

**SOYBEANS
2019
PLANNING BUDGETS**

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

October 2018

Foreword

This report is designed to provide necessary planning data to farmers, research and extension staffs, lending agencies, and others in agriculture. Readers are cautioned that returns presented are labeled "**Returns Above Specified Expenses.**" Estimated costs for land, management, and general farm overhead are not included in this report. The exception is unallocated labor, which is included. "**Returns Above Direct Expenses**" should be used in making 2019 planning decisions. This would be a one-year short-run decision. Decisions beyond one year, or long-run decisions, should be based on "**Returns Above Specified Expenses.**"

Acknowledgments

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

Special appreciation is expressed to producers who provided information on crop practices used. Appreciation also is expressed to farm supply dealers, equipment dealers, custom operators, and chemical companies who provided prices for crop production inputs. The Mississippi Agricultural Statistics Service is commended for its excellence in collecting price and production practice data.

Acknowledgment is made to the Mississippi State University Extension Service, the Mississippi Agricultural and Forestry Experiment Station, and the United States Agricultural Research Service staffs for the excellent cooperation that made this report possible.

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

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2019 Planning Budgets

Budgets for Agricultural Enterprises

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

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

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

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

Methods and Procedures

Production Practices

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

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

Machinery

Machinery manufacturers form the basis for machinery prices used in these publications. Prices by size of equipment are determined from the most common sales in each category as reported by machinery dealers. Prices used in the budgets reflect prices paid by farmers in 2018. (Appendix Tables 1, 2, and 3).

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

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

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

Estimates of Direct Costs

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

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

$$RPA = RPH \times PR$$

where:

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

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

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

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

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

Estimates of Fixed Costs

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

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

where:

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

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

where:

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

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

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

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

where:

CRCPH = Capital recovery charge per hour

HAU = Hours of annual use

CRCPA = Capital recovery charge per acre

PR = Performance rate

Estimates of Returns

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

To estimate returns, a price for the commodity must be used. Individual producers must determine their own expected price for the commodity. Commodity prices used in this report represent the higher of a calculated forward contract price or the loan rate that was applicable for the 2018 crop year. Government payments for commodities are not included in the budgets except to the extent that they are included in loan rates.

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

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

Irrigation Costs

Estimated costs of various irrigation systems are presented in Appendix Tables 8, 9, and 10. A dryland crop budget may be converted to an irrigated crop budget by adding the appropriate direct and fixed costs to the costs of the dryland crop. Also, adjustments in crop yields and other costs may be required with the addition of supplemental irrigation.

Net Returns

Net returns are generally considered to be the amount left after subtracting all costs from all incomes for a particular enterprise. In these budgets, "RETURNS ABOVE DIRECT EXPENSES" and "RETURNS ABOVE TOTAL SPECIFIED EXPENSES" are used as a proxy for the economic concepts of net returns above variable costs and net returns above variable plus fixed costs, respectively. Some items are intentionally left out of these calculations, i.e., costs for land or land rent, taxes, insurance premiums, general farm overhead, and expected incomes from government payments or insurance payments. These costs and incomes vary widely among farms and farm situations so as to make routine calculation for representative situations impractical. These items should, however, be considered by each producer and factored into the final budget each producer develops for his own situation.

