	84,000	150	8	0.049	1.20	1.02	1.56	0.25	4.04	2.77	1.49	8.31
Plant - Folding	12R-20	MFWD 190	65,200	150	8	0.094	2.29	2.17	2.30	0.60	7.38	4.08	3.57	15.04
Plant - Folding	12R-30	MFWD 190	72,100	150	8	0.062	1.52	1.45	1.69	0.40	5.08	3.01	2.38	10.48
Plant - Folding	12R-38	MFWD 190	84,000	150	8	0.049	1.20	1.14	1.56	0.31	4.23	2.77	1.88	8.88
Plant - Folding	16R-30	MFWD 190	115,000	150	8	0.047	1.14	1.08	2.03	0.30	4.57	3.60	1.78	9.96
Plant - Folding	23R-15	MFWD 190	158,000	150	8	0.065	1.59	1.51	3.87	0.42	7.40	6.87	2.48	16.76
Plant - Folding	24R-20	MFWD 190	179,000	150	8	0.047	1.14	1.08	3.16	0.30	5.70	5.60	1.78	13.09
Plant - Folding	24R-30	MFWD 190	184,000	150	8	0.031	0.76	0.72	2.16	0.20	3.86	3.84	1.19	8.89
Plant - Folding	31R-15	MFWD 225	190,000	150	8	0.048	1.18	1.33	3.47	0.37	6.36	6.15	2.22	14.74
Plant - Folding	32R-15	MFWD 225	187,000	150	8	0.047	1.14	1.28	3.30	0.36	6.10	5.85	2.15	14.11
Plant - Rigid	4R-30	2WD 130	24,400	150	8	0.188	4.58	2.97	1.72	0.69	9.98	3.05	3.87	16.91
Plant - Rigid	4R-38	2WD 130	25,400	150	8	0.148	3.61	2.34	1.41	0.54	7.91	2.50	3.05	13.47
Plant - Rigid	6R-30	MFWD 150	32,200	150	8	0.125	3.05	2.29	1.51	0.56	7.42	2.69	3.14	13.26
Plant - Rigid	6R-38	MFWD 150	31,200	150	8	0.099	2.41	1.80	1.16	0.44	5.82	2.05	2.48	10.37
Plant - Rigid	8R-30	MFWD 170	40,700	150	8	0.094	2.29	1.94	1.43	0.48	6.16	2.55	2.84	11.56
Plant - Rigid	8R-38	MFWD 170	38,600	150	8	0.074	1.81	1.53	1.07	0.38	4.81	1.91	2.25	8.97
Plant - Rigid	11R-15	MFWD 170	48,500	150	8	0.137	3.34	2.84	2.50	0.70	9.39	4.43	4.15	17.99
Plant - Rigid	11R-20	MFWD 170	47,800	150	8	0.103	2.50	2.12	1.84	0.52	7.00	3.27	3.11	13.39
Plant - Rigid	12R-20	MFWD 190	49,000	150	8	0.094	2.29	2.17	1.73	0.60	6.80	3.07	3.57	13.45
Plant - Rigid	12R-30	MFWD 190	64,000	150	8	0.062	1.52	1.45	1.50	0.40	4.89	2.67	2.38	9.95
Plant - Rigid	15R-15	2WD 150	61,700	150	8	0.094	2.29	1.71	2.18	0.34	6.53	3.86	1.91	12.32
Plant - TwinRow	12R-30/40	MFWD 225	150,000	150	8	0.049	1.20	1.35	2.79	0.38	5.73	4.94	2.26	12.95
Plant - TwinRow	8R-30/40	MFWD 225	121,000	150	8	0.074	1.81	2.03	3.38	0.57	7.80	5.99	3.40	17.20
Roller/Cultipacker	12'	2WD 130	7,470	300	12	0.124	1.90	1.96	0.21	0.45	4.54	0.27	2.55	7.37
Roller/Cultipacker	20'	MFWD 150	12,500	300	12	0.074	1.14	1.36	0.22	0.33	3.05	0.27	1.87	5.20
Roller/Cultipacker	30'	MFWD 170	16,900	300	12	0.049	0.75	1.02	0.19	0.25	2.24	0.25	1.50	3.99
Roller/Cultipacker	38'	MFWD 225	24,200	300	12	0.039	0.60	1.07	0.22	0.30	2.20	0.28	1.79	4.28
Roller/Stubble	20'	2WD 50	14,600	300	12	0.074	1.14	0.45	0.25	0.05	1.90	0.32	0.30	2.53
Roller/Stubble	32'	MFWD 225	24,500	300	12	0.046	0.71	1.27	0.26	0.36	2.61	0.34	2.13	5.09

(continued)

Appendix Table 3. Towed Equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2022 (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-----							
Rotary Cutter	7'	MFWD 130	0	185	10	0.168	2.57	2.65	0.00	0.68	5.91	0.00	3.86	9.78
Rotary Cutter	12'	2WD 150	14,100	185	10	0.098	1.49	1.78	1.12	0.35	4.76	0.73	1.99	7.50
Rotary Cutter-Flex	15'	MFWD 150	21,800	185	10	0.078	1.19	1.43	1.38	0.35	4.37	0.91	1.96	7.24
Rotary Cutter-Flex	20'	MFWD 150	30,100	185	10	0.058	0.89	1.07	1.43	0.26	3.67	0.94	1.47	6.09
Row Cond & Inc-Fold.	26'	MFWD 190	29,200	100	10	0.063	1.25	1.46	0.46	0.40	3.59	1.82	2.40	7.82
Row Cond & Inc-Fold.	38'	MFWD 225	41,800	100	10	0.043	0.85	1.18	0.45	0.33	2.83	1.78	1.98	6.60
Row Cond & Inc-Rigid	13'	2WD 130	13,400	100	10	0.126	2.51	2.00	0.42	0.46	5.40	1.67	2.61	9.69
Row Cond & Inc-Rigid	21'	2WD 170	19,500	100	10	0.078	1.55	1.62	0.38	0.29	3.85	1.50	1.72	7.08
Row Cond & Inc-Rigid	26'	MFWD 190	23,900	100	10	0.026	0.52	0.61	0.15	0.17	1.47	0.62	1.00	3.10
Row Cond Folding	26'	MFWD 225	23,900	100	10	0.059	0.91	1.63	0.35	0.46	3.36	1.40	2.72	7.49
Row Cond Folding	38'	MFWD 225	31,500	100	10	0.040	0.62	1.11	0.32	0.31	2.37	1.26	1.86	5.51
Row Cond Rigid	13'	2WD 130	8,670	100	10	0.119	1.82	1.88	0.25	0.43	4.40	1.01	2.45	7.88
Row Cond Rigid	21'	2WD 170	14,200	100	10	0.073	1.12	1.52	0.26	0.27	3.19	1.03	1.62	5.84
Row Cond Rigid	26'	MFWD 190	18,600	100	10	0.059	0.91	1.37	0.27	0.38	2.95	1.09	2.26	6.31
Row Cond./Roll-Fol	30'	MFWD 190	46,200	160	10	0.062	0.95	1.44	0.72	0.40	3.52	1.77	2.37	7.66
Row Cond./Roll-Fold.	26'	MFWD 190	26,500	160	10	0.072	1.10	1.66	0.47	0.46	3.70	1.17	2.73	7.61
Row Cond./Roll-Fold.	40'	MFWD 225	34,000	160	10	0.046	0.71	1.28	0.39	0.36	2.75	0.97	2.14	5.88
Row Cond./Roll-Rig	21'	MFWD 190	25,800	160	10	0.089	1.36	2.06	0.57	0.57	4.57	1.41	3.38	9.37
Row Cond./Roll-Rig	26'	MFWD 190	28,400	160	10	0.072	1.10	1.66	0.51	0.46	3.74	1.25	2.73	7.73
Spin Spreader	5 ton	MFWD 190	14,500	100	8	0.042	1.02	0.97	0.34	0.27	2.60	0.64	1.59	4.84
Spray (ATV Ropewick)	75"	800 CC	720	200	8	0.260	5.15	0.51	0.08	0.49	6.25	0.09	1.84	8.19
Spray (ATV)	20'	800 CC	1,690	200	8	0.084	1.67	0.16	0.06	0.16	2.07	0.07	0.59	2.74
Spray (Band)	27' Fold	MFWD 170	5,300	200	8	0.062	1.24	1.29	0.15	0.32	3.01	0.17	1.89	5.08