Enterprise Budgets

Table 1.A Estimated costs per acre
Soybeans, full-season, RR2, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt \$8 | acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2 | lb | 1.34 | 50.0000 | 67.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.0000 | 3.59 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 42.0000 | 11.34 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.3302 | 4.69 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0959 | 0.87 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.3738 | 5.32 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 3.8252 | 9.94 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.94 | 1.0000 | 4.94 | _____ |
| Tractors | acre | 1.97 | 1.0000 | 1.97 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| INTEREST ON OP. CAP. | acre | 11.69 | 1.0000 | 11.69 | _____ |
| TOTAL DIRECT EXPENSES | | | | 357.05 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 11.12 | 1.0000 | 11.12 | _____ |
| Tractors | acre | 13.61 | 1.0000 | 13.61 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| TOTAL FIXED EXPENSES | | | | 38.54 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 395.59 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Non-irrigated, Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR | |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|------|
| | | | | | | -----hours----- | | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | | |
| Subsoiler | 3 shank | MFWD 225 | 0.204 | 0.20 | Oct | | 0.04 | 0.04 | 0.04 | 0.03 | |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | | |
| Phosphorus(46% P2O5) | cwt | | | | | 0.8700 | | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | | |
| Disk Harrow | 24' | MFWD 225 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 | |
| Field Cultivate Fld | 24' | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 | |
| App by Air (5 gal) | appl | | | 1.00 | Feb | 1.0000 | | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | | |
| Select Max | pt | | | | | 1.0000 | | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Apr | | 0.06 | 0.06 | 0.13 | 0.06 | |
| Soybean Seed RR2 | lb | | | | | 50.0000 | | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | | |
| Boundary | pt | | | | | 2.0000 | | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | | |
| Prefix | pt | | | | | 2.0000 | | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | | |
| Zidua | oz | | | | | 1.5000 | | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | | |
| Incidental Pest | | | | 1.00 | Aug | | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Sep | | 0.08 | 0.08 | 0.08 | 0.07 | |
| Haul Soybeans | bu | | | | | 42.0000 | | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 | |
| TOTALS | | | | | | | | 0.41 | 0.41 | 0.51 | 0.37 |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|-------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Subsoiler | 3 shank | | 1.23 | 0.32 | 1.10 | | | 0.16 | 2.81 | 1.90 | 4.71 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Disk Harrow | 24' | | 2.46 | 1.46 | 2.21 | | | 0.37 | 6.50 | 5.64 | 12.14 |
| Field Cultivate Fld | 24' | | 1.87 | 0.81 | 1.69 | | | 0.26 | 4.63 | 4.65 | 9.28 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.26 | 6.76 | | 6.76 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.18 | 4.66 | | 4.66 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.19 | 4.99 | | 4.99 |
| Select Max | pt | 12.71 | | | | | | 0.51 | 13.22 | | 13.22 |
| Valor SX | oz | 9.14 | | | | | | 0.37 | 9.51 | | 9.51 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.44 | | | 0.20 | 7.03 | 6.93 | 13.96 |
| Soybean Seed RR2 | lb | 67.00 | | | | | | 2.01 | 69.01 | | 69.01 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | | 6.66 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Prefix | pt | 13.06 | | | | | | 0.33 | 13.39 | | 13.39 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | | 6.00 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 11.34 | | | | | | 0.06 | 11.40 | | 11.40 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.57 | | | 0.01 | 1.56 | 1.30 | 2.86 |
| TOTALS | | 309.51 | 13.64 | 10.12 | 12.09 | 0.00 | 11.69 | 357.05 | 38.54 | 395.59 | |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 390.60 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 31.13 | 0.00 | 29.62 | 35.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.94 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.34 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 1.78 | 0.00 | 0.00 | 0.00 | 2.87 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 5.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 1.70 | 0.00 | 0.00 | 0.00 | 4.34 |
| REPAIR & MAINTENANCE | 2.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.76 | 0.00 | 0.00 | 0.00 | 4.42 |
| INTEREST ON OP. CAP. | 5.04 | 0.00 | 0.00 | 0.00 | 1.57 | 0.00 | 3.40 | 1.15 | 0.00 | 0.00 | 0.41 | 0.12 |
| TOTAL DIRECT EXPENSES | 88.93 | 0.00 | 0.00 | 0.00 | 40.64 | 0.00 | 116.69 | 47.49 | 0.00 | 0.00 | 40.21 | 23.09 |
| NET INCOME | -88.93 | 0.00 | 0.00 | 0.00 | -40.64 | 0.00 | -116.69 | -47.49 | 0.00 | 0.00 | -40.21 | 367.51 |
| NET INCOME TO DATE | -88.93 | -88.93 | -88.93 | -88.93 | -129.57 | -129.57 | -246.26 | -293.75 | -293.75 | -293.75 | -333.96 | 33.55 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Non-irrigated, Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 5.0000 | 32.50 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt \$8 | acre | 8.00 | 1.0000 | 8.00 | _____ |
| IRRIGATION SUPPLIES | | | | | |
| Roll-Out Pipe | ft | 0.25 | 33.0000 | 8.25 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2 | lb | 1.34 | 50.0000 | 67.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.1000 | 3.95 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 60.0000 | 16.20 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4713 | 6.70 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.3000 | 2.73 | _____ |
| Implements | hour | 9.06 | 0.0625 | 0.57 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0959 | 0.87 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.22 | 0.4301 | 6.12 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 5.2753 | 13.70 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| Roll-Out Pipe Irr. | gal | 2.60 | 7.3316 | 19.05 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 5.60 | 1.0000 | 5.60 | _____ |
| Tractors | acre | 2.74 | 1.0000 | 2.74 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| Roll-Out Pipe Irr. | acre | 6.89 | 1.0000 | 6.89 | _____ |
| INTEREST ON OP. CAP. | acre | 13.20 | 1.0000 | 13.20 | _____ |
| TOTAL DIRECT EXPENSES | | | | 435.02 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 13.59 | 1.0000 | 13.59 | _____ |
| Tractors | acre | 18.92 | 1.0000 | 18.92 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| Roll-Out Pipe Irr. | acre | 61.50 | 1.0000 | 61.50 | _____ |
| TOTAL FIXED EXPENSES | | | | 107.82 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 542.84 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 60.0000 | 558.00 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 558.00 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 32.50 | 1.0000 | 32.50 | _____ |
| HARVEST AIDS | acre | 5.64 | 1.0000 | 5.64 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 96.35 | 1.0000 | 96.35 | _____ |
| INSECTICIDES | acre | 13.94 | 1.0000 | 13.94 | _____ |
| IRRIGATION SUPPLIES | acre | 8.25 | 1.0000 | 8.25 | _____ |
| SEED/PLANTS | acre | 67.00 | 1.0000 | 67.00 | _____ |
| ADJUVANTS | acre | 3.96 | 1.0000 | 3.96 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 16.20 | 1.0000 | 16.20 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.0959 | 0.87 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.3625 | 3.30 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.5564 | 7.91 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.4301 | 6.12 | _____ |
| DIESEL FUEL | gal | 2.60 | 14.0313 | 36.45 | _____ |
| REPAIR & MAINTENANCE | acre | 18.44 | 1.0000 | 18.44 | _____ |
| INTEREST ON OP. CAP. | acre | 13.20 | 1.0000 | 13.20 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 435.02 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 122.98 | _____ |
| | | | | ----- | |
| TOTAL FIXED EXPENSES | | | | 107.82 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 542.84 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | 15.16 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Subsoiler | 3 shank | MFWD 225 | 0.204 | 0.20 | Oct | | 0.04 | 0.04 | 0.04 | 0.03 |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus(46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Disk Harrow | 24' | MFWD 225 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Bed/Lister-Roll-Fold | 12R-30 | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Feb | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Apr | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed RR2 | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Jul | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Aug | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Sep | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 60.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| Roll-Out Pipe Irr. | acre | | | | Jul | 1.0000 | 0.07 | 0.07 | 0.44 | |
| TOTALS | | | | | | | 0.55 | 0.55 | 1.01 | 0.43 |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Subsoiler | 3 shank | | 1.23 | 0.32 | 1.10 | | | 0.16 | 2.81 | 1.90 | 4.71 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Disk Harrow | 24' | | 2.46 | 1.46 | 2.21 | | | 0.37 | 6.50 | 5.64 | 12.14 |
| Field Cultivate Fld | 24' | | 1.87 | 0.81 | 1.69 | | | 0.26 | 4.63 | 4.65 | 9.28 |
| Bed/Lister-Roll-Fold | 12R-30 | | 1.88 | 0.83 | 1.69 | | | 0.26 | 4.66 | 3.91 | 8.57 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.26 | 6.76 | | 6.76 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.18 | 4.66 | | 4.66 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.19 | 4.99 | | 4.99 |
| Select Max | pt | 12.71 | | | | | | 0.51 | 13.22 | | 13.22 |
| Valor SX | oz | 9.14 | | | | | | 0.37 | 9.51 | | 9.51 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.44 | | | 0.20 | 7.03 | 6.93 | 13.96 |
| Soybean Seed RR2 | lb | 67.00 | | | | | | 2.01 | 69.01 | | 69.01 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | | 6.66 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Prefix | pt | 13.06 | | | | | | 0.33 | 13.39 | | 13.39 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.29 | 19.54 | | 19.54 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | | 6.00 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 16.20 | | | | | | 0.08 | 16.28 | | 16.28 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.57 | | | 0.01 | 1.56 | 1.30 | 2.86 |
| Roll-Out Pipe Irr. | acre | 8.25 | 20.93 | 7.49 | 4.42 | | | 0.83 | 41.92 | 65.37 | 107.29 |
| TOTALS | | 348.73 | 36.45 | 18.44 | 18.20 | 0.00 | 13.20 | 435.02 | 107.82 | 542.84 | |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 558.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 19.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 19.25 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 31.13 | 0.00 | 29.62 | 35.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.94 | 0.00 |
| IRRIGATION SUPPLIES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.25 | 0.00 | 0.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 0.00 | 0.00 | 0.36 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.20 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 7.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 2.01 | 2.81 | 0.23 | 0.00 | 3.48 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 8.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 1.70 | 13.19 | 6.35 | 0.00 | 4.77 |
| REPAIR & MAINTENANCE | 3.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.76 | 5.73 | 1.31 | 0.00 | 4.55 |
| INTEREST ON OP. CAP. | 5.41 | 0.00 | 0.00 | 0.00 | 1.57 | 0.00 | 3.40 | 1.16 | 0.59 | 0.51 | 0.41 | 0.15 |
| TOTAL DIRECT EXPENSES | 95.52 | 0.00 | 0.00 | 0.00 | 40.64 | 0.00 | 116.69 | 47.73 | 30.57 | 34.51 | 40.21 | 29.15 |
| NET INCOME | -95.52 | 0.00 | 0.00 | 0.00 | -40.64 | 0.00 | -116.69 | -47.73 | -30.57 | -34.51 | -40.21 | 528.85 |
| NET INCOME TO DATE | -95.52 | -95.52 | -95.52 | -95.52 | -136.16 | -136.16 | -252.85 | -300.58 | -331.15 | -365.66 | -405.87 | 122.98 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2 | lb | 1.34 | 50.0000 | 67.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.1000 | 3.95 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 53.0000 | 14.31 | _____ |
| SURVEY & MARK LEVEES | | | | | |
| Survey & Mark Levees | acre | 4.50 | 0.5000 | 2.25 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4582 | 6.49 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.3125 | 2.82 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1100 | 1.00 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.22 | 0.3065 | 4.36 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 4.3236 | 11.27 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| Contour Flood Irr. | gal | 2.60 | 10.9974 | 28.59 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.85 | 1.0000 | 4.85 | _____ |
| Tractors | acre | 2.35 | 1.0000 | 2.35 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| Contour Flood Irr. | acre | 13.80 | 1.0000 | 13.80 | _____ |
| INTEREST ON OP. CAP. | acre | 12.54 | 1.0000 | 12.54 | _____ |
| TOTAL DIRECT EXPENSES | | | | 412.15 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 10.31 | 1.0000 | 10.31 | _____ |
| Tractors | acre | 16.21 | 1.0000 | 16.21 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| Contour Flood Irr. | acre | 48.51 | 1.0000 | 48.51 | _____ |
| TOTAL FIXED EXPENSES | | | | 88.84 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 500.99 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 53.0000 | 492.90 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 492.90 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 26.00 | 1.0000 | 26.00 | _____ |
| HARVEST AIDS | acre | 5.64 | 1.0000 | 5.64 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 77.97 | 1.0000 | 77.97 | _____ |
| INSECTICIDES | acre | 13.94 | 1.0000 | 13.94 | _____ |
| SEED/PLANTS | acre | 67.00 | 1.0000 | 67.00 | _____ |
| ADJUVANTS | acre | 3.96 | 1.0000 | 3.96 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 14.31 | 1.0000 | 14.31 | _____ |
| SURVEY & MARK LEVEES | acre | 2.25 | 1.0000 | 2.25 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.1100 | 1.00 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.3125 | 2.82 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.5433 | 7.70 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.3065 | 4.36 | _____ |
| DIESEL FUEL | gal | 2.60 | 16.7455 | 43.56 | _____ |
| REPAIR & MAINTENANCE | acre | 24.21 | 1.0000 | 24.21 | _____ |
| INTEREST ON OP. CAP. | acre | 12.54 | 1.0000 | 12.54 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 412.15 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 80.75 | _____ |
| TOTAL FIXED EXPENSES | | | | 88.84 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 500.99 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | -8.09 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------------|---------------|----------------|----------------|
| | | | | | | | -----hours----- | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Nov | | 0.08 | 0.08 | 0.08 | 0.07 |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Feb | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 190 | 0.067 | 1.00 | May | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed RR2 | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Jun | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Jul | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Sep | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 53.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| Contour Flood Irr. | acre | | | | Jul | 1.0000 | 0.20 | 0.20 | 0.51 | |
| TOTALS | | | | | | | 0.54 | 0.54 | 0.96 | 0.30 |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|--------------|--------------|--------------|-------------|--------------|---------------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.34 | 6.05 | 5.36 | 11.41 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.10 | 2.22 | 1.43 | 3.65 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.20 | 4.68 | | 4.68 |
| Select Max | pt | 12.71 | | | | | | 0.57 | 13.28 | | 13.28 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Valor SX | oz | 9.14 | | | | | | 0.41 | 9.55 | | 9.55 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 1.72 | 2.32 | 2.44 | | | 0.19 | 6.67 | 6.70 | 13.37 |