Spray (Band)	40' Fold	MFWD 170	10,200	200	8	0.042	0.83	0.87	0.20	0.21	2.13	0.22	1.27	3.63
Spray (Band)	50' Fold	MFWD 170	9,160	200	8	0.033	0.67	0.69	0.14	0.17	1.68	0.16	1.02	2.87
Spray (Band)	60' Fold	MFWD 170	14,700	200	8	0.028	0.55	0.58	0.19	0.14	1.48	0.21	0.85	2.55
Spray (Bcast/HB)	13' Rigid	MFWD 150	8,500	200	8	0.130	2.57	2.37	0.51	0.58	6.05	0.58	3.26	9.89
Spray (Bcast/HB)	20' Rigid	MFWD 150	9,960	200	8	0.084	1.67	1.54	0.39	0.37	3.99	0.44	2.11	6.55
Spray (Bcast/HB)	27' Fold	MFWD 170	16,100	200	8	0.062	1.24	1.29	0.47	0.32	3.32	0.53	1.89	5.75
Spray (Bcast/HB)	27' Rigid	MFWD 170	11,700	200	8	0.062	1.24	1.29	0.34	0.32	3.20	0.38	1.89	5.47
Spray (Bcast/HB)	30' Fold	MFWD 170	17,100	200	8	0.056	1.11	1.16	0.45	0.28	3.02	0.50	1.70	5.23
Spray (Bcast/HB)	40' Fold	MFWD 170	19,900	200	8	0.042	0.83	0.87	0.39	0.21	2.32	0.44	1.27	4.04
Spray (Broadcast)	27'	MFWD 170	5,300	200	8	0.062	1.24	1.29	0.15	0.32	3.01	0.17	1.89	5.08
Spray (Broadcast)	40'	MFWD 170	10,200	200	8	0.042	0.83	0.87	0.20	0.21	2.13	0.22	1.27	3.63
Spray (Broadcast)	50'	MFWD 170	9,200	200	8	0.033	0.67	0.69	0.14	0.17	1.68	0.16	1.02	2.87
Spray (Broadcast)	60'	MFWD 170	14,700	200	8	0.028	0.55	0.58	0.19	0.14	1.48	0.21	0.85	2.55
Spray (Direct/Hood)	8R-30	MFWD 170	17,800	200	8	0.084	1.67	1.74	0.70	0.43	4.56	0.79	2.55	7.91
Spray (Direct/Hood)	8R-38	MFWD 170	18,700	200	8	0.066	1.32	1.38	0.58	0.34	3.63	0.65	2.02	6.31
Spray (Direct/Hood)	12R-30	MFWD 170	24,900	200	8	0.056	1.11	1.16	0.65	0.28	3.22	0.73	1.70	5.67
Spray (Direct/Hood)	12R-38	MFWD 170	26,100	200	8	0.044	0.88	0.91	0.54	0.22	2.57	0.61	1.34	4.53
Spray (Direct/Layby)	8R-30	MFWD 170	15,500	200	8	0.084	1.67	1.74	0.61	0.43	4.47	0.68	2.55	7.71
Spray (Direct/Layby)	8R-38	MFWD 170	15,500	200	8	0.066	1.32	1.38	0.48	0.34	3.53	0.54	2.02	6.10
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	22,900	200	8	0.044	0.88	0.91	0.47	0.22	2.50	0.53	1.34	4.38
Spray (Direct/Layby)	12R-30	MFWD 170	22,900	200	8	0.056	1.11	1.16	0.60	0.28	3.17	0.67	1.70	5.55
Spray (Direct/Layby)	12R-38	MFWD 170	22,900	200	8	0.044	0.88	0.91	0.47	0.22	2.50	0.53	1.34	4.38
Spray (Direct/Layby)	16R-20/30	MFWD 225	26,700	200	8	0.062	1.24	1.71	0.78	0.48	4.22	0.87	2.86	7.96
Spray (Levee Leaper)	50'	MFWD 225	13,400	200	8	0.033	0.67	0.92	0.21	0.26	2.07	0.23	1.54	3.85
Spray (Pull Type)	60'	MFWD 225	49,600	200	8	0.028	0.55	0.77	0.65	0.21	2.20	0.73	1.28	4.22
Spray (Pull Type)	80'	MFWD 225	53,300	200	8	0.021	0.41	0.57	0.52	0.16	1.68	0.59	0.96	3.24
Spray (Pull Type)	90'	MFWD 225	54,200	200	8	0.018	0.37	0.51	0.47	0.14	1.50	0.53	0.85	2.90
Spray (Pull Type)	120'	MFWD 225	84,300	200	8	0.014	0.27	0.38	0.55	0.10	1.33	0.62	0.64	2.59
Spray (Ropewick)	20'	MFWD 190	4,100	200	8	0.084	1.67	1.95	0.16	0.54	4.33	0.18	3.21	7.72
Spray (Spot)	27'	MFWD 170	5,300	200	8	0.062	1.24	1.29	0.15	0.32	3.01	0.17	1.89	5.08
Spray (Spot)	40'	MFWD 170	10,200	200	8	0.042	0.83	0.87	0.20	0.21	2.13	0.22	1.27	3.63
Spray (Spot)	50'	MFWD 170	9,200	200	8	0.033	0.67	0.69	0.14	0.17	1.68	0.16	1.02	2.87
Spray (Spot)	60'	MFWD 225	14,700	200	8	0.028	0.55	0.77	0.19	0.21	1.74	0.21	1.28	3.24
Stalk Shredder	14'	MFWD 150	18,400	200	10	0.117	1.79	2.14	1.89	0.52	6.37	1.06	2.95	10.39
Stalk Shredder Flex	20'	MFWD 150	33,100	200	10	0.082	1.25	1.50	2.38	0.36	5.52	1.34	2.06	8.93
Stalk Shredder-Flail	12'	MFWD 150	25,900	200	10	0.137	2.09	2.50	3.11	0.61	8.33	1.75	3.44	13.53
Stalk Shredder-Flail	15'	MFWD 150	26,000	200	10	0.110	1.67	2.00	2.50	0.49	6.67	1.40	2.75	10.83
Stalk Shredder-Flail	18'	MFWD 150	29,600	200	10	0.091	1.39	1.67	2.37	0.40	5.85	1.33	2.29	9.48
Stalk Shredder-Flail	20'	MFWD 150	31,700	200	10	0.082	1.25	1.50	2.28	0.36	5.42	1.28	2.06	8.77
Stalk Shredder-Flail	25'	MFWD 150	46,900	200	10	0.066	1.00	1.20	2.70	0.29	5.21	1.52	1.65	8.38
Strip Till	8R-38	MFWD 225	43,000	150	10	0.061	0.94	1.68	1.14	0.47	4.25	1.73	2.81	8.80
Strip Till	12R-30	MFWD 225	69,600	150	10	0.061	0.94	1.68	1.85	0.47	4.96	2.81	2.81	10.58
Strip Till	12R-40	MFWD 225	75,400	150	10	0.046	0.70	1.26	1.51	0.35	3.83	2.28	2.11	8.23
Subsoiler	3 shank	MFWD 190	6,500	100	15	0.204	3.12	4.71	0.44	1.31	9.59	0.99	7.75	18.34
Subsoiler	4 shank	MFWD 225	11,430	100	15	0.153	2.34	4.19	0.58	1.19	8.32	1.31	7.01	16.65
Subsoiler	5 shank	MFWD 225	14,630	100	15	0.122	1.86	3.34	0.59	0.94	6.75	1.34	5.59	13.69
Subsoiler low-till	6 shank	MFWD 225	20,000	100	15	0.102	1.56	2.79	0.68	0.79	5.82	1.53	4.66	12.02
Subsoiler low-till	8 shank	MFWD 225	21,400	100	15	0.076	1.16	2.09	0.54	0.59	4.39	1.22	3.49	9.12