| Soybean Seed RR2 | lb | 67.00 | | | | | | 2.01 | 69.01 | | 69.01 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.06 | 2.03 | 1.34 | 3.37 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.13 | 4.61 | | 4.61 |
| Prefix | pt | 13.06 | | | | | | 0.39 | 13.45 | | 13.45 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 | 3.36 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.13 | 6.63 | | 6.63 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.39 | 19.64 | | 19.64 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | | 6.03 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 14.31 | | | | | | 0.07 | 14.38 | | 14.38 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 | 2.67 |
| Contour Flood Irr. | acre | 2.25 | 33.23 | 14.96 | 5.69 | | | 1.15 | 57.28 | 56.19 | 113.47 |
| TOTALS | | 315.96 | 43.56 | 24.21 | 15.88 | 0.00 | 12.54 | 412.15 | 88.84 | 500.99 | |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 492.90 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 6.50 | 13.00 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 19.25 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 26.33 | 0.00 | 0.00 | 47.16 | 4.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.00 | 1.44 | 0.00 | 0.36 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.31 |
| SURVEY & MARK LEVEES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 2.21 | 0.00 | 0.00 | 0.89 | 0.00 | 0.00 | 3.78 | 2.73 | 1.61 | 1.61 | 0.18 | 2.87 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 2.08 | 0.00 | 0.00 | 0.85 | 0.00 | 0.00 | 2.44 | 11.95 | 10.86 | 10.86 | 0.28 | 4.24 |
| REPAIR & MAINTENANCE | 1.42 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 2.68 | 9.32 | 2.96 | 2.96 | 0.08 | 4.41 |
| INTEREST ON OP. CAP. | 4.59 | 0.00 | 0.00 | 1.34 | 0.00 | 0.00 | 4.18 | 0.77 | 0.83 | 0.41 | 0.29 | 0.13 |
| TOTAL DIRECT EXPENSES | 81.04 | 0.00 | 0.00 | 31.23 | 0.00 | 0.00 | 143.58 | 31.50 | 42.37 | 28.28 | 28.19 | 25.96 |
| NET INCOME | -81.04 | 0.00 | 0.00 | -31.23 | 0.00 | 0.00 | -143.58 | -31.50 | -42.37 | -28.28 | -28.19 | 466.94 |
| NET INCOME TO DATE | -81.04 | -81.04 | -81.04 | -112.27 | -112.27 | -112.27 | -255.85 | -287.35 | -329.72 | -358.00 | -386.19 | 80.75 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| Prevathon | oz | 1.32 | 14.0000 | 18.48 | _____ |
| Bifenthrin | oz | 0.76 | 6.4000 | 4.86 | _____ |
| IncidentalPestTrt \$8 | acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2 | lb | 1.34 | 50.0000 | 67.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.6000 | 2.15 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 50.0000 | 13.50 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.1171 | 1.66 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.0518 | 0.47 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0817 | 0.74 | _____ |
| UNALLOCATED LABOR | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 1.3567 | 3.53 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| 1/2-mi Pivot Irr. | gal | 2.60 | 16.4057 | 42.66 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 3.26 | 1.0000 | 3.26 | _____ |
| Tractors | acre | 0.70 | 1.0000 | 0.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| 1/2-mi Pivot Irr. | acre | 11.57 | 1.0000 | 11.57 | _____ |
| INTEREST ON OP. CAP. | acre | 10.15 | 1.0000 | 10.15 | _____ |
| TOTAL DIRECT EXPENSES | | | | 384.10 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 6.31 | 1.0000 | 6.31 | _____ |
| Tractors | acre | 4.83 | 1.0000 | 4.83 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| 1/2-mi Pivot Irr. | acre | 47.36 | 1.0000 | 47.36 | _____ |
| TOTAL FIXED EXPENSES | | | | 74.02 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 458.12 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 50.0000 | 465.00 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 465.00 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 26.00 | 1.0000 | 26.00 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 47.16 | 1.0000 | 47.16 | _____ |
| INSECTICIDES | acre | 37.28 | 1.0000 | 37.28 | _____ |
| SEED/PLANTS | acre | 67.00 | 1.0000 | 67.00 | _____ |
| ADJUVANTS | acre | 2.16 | 1.0000 | 2.16 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 13.50 | 1.0000 | 13.50 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.0817 | 0.74 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.0518 | 0.47 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.2193 | 3.11 | _____ |
| UNALLOCATED LABOR | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | gal | 2.60 | 19.1560 | 49.81 | _____ |
| REPAIR & MAINTENANCE | acre | 19.14 | 1.0000 | 19.14 | _____ |
| INTEREST ON OP. CAP. | acre | 10.15 | 1.0000 | 10.15 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 384.10 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 80.90 | _____ |
| TOTAL FIXED EXPENSES | | | | 74.02 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 458.12 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | 6.88 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Jun | | 0.06 | 0.06 | 0.13 | 0.05 |
| Soybean Seed RR2 | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Jul | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Prevathon | oz | | | | | 14.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| Bifenthrin | oz | | | | | 6.4000 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.08 |
| Haul Soybeans | bu | | | | | 50.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| 1/2-mi Pivot Irr. | acre | | | | Jul | 1.0000 | | | 0.05 | |
| TOTALS | | | | | | | 0.21 | 0.21 | 0.35 | 0.18 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus(46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.40 | | | 0.17 | 6.96 | 6.93 | 13.89 |
| Soybean Seed RR2 | lb | 67.00 | | | | | | 1.67 | 68.67 | | 68.67 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.17 | 7.02 | | 7.02 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.04 | 1.59 | | 1.59 |
| Boundary | pt | 22.42 | | | | | | 0.56 | 22.98 | | 22.98 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.18 | 7.38 | | 7.38 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.88 | | | 0.04 | 2.15 | 1.43 | 3.58 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.09 | 4.57 | | 4.57 |
| Prefix | pt | 13.06 | | | | | | 0.26 | 13.32 | | 13.32 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.29 | 19.54 | | 19.54 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | | 6.03 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Prevathon | oz | 18.48 | | | | | | 0.28 | 18.76 | | 18.76 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| Bifenthrin | oz | 4.86 | | | | | | 0.07 | 4.93 | | 4.93 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.70 | | | 0.05 | 10.87 | 17.00 | 27.87 |
| Haul Soybeans | bu | 13.50 | | | | | | 0.07 | 13.57 | | 13.57 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.56 | | | 0.01 | 1.55 | 1.30 | 2.85 |
| 1/2-mi Pivot Irr. | acre | | 42.66 | 11.57 | 0.47 | | | 1.15 | 55.85 | 47.36 | 103.21 |
| TOTALS | | 297.99 | 49.81 | 19.14 | 7.01 | 0.00 | 10.15 | 384.10 | 74.02 | 458.12 | |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 465.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 6.50 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 19.25 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.62 | 17.54 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.28 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.72 | 0.00 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.50 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 2.44 | 0.93 | 0.04 | 0.00 | 3.26 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.84 | 17.91 | 12.80 | 0.00 | 4.26 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.63 | 1.12 | 0.55 | 0.00 | 4.84 |
| INTEREST ON OP. CAP. | 4.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 3.41 | 0.75 | 1.25 | 0.15 | 0.13 |
| TOTAL DIRECT EXPENSES | 74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.05 | 139.78 | 38.25 | 83.39 | 14.65 | 25.99 |
| NET INCOME | -74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -7.05 | -139.78 | -38.25 | -83.39 | -14.65 | 439.01 |
| NET INCOME TO DATE | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -82.04 | -221.82 | -260.07 | -343.46 | -358.11 | 80.90 |

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

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 2.0000 | 13.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.6600 | 15.68 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.0000 | 20.00 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2 | lb | 1.34 | 50.0000 | 67.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.6000 | 2.15 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 43.0000 | 11.61 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.3128 | 4.44 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1051 | 0.96 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.24 | 0.3734 | 5.32 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 3.0592 | 7.96 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.75 | 1.0000 | 4.75 | _____ |
| Tractors | acre | 1.70 | 1.0000 | 1.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 9.12 | 1.0000 | 9.12 | _____ |
| TOTAL DIRECT EXPENSES | | | | 278.47 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 10.48 | 1.0000 | 10.48 | _____ |
| Tractors | acre | 11.82 | 1.0000 | 11.82 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 37.82 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 316.29 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 43.0000 | 399.90 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 399.90 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 13.00 | 1.0000 | 13.00 | _____ |
| HARVEST AIDS | acre | 2.40 | 1.0000 | 2.40 | _____ |
| FERTILIZERS | acre | 35.68 | 1.0000 | 35.68 | _____ |
| FUNGICIDES | acre | 6.85 | 1.0000 | 6.85 | _____ |
| HERBICIDES | acre | 60.92 | 1.0000 | 60.92 | _____ |
| INSECTICIDES | acre | 5.94 | 1.0000 | 5.94 | _____ |
| SEED/PLANTS | acre | 67.00 | 1.0000 | 67.00 | _____ |
| ADJUVANTS | acre | 2.16 | 1.0000 | 2.16 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 11.61 | 1.0000 | 11.61 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.1051 | 0.96 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.4149 | 5.89 | _____ |
| UNALLOCATED LABOR | hour | 14.24 | 0.3734 | 5.32 | _____ |
| DIESEL FUEL | gal | 2.60 | 4.4528 | 11.58 | _____ |
| REPAIR & MAINTENANCE | acre | 10.06 | 1.0000 | 10.06 | _____ |
| INTEREST ON OP. CAP. | acre | 9.12 | 1.0000 | 9.12 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 278.47 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 121.43 | _____ |
| TOTAL FIXED EXPENSES | | | | 37.82 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 316.29 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | 83.61 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.6600 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.0000 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 190 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Mar | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Plant - Folding | 12R-30 | MFWD 190 | 0.062 | 1.00 | Apr | | 0.06 | 0.06 | 0.12 | 0.05 |
| Soybean Seed RR2 | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Aug | | 0.02 | 0.02 | 0.04 | 0.02 |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Sep | | 0.10 | 0.10 | 0.10 | 0.09 |
| Haul Soybeans | bu | | | | | 43.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.41 | 0.41 | 0.52 | 0.37 |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | 7.95 |
| Phosphorus(46% P2O5) | cwt | 15.68 | | | | | | 0.94 | 16.62 | 16.62 |
| Potash (60% K2O) | cwt | 20.00 | | | | | | 1.20 | 21.20 | 21.20 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.34 | 6.05 | 5.36 |
| Field Cultivate Fld | 24' | | 1.58 | 0.78 | 1.69 | | | 0.24 | 4.29 | 4.43 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.23 | 6.73 | 6.73 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.16 | 4.64 | 4.64 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.17 | 4.97 | 4.97 |
| Plant - Folding | 12R-30 | | 1.60 | 1.95 | 2.27 | | | 0.17 | 5.99 | 5.79 |
| Soybean Seed RR2 | lb | 67.00 | | | | | | 2.01 | 69.01 | 69.01 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | 7.06 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | 4.59 |
| Prefix | pt | 13.06 | | | | | | 0.33 | 13.39 | 13.39 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | 6.66 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | 4.59 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.02 | 1.99 | 1.34 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | 6.00 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | 2.42 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | 0.73 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.76 | | | 0.05 | 10.93 | 17.00 |
| Haul Soybeans | bu | 11.61 | | | | | | 0.06 | 11.67 | 11.67 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 |
| TOTALS | | 235.54 | 11.58 | 10.06 | 12.17 | 0.00 | 9.12 | 278.47 | 37.82 | 316.29 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 399.90 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.00 |
| FERTILIZERS | 35.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.28 | 29.62 | 22.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.61 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 3.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.27 | 1.78 | 0.00 | 0.00 | 0.89 | 3.33 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 3.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.60 | 1.44 | 0.00 | 0.00 | 0.72 | 4.16 |
| REPAIR & MAINTENANCE | 2.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.95 | 0.72 | 0.00 | 0.00 | 0.36 | 4.83 |
| INTEREST ON OP. CAP. | 4.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.56 | 3.32 | 0.81 | 0.00 | 0.00 | 0.18 | 0.12 |
| TOTAL DIRECT EXPENSES | 73.05 | 0.00 | 0.00 | 0.00 | 0.00 | 16.34 | 114.05 | 33.27 | 0.00 | 0.00 | 17.71 | 24.05 |
| NET INCOME | -73.05 | 0.00 | 0.00 | 0.00 | 0.00 | -16.34 | -114.05 | -33.27 | 0.00 | 0.00 | -17.71 | 375.85 |
| NET INCOME TO DATE | -73.05 | -73.05 | -73.05 | -73.05 | -73.05 | -89.39 | -203.44 | -236.71 | -236.71 | -236.71 | -254.42 | 121.43 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, April planted, 12R 30"
 Non-Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 1.0000 | 6.50 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.6600 | 15.68 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.0000 | 20.00 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Fierce | oz | 7.54 | 3.5000 | 26.39 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 96.0000 | 14.40 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Dimilin 2L | oz | 2.13 | 1.0000 | 2.13 | _____ |
| Prevathon | oz | 1.32 | 14.0000 | 18.48 | _____ |
| Baythroid XL | oz | 2.65 | 1.0650 | 2.82 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2 | lb | 1.34 | 50.0000 | 67.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.4500 | 5.21 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 40.0000 | 10.80 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4647 | 6.60 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1523 | 1.38 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.5102 | 7.26 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 4.6579 | 12.12 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 6.17 | 1.0000 | 6.17 | _____ |
| Tractors | acre | 2.56 | 1.0000 | 2.56 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 8.78 | 1.0000 | 8.78 | _____ |
| TOTAL DIRECT EXPENSES | | | | 343.83 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 13.35 | 1.0000 | 13.35 | _____ |
| Tractors | acre | 17.79 | 1.0000 | 17.79 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 46.66 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 390.49 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 40.0000 | 372.00 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 372.00 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 6.50 | 1.0000 | 6.50 | _____ |
| HARVEST AIDS | acre | 2.40 | 1.0000 | 2.40 | _____ |
| FERTILIZERS | acre | 35.68 | 1.0000 | 35.68 | _____ |
| FUNGICIDES | acre | 6.85 | 1.0000 | 6.85 | _____ |
| HERBICIDES | acre | 102.42 | 1.0000 | 102.42 | _____ |
| INSECTICIDES | acre | 23.43 | 1.0000 | 23.43 | _____ |
| SEED/PLANTS | acre | 67.00 | 1.0000 | 67.00 | _____ |
| ADJUVANTS | acre | 5.22 | 1.0000 | 5.22 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 10.80 | 1.0000 | 10.80 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.1523 | 1.38 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.5669 | 8.05 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.5102 | 7.26 | _____ |
| DIESEL FUEL | gal | 2.60 | 6.0515 | 15.74 | _____ |
| REPAIR & MAINTENANCE | acre | 12.34 | 1.0000 | 12.34 | _____ |
| INTEREST ON OP. CAP. | acre | 8.78 | 1.0000 | 8.78 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 343.83 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 28.17 | _____ |
| TOTAL FIXED EXPENSES | | | | 46.66 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 390.49 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | -18.49 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| -----hours----- | | | | | | | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 190 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Bed/Lister-Roll-Fold | 12R-30 | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Feb | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Apr | 1.0000 | | | | |
| Phosphorus(46% P2O5) | cwt | | | | | 0.6600 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Apr | | 0.02 | 0.02 | 0.04 | 0.02 |
| Fierce | oz | | | | | 3.5000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 190 | 0.067 | 1.00 | May | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed RR2 | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Jun | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 0.50 | Jul | | 0.01 | 0.01 | 0.02 | 0.01 |
| Dimilin 2L | oz | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.0500 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Aug | | 0.02 | 0.02 | 0.04 | 0.02 |
| Prevathon | oz | | | | | 14.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 0.50 | Aug | | 0.01 | 0.01 | 0.02 | 0.01 |
| Baythroid XL | oz | | | | | 1.0650 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Sep | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.09 |
| Haul Soybeans | bu | | | | | 40.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.56 | 0.56 | 0.71 | 0.51 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|-------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.02 | 3.35 | | 3.35 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.06 | 12.71 | | 12.71 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.03 | 5.74 | 5.36 | 11.10 |
| Field Cultivate Fld | 24' | | 1.58 | 0.78 | 1.69 | | | 0.02 | 4.07 | 4.43 | 8.50 |
| Bed/Lister-Roll-Fold | 12R-30 | | 1.88 | 0.83 | 1.69 | | | 0.02 | 4.42 | 3.91 | 8.33 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.09 | 2.06 | 1.34 | 3.40 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.20 | 4.68 | | 4.68 |
| Select Max | pt | 12.71 | | | | | | 0.57 | 13.28 | | 13.28 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.26 | 7.76 | | 7.76 |
| Phosphorus (46% P2O5) | cwt | 15.68 | | | | | | 0.55 | 16.23 | | 16.23 |
| Potash (60% K2O) | cwt | 20.00 | | | | | | 0.70 | 20.70 | | 20.70 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.07 | 2.04 | 1.34 | 3.38 |
| Fierce | oz | 26.39 | | | | | | 0.92 | 27.31 | | 27.31 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.25 | 7.45 | | 7.45 |
| Surfactant | pt | 1.44 | | | | | | 0.05 | 1.49 | | 1.49 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 1.72 | 2.32 | 2.44 | | | 0.19 | 6.67 | 6.70 | 13.37 |
| Soybean Seed RR2 | lb | 67.00 | | | | | | 2.01 | 69.01 | | 69.01 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.06 | 2.03 | 1.34 | 3.37 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.13 | 4.61 | | 4.61 |
| Prefix | pt | 13.06 | | | | | | 0.39 | 13.45 | | 13.45 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 | 3.36 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Spray (Broadcast) | 60' | | 0.36 | 0.18 | 0.44 | | | 0.02 | 1.00 | 0.67 | 1.67 |
| Dimilin 2L | oz | 2.13 | | | | | | 0.04 | 2.17 | | 2.17 |
| Surfactant | pt | 0.18 | | | | | | | 0.18 | | 0.18 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.03 | 2.00 | 1.34 | 3.34 |
| Prevathon | oz | 18.48 | | | | | | 0.28 | 18.76 | | 18.76 |
| Spray (Broadcast) | 60' | | 0.36 | 0.18 | 0.44 | | | 0.01 | 0.99 | 0.67 | 1.66 |
| Baythroid XL | oz | 2.82 | | | | | | 0.04 | 2.86 | | 2.86 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.76 | | | 0.05 | 10.93 | 17.00 | 27.93 |
| Haul Soybeans | bu | 10.80 | | | | | | 0.05 | 10.85 | | 10.85 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 | 2.67 |
| TOTALS | | 290.28 | 15.74 | 12.34 | 16.69 | 0.00 | 8.78 | 343.83 | 46.66 | 390.49 | |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|------|------|------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 372.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.00 |
| FERTILIZERS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 17.19 | 0.00 | 33.59 | 47.16 | 4.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.13 | 21.30 | 0.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 1.44 | 0.00 | 0.18 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.80 |
| CUSTOM LIME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.65 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.33 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.89 | 0.00 | 0.89 | 3.33 | 0.89 | 0.44 | 1.33 | 0.00 | 8.92 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 | 0.72 | 2.44 | 0.72 | 0.36 | 1.08 | 0.00 | 9.70 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.36 | 2.68 | 0.36 | 0.18 | 0.54 | 0.00 | 7.86 |
| INTEREST ON OP. CAP. | 0.00 | 0.00 | 0.00 | 0.92 | 0.00 | 2.80 | 4.12 | 0.16 | 0.06 | 0.36 | 0.10 | 0.26 |
| TOTAL DIRECT EXPENSES | 0.00 | 0.00 | 0.00 | 21.52 | 0.00 | 82.98 | 141.52 | 6.61 | 3.35 | 24.61 | 9.72 | 53.52 |
| NET INCOME | 0.00 | 0.00 | 0.00 | -21.52 | 0.00 | -82.98 | -141.52 | -6.61 | -3.35 | -24.61 | -9.72 | 318.48 |
| NET INCOME TO DATE | 0.00 | 0.00 | 0.00 | -21.52 | -21.52 | -104.50 | -246.02 | -252.63 | -255.98 | -280.59 | -290.31 | 28.17 |