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, 2022

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Apron Maxx RTA	oz	0.84
Agri-Dex	pt	1.75	Artisan	oz	0.23
AMS SuperMax	pt	3.81	Avaris	oz	1.68
Class Act NG	pt	4.75	Avicta Complete Bean	oz	0.26
Crop Oil Conc. (Pet.)	pt	2.86	Bravo Weather Stick	pt	4.12
Crop Oil Conc. (Veg.)	pt	2.90	Captan 50 WP	lb	6.59
Dyne-A-Pak	pt	4.13	Convoy	oz	1.17
Fire-Zone	pt	2.87	Cotton Seed Trt.	acre	20.00
Herbimax	pt	4.00	CruiserMaxx Vibrance	oz	4.60
Induce	pt	3.00	Elatus	oz	3.31
MSO	pt	4.38	Flint Extra	oz	8.75
Penetrator Plus	pt	2.58	Headline EC	oz	4.44
Surfactant	pt	3.30	Miravis Top	oz	1.34
CLEANING			Prior Xemium	oz	3.91
Cleaning Peanuts	ton	18.00	Propimax EC	pt	12.50
CROP CONSULTANT			Prosaro	oz	2.36
Corn Consultant	acre	6.00	Provost Optimum	oz	219.44
Cotton Consultant	acre	8.00	Quadris	oz	1.56
Peanut Consultant	acre	9.25	Quadris Top	oz	2.59
Rice Consultant	acre	8.00	Quadris Top SBX	oz	2.77
Sorghum Consultant	acre	6.00	Quilt	pt	20.23
Soybeans Consultant	acre	6.50	Quilt XCEL	pt	24.10
Wheat Consultant	acre	5.50	Stratego	pt	23.93
CUSTOM FERTILIZE			Stratego YLD	oz	3.46
App Fert by Air	cwt	7.50	Tilt 3.6 EC	oz	0.90
App Fert by Air (Mi)	appl	7.50	Tilt/ Bravo SE	oz	0.72
Custom Apply Fert	acre	7.50	Trivapro	oz	1.50
CUSTOM LIME			GINNING		
Lime (Spread)	ton	59.00	Gin & Haul	lb	0.11
CUSTOM PLANT			GROWTH REGULATORS		
Custom Plant	acre	7.50	Mepex	oz	0.09
Custom Plant Air	cwt	7.50	Mepichlor 4.2%	oz	0.09
CUSTOM SPRAY			Mepiquat	oz	0.21
App by Air (3 gal)	appl	5.60	Mepstar 6	oz	0.08
App by Air (5 gal)	appl	7.00	Palisade	oz	1.20
App by Air (10 gal)	appl	9.30	Pentia	oz	0.41
Custom Spray Ground	acre	7.00	Pix WSB	oz	1.32
DRYING			Stance	oz	1.27
Dry Corn	bu	0.19	Veto	oz	0.06
Dry Grain Sorghum	cwt	0.25	HARVEST AIDS		
Dry Peanuts	ton	24.00	Adios	oz	1.00
Dry Rice	bu	0.40	Boll Buster	oz	0.34
ERADICATION FEE			Def/Folex	pt	11.73
Eradication	acre	1.00	Defol 5	gal	8.54
FERTILIZERS			Display	oz	10.23
Agrotain Ultra	pt	11.30	Ethephon 6E	pt	3.89
Amm Sulfate (21% N)	cwt	19.88	Finish 6	pt	11.74
Boron Plus	pt	4.64	Folex 6EC	pt	11.74
DAP	cwt	35.88	Freefall SC	oz	1.63
Fert 10-34-0	cwt	31.55	Ginstar EC	pt	27.59
Fert 10-34-0	gal	3.68	Gramoxone SL	oz	0.19
Fert 11-37-0	cwt	26.26	Sharpen	oz	5.99
Fert 41-0-0-4	cwt	18.22	Sodium Chlorate 5L	gal	8.54
Lime	ton	49.00	SuperBoll	oz	0.24
NBPT	pt	12.93	Thidiazuron 4lb	oz	2.07
Phosphorus (46% P2O5)	cwt	27.75	Tribufos 6lb	pt	11.74
Potash (60% K2O)	cwt	26.30	Vacate	oz	1.39
Sulfur Plus	pt	2.62	HAULING		
UAN (32% N)	cwt	19.00	Haul Corn	bu	0.23
UAN (32%)	gal	2.10	Haul Peanuts	ton	14.50
UAN + Sulfur (28%)	cwt	18.45	Haul Rice	bu	0.35
UAN + Sulfur (28%)	gal	2.05	Haul Sorghum	bu	0.25
Urea, Solid (46% N)	cwt	28.63	Haul Soybeans	bu	0.27
Zinc Plus	pt	3.40	Haul Wheat	bu	0.26
FUNGICIDES			HERBICIDES		
Abound	oz	1.96	2,4-D Amine 4	pt	2.64
Alfa Guard	lb	1.26	2,4-D Ester	pt	2.41
Allegiance Flowabl	oz	3.35	AAtrex 4L	pt	1.90
Ameristar Top	oz	2.51	Accent Q	oz	18.15
Approach Prima	pt	28.00	Acuron	oz	0.51