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

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, May planted, 12R 30"
 Non-Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 3.0000 | 19.50 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| Prevathon | oz | 1.32 | 14.0000 | 18.48 | _____ |
| Bifenthrin | oz | 0.76 | 6.4000 | 4.86 | _____ |
| IncidentalPestTrt \$8 | acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2 | lb | 1.34 | 50.0000 | 67.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.5000 | 1.80 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 25.0000 | 6.75 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.1171 | 1.66 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0817 | 0.74 | _____ |
| UNALLOCATED LABOR | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 1.3567 | 3.53 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 3.26 | 1.0000 | 3.26 | _____ |
| Tractors | acre | 0.70 | 1.0000 | 0.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 8.56 | 1.0000 | 8.56 | _____ |
| TOTAL DIRECT EXPENSES | | | | 294.95 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 6.31 | 1.0000 | 6.31 | _____ |
| Tractors | acre | 4.83 | 1.0000 | 4.83 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 26.66 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 321.61 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus(46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Jun | | 0.06 | 0.06 | 0.13 | 0.05 |
| Soybean Seed RR2 | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Jul | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Prevathon | oz | | | | | 14.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| Bifenthrin | oz | | | | | 6.4000 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.08 |
| Haul Soybeans | bu | | | | | 25.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | ----- | | | | |
| | | | | | | 0.21 | 0.21 | 0.30 | 0.18 | |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|------|------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | 7.95 |
| Phosphorus(46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | 28.20 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.40 | | | 0.17 | 6.96 | 6.93 |
| Soybean Seed RR2 | lb | 67.00 | | | | | | 1.67 | 68.67 | 68.67 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.17 | 7.02 | 7.02 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.04 | 1.59 | 1.59 |
| Boundary | pt | 22.42 | | | | | | 0.56 | 22.98 | 22.98 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.18 | 7.38 | 7.38 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.88 | | | 0.04 | 2.15 | 1.43 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.09 | 4.57 | 4.57 |
| Prefix | pt | 13.06 | | | | | | 0.26 | 13.32 | 13.32 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | 6.03 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Prevathon | oz | 18.48 | | | | | | 0.28 | 18.76 | 18.76 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | 0.37 |
| Bifenthrin | oz | 4.86 | | | | | | 0.07 | 4.93 | 4.93 |
| Incidental Pest | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | 8.08 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.70 | | | 0.05 | 10.87 | 17.00 |
| Haul Soybeans | bu | 6.75 | | | | | | 0.03 | 6.78 | 6.78 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.56 | | | 0.01 | 1.55 | 1.30 |
| TOTALS | | 265.13 | 7.15 | 7.57 | 6.54 | 0.00 | 8.56 | 294.95 | 26.66 | 321.61 |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 232.50 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.00 | 6.50 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.62 | 17.54 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.28 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 67.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.36 | 0.00 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.75 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.88 | 0.00 | 0.00 | 3.26 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 0.85 | 0.00 | 0.00 | 4.26 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.38 | 0.00 | 0.00 | 4.84 |
| INTEREST ON OP. CAP. | 4.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 2.83 | 0.39 | 0.65 | 0.15 | 0.09 |
| TOTAL DIRECT EXPENSES | 74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.70 | 116.08 | 20.04 | 43.29 | 14.65 | 19.20 |
| NET INCOME | -74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -6.70 | -116.08 | -20.04 | -43.29 | -14.65 | 213.30 |
| NET INCOME TO DATE | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -81.69 | -197.77 | -217.81 | -261.10 | -275.75 | -62.45 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, RR2, 12R 30"
 Non-irrigated, All Areas, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2X | lb | 1.55 | 50.0000 | 77.50 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.0000 | 3.59 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 42.0000 | 11.34 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.3302 | 4.69 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0959 | 0.87 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.3738 | 5.32 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 3.8252 | 9.94 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.94 | 1.0000 | 4.94 | _____ |
| Tractors | acre | 1.97 | 1.0000 | 1.97 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| INTEREST ON OP. CAP. | acre | 12.00 | 1.0000 | 12.00 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 367.86 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 11.12 | 1.0000 | 11.12 | _____ |
| Tractors | acre | 13.61 | 1.0000 | 13.61 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| | | | | ----- | |
| TOTAL FIXED EXPENSES | | | | 38.54 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 406.40 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------------|---------------|----------------|----------------|
| | | | | | | | -----hours----- | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Subsoiler | 3 shank | MFWD 225 | 0.204 | 0.20 | Oct | | 0.04 | 0.04 | 0.04 | 0.03 |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Disk Harrow | 24' | MFWD 225 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Feb | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Apr | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed RR2X | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Aug | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Sep | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 42.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.41 | 0.41 | 0.51 | 0.37 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|--------------|--------------|--------------|-------------|--------------|---------------|---------------|---------------|-------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Subsoiler | 3 shank | | 1.23 | 0.32 | 1.10 | | | 0.16 | 2.81 | 1.90 | 4.71 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Disk Harrow | 24' | | 2.46 | 1.46 | 2.21 | | | 0.37 | 6.50 | 5.64 | 12.14 |
| Field Cultivate Fld | 24' | | 1.87 | 0.81 | 1.69 | | | 0.26 | 4.63 | 4.65 | 9.28 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.26 | 6.76 | | 6.76 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.18 | 4.66 | | 4.66 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.19 | 4.99 | | 4.99 |
| Select Max | pt | 12.71 | | | | | | 0.51 | 13.22 | | 13.22 |
| Valor SX | oz | 9.14 | | | | | | 0.37 | 9.51 | | 9.51 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.44 | | | 0.20 | 7.03 | 6.93 | 13.96 |
| Soybean Seed RR2X | lb | 77.50 | | | | | | 2.32 | 79.82 | | 79.82 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | | 6.66 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Prefix | pt | 13.06 | | | | | | 0.33 | 13.39 | | 13.39 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | | 6.00 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 11.34 | | | | | | 0.06 | 11.40 | | 11.40 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.57 | | | 0.01 | 1.56 | 1.30 | 2.86 |
| TOTALS | | 320.01 | 13.64 | 10.12 | 12.09 | 0.00 | 12.00 | 367.86 | 38.54 | 406.40 | |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 390.60 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 31.13 | 0.00 | 29.62 | 35.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.94 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.34 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 1.78 | 0.00 | 0.00 | 0.00 | 2.87 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 5.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 1.70 | 0.00 | 0.00 | 0.00 | 4.34 |
| REPAIR & MAINTENANCE | 2.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.76 | 0.00 | 0.00 | 0.00 | 4.42 |
| INTEREST ON OP. CAP. | 5.04 | 0.00 | 0.00 | 0.00 | 1.57 | 0.00 | 3.71 | 1.15 | 0.00 | 0.00 | 0.41 | 0.12 |
| TOTAL DIRECT EXPENSES | 88.93 | 0.00 | 0.00 | 0.00 | 40.64 | 0.00 | 127.50 | 47.49 | 0.00 | 0.00 | 40.21 | 23.09 |
| NET INCOME | -88.93 | 0.00 | 0.00 | 0.00 | -40.64 | 0.00 | -127.50 | -47.49 | 0.00 | 0.00 | -40.21 | 367.51 |
| NET INCOME TO DATE | -88.93 | -88.93 | -88.93 | -88.93 | -129.57 | -129.57 | -257.07 | -304.56 | -304.56 | -304.56 | -344.77 | 22.74 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Non-irrigated, Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

Table 9.A Estimated costs per acre
Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 5.0000 | 32.50 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| IRRIGATION SUPPLIES | | | | | |
| Roll-Out Pipe | ft | 0.25 | 33.0000 | 8.25 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2X | lb | 1.55 | 50.0000 | 77.50 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.1000 | 3.95 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 60.0000 | 16.20 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4713 | 6.70 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.3000 | 2.73 | _____ |
| Implements | hour | 9.06 | 0.0625 | 0.57 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0959 | 0.87 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.22 | 0.4301 | 6.12 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 5.2753 | 13.70 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| Roll-Out Pipe Irr. | gal | 2.60 | 7.3316 | 19.05 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 5.60 | 1.0000 | 5.60 | _____ |
| Tractors | acre | 2.74 | 1.0000 | 2.74 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| Roll-Out Pipe Irr. | acre | 6.89 | 1.0000 | 6.89 | _____ |
| INTEREST ON OP. CAP. | acre | 13.51 | 1.0000 | 13.51 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 445.83 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 13.59 | 1.0000 | 13.59 | _____ |
| Tractors | acre | 18.92 | 1.0000 | 18.92 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| Roll-Out Pipe Irr. | acre | 61.50 | 1.0000 | 61.50 | _____ |
| | | | | ----- | |
| TOTAL FIXED EXPENSES | | | | 107.82 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 553.65 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 60.0000 | 558.00 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 558.00 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 32.50 | 1.0000 | 32.50 | _____ |
| HARVEST AIDS | acre | 5.64 | 1.0000 | 5.64 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 96.35 | 1.0000 | 96.35 | _____ |
| INSECTICIDES | acre | 13.94 | 1.0000 | 13.94 | _____ |
| IRRIGATION SUPPLIES | acre | 8.25 | 1.0000 | 8.25 | _____ |
| SEED/PLANTS | acre | 77.50 | 1.0000 | 77.50 | _____ |
| ADJUVANTS | acre | 3.96 | 1.0000 | 3.96 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 16.20 | 1.0000 | 16.20 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.0959 | 0.87 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.3625 | 3.30 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.5564 | 7.91 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.4301 | 6.12 | _____ |
| DIESEL FUEL | gal | 2.60 | 14.0313 | 36.45 | _____ |
| REPAIR & MAINTENANCE | acre | 18.44 | 1.0000 | 18.44 | _____ |
| INTEREST ON OP. CAP. | acre | 13.51 | 1.0000 | 13.51 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 445.83 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 112.17 | _____ |
| | | | | ----- | |
| TOTAL FIXED EXPENSES | | | | 107.82 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 553.65 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | 4.35 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|-----------|---------------|-----|-----------------|-------------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Subsoiler | 3 shank | MFWD 225 | 0.204 | 0.20 | Oct | | 0.04 | 0.04 | 0.04 | 0.03 |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Disk Harrow | 24' | MFWD 225 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Bed/Lister-Roll-Fold | 12R-30 | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Feb | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Apr | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed RR2X | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Jul | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Aug | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Sep | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 60.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| Roll-Out Pipe Irr. | acre | | | | Jul | 1.0000 | 0.07 | 0.07 | 0.44 | |
| TOTALS | | | | | | | 0.55 | 0.55 | 1.01 | 0.43 |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Subsoiler | 3 shank | | 1.23 | 0.32 | 1.10 | | | 0.16 | 2.81 | 1.90 | 4.71 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Disk Harrow | 24' | | 2.46 | 1.46 | 2.21 | | | 0.37 | 6.50 | 5.64 | 12.14 |
| Field Cultivate Fld | 24' | | 1.87 | 0.81 | 1.69 | | | 0.26 | 4.63 | 4.65 | 9.28 |
| Bed/Lister-Roll-Fold | 12R-30 | | 1.88 | 0.83 | 1.69 | | | 0.26 | 4.66 | 3.91 | 8.57 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.26 | 6.76 | | 6.76 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.18 | 4.66 | | 4.66 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.19 | 4.99 | | 4.99 |
| Select Max | pt | 12.71 | | | | | | 0.51 | 13.22 | | 13.22 |
| Valor SX | oz | 9.14 | | | | | | 0.37 | 9.51 | | 9.51 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.44 | | | 0.20 | 7.03 | 6.93 | 13.96 |
| Soybean Seed RR2X | lb | 77.50 | | | | | | 2.32 | 79.82 | | 79.82 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | | 6.66 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Prefix | pt | 13.06 | | | | | | 0.33 | 13.39 | | 13.39 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.29 | 19.54 | | 19.54 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | | 6.00 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 16.20 | | | | | | 0.08 | 16.28 | | 16.28 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.57 | | | 0.01 | 1.56 | 1.30 | 2.86 |
| Roll-Out Pipe Irr. | acre | 8.25 | 20.93 | 7.49 | 4.42 | | | 0.83 | 41.92 | 65.37 | 107.29 |
| TOTALS | | 359.23 | 36.45 | 18.44 | 18.20 | 0.00 | 13.51 | 445.83 | 107.82 | 553.65 | |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 558.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 19.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 19.25 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 31.13 | 0.00 | 29.62 | 35.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.94 | 0.00 |
| IRRIGATION SUPPLIES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.25 | 0.00 | 0.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 0.00 | 0.00 | 0.36 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.20 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 7.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 2.01 | 2.81 | 0.23 | 0.00 | 3.48 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 8.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 1.70 | 13.19 | 6.35 | 0.00 | 4.77 |
| REPAIR & MAINTENANCE | 3.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.76 | 5.73 | 1.31 | 0.00 | 4.55 |
| INTEREST ON OP. CAP. | 5.41 | 0.00 | 0.00 | 0.00 | 1.57 | 0.00 | 3.71 | 1.16 | 0.59 | 0.51 | 0.41 | 0.15 |
| TOTAL DIRECT EXPENSES | 95.52 | 0.00 | 0.00 | 0.00 | 40.64 | 0.00 | 127.50 | 47.73 | 30.57 | 34.51 | 40.21 | 29.15 |
| NET INCOME | -95.52 | 0.00 | 0.00 | 0.00 | -40.64 | 0.00 | -127.50 | -47.73 | -30.57 | -34.51 | -40.21 | 528.85 |
| NET INCOME TO DATE | -95.52 | -95.52 | -95.52 | -95.52 | -136.16 | -136.16 | -263.66 | -311.39 | -341.96 | -376.47 | -416.68 | 112.17 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

Table 10.A Estimated costs per acre
Soybeans, full-season, RR2X, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt \$8 | acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2X | lb | 1.55 | 50.0000 | 77.50 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.1000 | 3.95 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 53.0000 | 14.31 | _____ |
| SURVEY & MARK LEVEES | | | | | |
| Survey & Mark Levees | acre | 4.50 | 0.5000 | 2.25 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4582 | 6.49 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.3125 | 2.82 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1100 | 1.00 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.22 | 0.3065 | 4.36 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 4.3236 | 11.27 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| Contour Flood Irr. | gal | 2.60 | 10.9974 | 28.59 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.85 | 1.0000 | 4.85 | _____ |
| Tractors | acre | 2.35 | 1.0000 | 2.35 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| Contour Flood Irr. | acre | 13.80 | 1.0000 | 13.80 | _____ |
| INTEREST ON OP. CAP. | acre | 12.85 | 1.0000 | 12.85 | _____ |
| TOTAL DIRECT EXPENSES | | | | 422.96 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 10.31 | 1.0000 | 10.31 | _____ |
| Tractors | acre | 16.21 | 1.0000 | 16.21 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| Contour Flood Irr. | acre | 48.51 | 1.0000 | 48.51 | _____ |
| TOTAL FIXED EXPENSES | | | | 88.84 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 511.80 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 53.0000 | 492.90 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 492.90 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 26.00 | 1.0000 | 26.00 | _____ |
| HARVEST AIDS | acre | 5.64 | 1.0000 | 5.64 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 77.97 | 1.0000 | 77.97 | _____ |
| INSECTICIDES | acre | 13.94 | 1.0000 | 13.94 | _____ |
| SEED/PLANTS | acre | 77.50 | 1.0000 | 77.50 | _____ |
| ADJUVANTS | acre | 3.96 | 1.0000 | 3.96 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 14.31 | 1.0000 | 14.31 | _____ |
| SURVEY & MARK LEVEES | acre | 2.25 | 1.0000 | 2.25 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.1100 | 1.00 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.3125 | 2.82 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.5433 | 7.70 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.3065 | 4.36 | _____ |
| DIESEL FUEL | gal | 2.60 | 16.7455 | 43.56 | _____ |
| REPAIR & MAINTENANCE | acre | 24.21 | 1.0000 | 24.21 | _____ |
| INTEREST ON OP. CAP. | acre | 12.85 | 1.0000 | 12.85 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 422.96 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 69.94 | _____ |
| TOTAL FIXED EXPENSES | | | | 88.84 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 511.80 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | -18.90 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------------|---------------|----------------|----------------|
| | | | | | | | -----hours----- | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Nov | | 0.08 | 0.08 | 0.08 | 0.07 |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Feb | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 190 | 0.067 | 1.00 | May | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed RR2X | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Jun | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Jul | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Sep | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 53.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| Contour Flood Irr. | acre | | | | Jul | 1.0000 | 0.20 | 0.20 | 0.51 | |
| TOTALS | | | | | | | 0.54 | 0.54 | 0.96 | 0.30 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|--------------|--------------|--------------|-------------|--------------|---------------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.34 | 6.05 | 5.36 | 11.41 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.10 | 2.22 | 1.43 | 3.65 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.20 | 4.68 | | 4.68 |
| Select Max | pt | 12.71 | | | | | | 0.57 | 13.28 | | 13.28 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Valor SX | oz | 9.14 | | | | | | 0.41 | 9.55 | | 9.55 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 1.72 | 2.32 | 2.44 | | | 0.19 | 6.67 | 6.70 | 13.37 |
| Soybean Seed RR2X | lb | 77.50 | | | | | | 2.32 | 79.82 | | 79.82 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.06 | 2.03 | 1.34 | 3.37 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.13 | 4.61 | | 4.61 |
| Prefix | pt | 13.06 | | | | | | 0.39 | 13.45 | | 13.45 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 | 3.36 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | | 4.59 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.13 | 6.63 | | 6.63 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.39 | 19.64 | | 19.64 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | | 6.03 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 14.31 | | | | | | 0.07 | 14.38 | | 14.38 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 | 2.67 |
| Contour Flood Irr. | acre | 2.25 | 33.23 | 14.96 | 5.69 | | | 1.15 | 57.28 | 56.19 | 113.47 |
| TOTALS | | 326.46 | 43.56 | 24.21 | 15.88 | 0.00 | 12.85 | 422.96 | 88.84 | 511.80 | |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 492.90 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 6.50 | 13.00 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 19.25 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 26.33 | 0.00 | 0.00 | 47.16 | 4.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.00 | 1.44 | 0.00 | 0.36 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.31 |
| SURVEY & MARK LEVEES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 2.21 | 0.00 | 0.00 | 0.89 | 0.00 | 0.00 | 3.78 | 2.73 | 1.61 | 1.61 | 0.18 | 2.87 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 2.08 | 0.00 | 0.00 | 0.85 | 0.00 | 0.00 | 2.44 | 11.95 | 10.86 | 10.86 | 0.28 | 4.24 |
| REPAIR & MAINTENANCE | 1.42 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 2.68 | 9.32 | 2.96 | 2.96 | 0.08 | 4.41 |
| INTEREST ON OP. CAP. | 4.59 | 0.00 | 0.00 | 1.34 | 0.00 | 0.00 | 4.49 | 0.77 | 0.83 | 0.41 | 0.29 | 0.13 |
| TOTAL DIRECT EXPENSES | 81.04 | 0.00 | 0.00 | 31.23 | 0.00 | 0.00 | 154.39 | 31.50 | 42.37 | 28.28 | 28.19 | 25.96 |
| NET INCOME | -81.04 | 0.00 | 0.00 | -31.23 | 0.00 | 0.00 | -154.39 | -31.50 | -42.37 | -28.28 | -28.19 | 466.94 |
| NET INCOME TO DATE | -81.04 | -81.04 | -81.04 | -112.27 | -112.27 | -112.27 | -266.66 | -298.16 | -340.53 | -368.81 | -397.00 | 69.94 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