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2022 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Aim	oz	5.79	Harmony Extra SG	oz	10.86
Anthem Flex	oz	3.57	Helmet	oz	0.41
Anthem Maxx	oz	5.38	Huskie	oz	0.82
Armezon Pro	oz	0.92	Impact	oz	15.32
Atrazine 4L	pt	1.67	Intimidator	oz	0.64
Atrazine 90DF	lb	3.36	Leadoff	oz	6.00
Authority First	lb	68.23	League	oz	4.39
Authority Elite	pt	13.75	Lexar	pt	6.79
Authority Maxx	lb	68.82	Liberty 280	oz	0.59
Authority MTZ	lb	20.63	Loyant	oz	2.29
Avatar	pt	9.62	Makaze	oz	0.21
Avenger	pt	11.75	Metolachlor	pt	5.02
Axial XL	oz	1.10	Metribuzin 4L	pt	8.25
Axiom	oz	2.06	Metribuzin 75	lb	14.73
Banvel	pt	4.81	MSMA	pt	3.42
Barrage	pt	5.36	Newpath	oz	3.84
Basagran	pt	5.43	Obey	oz	1.01
Boundary	pt	10.45	Osprey	oz	4.00
Brake	oz	1.48	Outlook	pt	13.88
Broadaxe	pt	13.95	Panther Pro	oz	6.61
Broadhead	lb	58.21	Parallel	pt	4.01
Buccaneer Plus	pt	2.97	Paraquat	oz	0.16
Bucril	pt	4.28	Parazone 3SL	oz	0.18
Butyrac 200 (2,4-DB)	pt	2.90	Permit	oz	21.96
Cadre	oz	3.33	Permit Plus	oz	21.96
Canopy	oz	2.91	PowerFlex	oz	7.00
Caparol	pt	4.87	Preface	oz	4.99
Capreno	oz	3.96	Prefix	pt	6.17
Cinch	pt	14.18	Provisia	oz	0.76
Cinch ATZ	pt	5.96	Prowl 3.3 EC	pt	5.69
Clarity	pt	11.00	Quelex	oz	7.42
Classic	oz	12.00	RealmQ	oz	5.34
Clearpath	oz	4.06	RebelEx	oz	2.00
Clethodim 2E	oz	0.50	Reflex	pt	6.71
Clincher SF	oz	2.56	Regiment	oz	45.50
Cobra	oz	1.23	Resicore	oz	0.60
Command 3ME	pt	18.00	Resource	oz	2.11
Corvus	oz	4.69	RiceBeaux	pt	5.38
Cotoran	pt	5.79	Riceshot	pt	4.92
Cotton Pro	pt	3.45	Ricestar HT	pt	26.88
Dicamba	pt	6.35	Ringside	pt	5.63
Direx	pt	2.44	Roundup Power Max	oz	0.20
Diuron	pt	3.50	Roundup PowerMax	pt	3.24
Dual II Magnum	pt	11.15	Roundup PowerMax ii	oz	0.19
Dual Magnum	pt	10.02	Roundup Pro	pt	0.20
Duet	pt	6.22	Scepter 70 DG	oz	4.64
Engenia	oz	0.83	Select Max	pt	12.73
Envive	oz	4.06	Sencor/Tricor.Metrib	lb	23.95
Envoke	oz	0.80	Sequence	pt	5.72
Facet L	pt	14.83	Sharpen	oz	5.99
Fierce	oz	6.50	Sinister	pt	13.77
Fierce XLT	oz	3.91	Sonic	oz	4.04
Finesse	oz	12.45	Stalwart	pt	3.82
Firestorm	pt	3.44	Stam 80 EDF	lb	9.45
First Rate	oz	37.79	Stam M4	qt	10.83
Flexstar	pt	7.34	Staple LX	oz	7.89
Flexstar GT	pt	4.73	Storm	pt	11.16
Fusilade DX	oz	0.88	Strada	oz	5.88
Gambit	oz	16.50	Strada Pro	oz	6.56
Glyphosate 3lbs a.e	pt	1.81	Strada XT2	pt	3.26
Glyphosate 3lbs a.e	oz	0.11	Superwham	qt	10.07
Goal 2XL	pt	8.69	Suprend	lb	13.52
Gramoxone SL 2.0	oz	0.19	SureStart II	oz	0.39
Grandstand R	pt	17.79	Surveil	oz	6.70
Grasp	oz	12.07	Synchrony XP	oz	11.26
Grasp Xtra	oz	1.61	Tempest	pt	19.50
Halex GT	pt	5.82	Touchdown Total	qt	10.21
Halomax	oz	21.11	Treflan	pt	2.50

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2022 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Trifluralin	pt	3.73	Malathion 8E	pt	9.84
Triflurex	pt	3.47	Mustang Max	oz	0.97
Ultra Blazer	pt	5.25	Nuprid 4F	oz	0.94
Valor EZ	oz	4.71	Oberon	oz	2.78
Valor SX	oz	3.60	Orthene 90	lb	11.15
Valor XLT	oz	3.45	Permethrin	oz	0.40
Vamos	pt	6.49	Portal XLO	oz	0.74
Verdict	oz	1.54	Pounce 25WP	lb	19.52
Veritas	pt	7.49	Prevathon	oz	1.05
Villain	pt	5.24	Python WDG	oz	19.80
Volunteer	pt	10.63	Radiant	oz	8.28
Warrant	pt	3.97	Sevin 4F	pt	56.11
XtendiMax	oz	0.42	Sevin XLR Plus	qt	16.01
Zidua DF	oz	8.76	Sivanto Prime	oz	3.24
Zidua SC	oz	4.93	Tempest	oz	1.70
INOCULANT			Transform WG	oz	7.63
Inoculant-Soybean	acre	1.55	Up-Cyde	oz	0.36
Optimize LIFT	oz	0.50	Warrior ZT	oz	2.74
INSECTICIDES			Zeal	oz	8.42
Abamectin .15EC	oz	1.75	IRRIGATION SUPPLIES		
Acephate 90%	lb	9.87	Roll-Out Pipe	ft	0.24
Acephate 90SP	lb	8.58	SEED/PLANTS		
Admire Pro	oz	1.57	Corn Seed BtRR	thous	3.75
Agri-Mek	oz	2.66	Corn Seed Conv.	thous	1.93
Asana .66 XL	oz	0.63	Corn Seed Op Leptra	thous	3.66
Avenger	oz	0.28	Corn Seed RR2	thous	3.25
Baythroid XL	oz	1.04	Corn Seed VT2P	thous	3.63
Belt	oz	6.80	Cot. Seed B3XF/W3FE	thous	2.59
Besiege	oz	2.38	Cotton Seed B3XF	thous	2.59
Bidrin 8EC	oz	1.34	Cotton Seed GLB2	thous	2.05
Bifenthrin	oz	0.86	Cotton Seed W3FE	thous	2.59
Bifenture 2EC	oz	0.51	Cotton Seed W3RF	thous	1.98
Brigade EC	pt	18.77	Peanut Seed	lb	0.84
Capture LFR	oz	1.37	Rice Conv Hyb Trt	lb	6.60
Centric 40WG	oz	4.97	Rice Fullpage Hyb Tr	lb	7.37
Cypermethrin	oz	1.31	Rice Seed CF(Levees)	lb	1.03
Declare	oz	1.95	Rice Seed Clearfield	lb	1.03
Diamond .83EC	oz	1.28	Rice Seed Conv.	lb	0.32
Dimethoate 4E	pt	5.65	Rice Seed Cv(Levees)	lb	0.32
Dimilin 2L	oz	1.70	Rice Seed CvH(Levee)	lb	1.93
Endigo	oz	1.53	Rice Seed FPH(Levee)	lb	2.67
Force 3G	lb	7.28	Rice Seed Provisia	lb	1.25
Hero	oz	1.09	Rice Seed Trt/Insect	lbseed	0.29
Imidacloprid 4F	oz	0.78	Sorghum Concept	lb	3.10
Imidan 70 WSB	oz	0.79	Sorghum Concept+ Po	lb	3.72
IncidentalPestTrt \$8	acre	8.00	Soybean Enlist E3	lb	1.20
IncidentalPestTrt\$15	acre	15.00	Soybean Seed LL	lb	1.16
IncidentalPestTrt\$22	acre	22.00	Soybean Seed RR2	lb	1.16
IncidentalPestTrt\$30	acre	30.00	Soybean Seed RR2X	lb	1.34
Intrepid 2F	oz	1.91	Wheat Seed Private	lb	0.28
Intruder 70WSP	oz	1.13	SOIL TEST		
Lambda	oz	1.88	Soil Test	acre	10.00
Lannate LV	pt	9.30	SURVEY & MARK LEVEES		
Macho	oz	0.47	Survey & Mark Levees	acre	4.50
			Survey & Mark Levees	acre	4.50

Appendix Table 5. Estimated fuel prices
and interest rates, Mississippi, 2022

ITEM NAME	UNIT	PRICE
dollars		
FUEL TYPES		
Diesel Fuel	gal	2.36
Gasoline	gal	2.81
INTEREST RATES		
Short-term	%	3.50
Intermediate-term	%	4.00

Appendix Table 6. Labor types, wage rates and unallocated labor
Multipliers for crop enterprises, Mississippi, 2022

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	15.27
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, 2022

Crop	unit	Futures Contract Month	Futures Contract Price ^a	Basis ^b	Forward Contract Price ^c	Loan Rate ^d	Budget Price ^e
Corn	bu	Dec '22	5.31	-0.14	5.17	2.35	5.17
Cotton Lint	lb	Dec '22	0.87	-0.016	0.8544	0.52	0.8544
Cottonseed	lb						0.11 ^f
Grain Sorghum	bu				4.91	4.09	4.91
Peanuts	ton				430.00	354.89	430.00
Soybeans	bu	Nov '22	12.45	0.01	12.46	6.41	12.46
Rice	bu	Nov '22	6.16	-0.36	5.80	3.21	5.80
Wheat	bu	Jul '22	7.44	0.16	7.28	3.60	7.28

- ^a Average of the daily closing futures contract prices during the first 5 trading days in October 2021 for the stated contract months.
- ^b Basis is the cash price minus the futures contract price for the stated contract month. The reported basis is a daily average from 2009 to 2020 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.
- ^c 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.
- ^d Average Mississippi County CCC Loan Rate for 2021 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2021 Farm-stored Loan Rate for long grain rough rice. National 2020 Upland Cotton Marketing Assistance Loan Base Rate for cotton lint.
- ^e Price used in MSU Extension Service Planning Budgets.
- ^f 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, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL			
-----dollars-----											
Land Plane	50'x16'		0.88	0.32	0.58			0.06	1.84	1.65	3.49
Set Up Engine											
IRRIGATE LABOR	hour				0.23				0.23		0.23
Ditcher (1m/160a)			0.19	0.07	0.14				0.40	0.31	0.71
Roll-Out Pipe	ft	7.92						0.09	8.01		8.01
Lay Roll-out Pipe											
Pipe Spool 160ac	1/4m roll		0.26	0.11	0.42			0.01	0.80	0.85	1.65
IRRIGATE LABOR	hour				1.81			0.02	1.83		1.83
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		0.39	0.17	0.63				1.19	1.27	2.46
Land Forming (\$450)	each									28.81	28.81
Well & Pump, Furrow	each			2.96				0.03	2.99	7.88	10.87
Main Line Pipe	each									4.36	4.36
Engine, RPF, ESB	each									8.23	8.23
1st June Irrigation	ac-in		5.77	1.40				0.08	7.25		7.25
2nd June Irrigation	ac-in		5.77	1.40				0.08	7.25		7.25
July Irrigation	ac-in		5.77	1.40				0.06	7.23		7.23
TOTALS		7.92	19.03	7.83	4.50	0.00	0.43		39.71	53.36	93.07

Note: Cost of production estimates are based on 2021 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, 2022

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		0.33	0.11	0.25			0.01	0.70	1.33
Survey & Mark Levees	acre	2.25						0.03	2.28	2.28
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.44	0.15	0.33			0.01	0.93	1.76
Butt Levees										
Blade-Box	6'-7'		0.41	0.11	0.31			0.01	0.84	1.45
IRRIGATE LABOR	hour				0.68			0.01	0.69	0.69
Apply Water										
IRRIGATE LABOR	hour				0.11				0.11	0.11
Tear Down Levees										
Levee Splitter (1/80)	32"		0.34	0.10	0.25			0.01	0.70	1.26
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.44	0.15	0.33			0.01	0.93	1.76
Butt Levees										
Blade-Box	6'-7'		0.41	0.11	0.31			0.01	0.84	1.45
IRRIGATE LABOR	hour				0.68			0.01	0.69	0.69
Apply Water										
IRRIGATE LABOR	hour				0.11				0.11	0.11
Tear Down Levees										
Levee Splitter (1/80)	32"		0.34	0.10	0.25			0.01	0.70	1.26
Build Inside Levees										
Levee Pull (1m/80a)	8 blade		0.44	0.15	0.33			0.01	0.93	1.76
Butt Levees										
Blade-Box	6'-7'		0.41	0.11	0.31			0.01	0.84	1.45
IRRIGATE LABOR	hour				0.68			0.01	0.69	0.69
Apply Water										
IRRIGATE LABOR	hour				0.11				0.11	0.11
Tear Down Levees										
Levee Splitter (1/80)	32"		0.34	0.10	0.25			0.01	0.70	1.26
Tear Down Levees										
Levee Splitter (1/80)	32"		0.26	0.07	0.19				0.52	0.95
Land Forming (\$113)	each								7.23	7.23
Well & Pump, Flood	each			5.91				0.09	6.00	21.76
Engine, CF, 75	each								16.46	16.46
June Irrigation	ac-in		8.65	2.80				0.17	11.62	11.62
July Irrigation	ac-in		8.65	2.80				0.13	11.58	11.58
August Irrigation	ac-in		8.65	2.80				0.10	11.55	11.55
TOTALS		2.25	30.11	15.57	5.93	0.00		0.66	54.52	101.03

Note: Cost of production estimates are based on 2021 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, 2022

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			0.27	0.27
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			0.13	8.73	31.65
Well & Pump, 1/2 CP	each			1.13			0.02	1.15	3.02
Engine, 1/2 CP, 174	each								4.44
June Irr. 3app@.75"	ac-in		11.62	0.68			0.18	12.48	12.48
July Irr. 4app@.75"	ac-in		15.49	0.91			0.19	16.59	16.59
Aug Irr. 3app@.75"	ac-in		11.62	0.68			0.11	12.41	12.41
TOTALS		0.00	38.73	12.00	0.47	0.00	0.63	51.83	39.11

Note: Cost of production estimates are based on 2021 input prices.

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