Table 11.A Estimated costs per acre
Soybeans, double crop after wheat, RR2X, 12R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| Prevathon | oz | 1.32 | 14.0000 | 18.48 | _____ |
| Bifenthrin | oz | 0.76 | 6.4000 | 4.86 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2X | lb | 1.55 | 50.0000 | 77.50 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.6000 | 2.15 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 50.0000 | 13.50 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.1171 | 1.66 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.0518 | 0.47 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0817 | 0.74 | _____ |
| UNALLOCATED LABOR | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 1.3567 | 3.53 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| 1/2-mi Pivot Irr. | gal | 2.60 | 16.4057 | 42.66 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 3.26 | 1.0000 | 3.26 | _____ |
| Tractors | acre | 0.70 | 1.0000 | 0.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| 1/2-mi Pivot Irr. | acre | 11.57 | 1.0000 | 11.57 | _____ |
| INTEREST ON OP. CAP. | acre | 10.42 | 1.0000 | 10.42 | _____ |
| TOTAL DIRECT EXPENSES | | | | 394.87 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 6.31 | 1.0000 | 6.31 | _____ |
| Tractors | acre | 4.83 | 1.0000 | 4.83 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| 1/2-mi Pivot Irr. | acre | 47.36 | 1.0000 | 47.36 | _____ |
| TOTAL FIXED EXPENSES | | | | 74.02 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 468.89 | _____ |

Note: Cost of production estimates are based on 2018 input prices..
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 50.0000 | 465.00 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 465.00 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 26.00 | 1.0000 | 26.00 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 47.16 | 1.0000 | 47.16 | _____ |
| INSECTICIDES | acre | 37.28 | 1.0000 | 37.28 | _____ |
| SEED/PLANTS | acre | 77.50 | 1.0000 | 77.50 | _____ |
| ADJUVANTS | acre | 2.16 | 1.0000 | 2.16 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 13.50 | 1.0000 | 13.50 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.0817 | 0.74 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.0518 | 0.47 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.2193 | 3.11 | _____ |
| UNALLOCATED LABOR | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | gal | 2.60 | 19.1560 | 49.81 | _____ |
| REPAIR & MAINTENANCE | acre | 19.14 | 1.0000 | 19.14 | _____ |
| INTEREST ON OP. CAP. | acre | 10.42 | 1.0000 | 10.42 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 394.87 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 70.13 | _____ |
| TOTAL FIXED EXPENSES | | | | 74.02 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 468.89 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | -3.89 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Jun | | 0.06 | 0.06 | 0.13 | 0.05 |
| Soybean Seed RR2X | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Jul | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Prevathon | oz | | | | | 14.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| Bifenthrin | oz | | | | | 6.4000 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.08 |
| Haul Soybeans | bu | | | | | 50.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| 1/2-mi Pivot Irr. | acre | | | | Jul | 1.0000 | | | 0.05 | |
| TOTALS | | | | | | | 0.21 | 0.21 | 0.35 | 0.18 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.40 | | | 0.17 | 6.96 | 6.93 | 13.89 |
| Soybean Seed RR2X | lb | 77.50 | | | | | | 1.94 | 79.44 | | 79.44 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.17 | 7.02 | | 7.02 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.04 | 1.59 | | 1.59 |
| Boundary | pt | 22.42 | | | | | | 0.56 | 22.98 | | 22.98 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.18 | 7.38 | | 7.38 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.88 | | | 0.04 | 2.15 | 1.43 | 3.58 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.09 | 4.57 | | 4.57 |
| Prefix | pt | 13.06 | | | | | | 0.26 | 13.32 | | 13.32 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.29 | 19.54 | | 19.54 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | | 6.03 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Prevathon | oz | 18.48 | | | | | | 0.28 | 18.76 | | 18.76 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| Bifenthrin | oz | 4.86 | | | | | | 0.07 | 4.93 | | 4.93 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.70 | | | 0.05 | 10.87 | 17.00 | 27.87 |
| Haul Soybeans | bu | 13.50 | | | | | | 0.07 | 13.57 | | 13.57 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.56 | | | 0.01 | 1.55 | 1.30 | 2.85 |
| 1/2-mi Pivot Irr. | acre | | 42.66 | 11.57 | 0.47 | | | 1.15 | 55.85 | 47.36 | 103.21 |
| TOTALS | | 308.49 | 49.81 | 19.14 | 7.01 | 0.00 | 10.42 | 394.87 | 74.02 | 468.89 | |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 465.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 6.50 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 19.25 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.62 | 17.54 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.28 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.72 | 0.00 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.50 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 2.44 | 0.93 | 0.04 | 0.00 | 3.26 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.84 | 17.91 | 12.80 | 0.00 | 4.26 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.63 | 1.12 | 0.55 | 0.00 | 4.84 |
| INTEREST ON OP. CAP. | 4.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 3.68 | 0.75 | 1.25 | 0.15 | 0.13 |
| TOTAL DIRECT EXPENSES | 74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.05 | 150.55 | 38.25 | 83.39 | 14.65 | 25.99 |
| NET INCOME | -74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -7.05 | -150.55 | -38.25 | -83.39 | -14.65 | 439.01 |
| NET INCOME TO DATE | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -82.04 | -232.59 | -270.84 | -354.23 | -368.88 | 70.13 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 2.0000 | 13.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.6600 | 15.68 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.0000 | 20.00 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2X | lb | 1.55 | 50.0000 | 77.50 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.6000 | 2.15 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 43.0000 | 11.61 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.3128 | 4.44 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1051 | 0.96 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.24 | 0.3734 | 5.32 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 3.0592 | 7.96 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.75 | 1.0000 | 4.75 | _____ |
| Tractors | acre | 1.70 | 1.0000 | 1.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 9.43 | 1.0000 | 9.43 | _____ |
| TOTAL DIRECT EXPENSES | | | | 289.28 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 10.48 | 1.0000 | 10.48 | _____ |
| Tractors | acre | 11.82 | 1.0000 | 11.82 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 37.82 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 327.10 | _____ |

Note: Cost of production estimates are based on 2018 input prices. .
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, April planted, 12R 30"
 Non-Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 43.0000 | 399.90 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 399.90 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 13.00 | 1.0000 | 13.00 | _____ |
| HARVEST AIDS | acre | 2.40 | 1.0000 | 2.40 | _____ |
| FERTILIZERS | acre | 35.68 | 1.0000 | 35.68 | _____ |
| FUNGICIDES | acre | 6.85 | 1.0000 | 6.85 | _____ |
| HERBICIDES | acre | 60.92 | 1.0000 | 60.92 | _____ |
| INSECTICIDES | acre | 5.94 | 1.0000 | 5.94 | _____ |
| SEED/PLANTS | acre | 77.50 | 1.0000 | 77.50 | _____ |
| ADJUVANTS | acre | 2.16 | 1.0000 | 2.16 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 11.61 | 1.0000 | 11.61 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.1051 | 0.96 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.4149 | 5.89 | _____ |
| UNALLOCATED LABOR | hour | 14.24 | 0.3734 | 5.32 | _____ |
| DIESEL FUEL | gal | 2.60 | 4.4528 | 11.58 | _____ |
| REPAIR & MAINTENANCE | acre | 10.06 | 1.0000 | 10.06 | _____ |
| INTEREST ON OP. CAP. | acre | 9.43 | 1.0000 | 9.43 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 289.28 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 110.62 | _____ |
| TOTAL FIXED EXPENSES | | | | 37.82 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 327.10 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | 72.80 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------------|---------------|----------------|----------------|
| | | | | | | | -----hours----- | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.6600 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.0000 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 190 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Mar | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Plant - Folding | 12R-30 | MFWD 190 | 0.062 | 1.00 | Apr | | 0.06 | 0.06 | 0.12 | 0.05 |
| Soybean Seed RR2X | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Aug | | 0.02 | 0.02 | 0.04 | 0.02 |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Sep | | 0.10 | 0.10 | 0.10 | 0.09 |
| Haul Soybeans | bu | | | | | 43.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.41 | 0.41 | 0.52 | 0.37 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | 7.95 |
| Phosphorus(46% P2O5) | cwt | 15.68 | | | | | | 0.94 | 16.62 | 16.62 |
| Potash (60% K2O) | cwt | 20.00 | | | | | | 1.20 | 21.20 | 21.20 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.34 | 6.05 | 5.36 |
| Field Cultivate Fld | 24' | | 1.58 | 0.78 | 1.69 | | | 0.24 | 4.29 | 4.43 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.23 | 6.73 | 6.73 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.16 | 4.64 | 4.64 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.17 | 4.97 | 4.97 |
| Plant - Folding | 12R-30 | | 1.60 | 1.95 | 2.27 | | | 0.17 | 5.99 | 5.79 |
| Soybean Seed RR2X | lb | 77.50 | | | | | | 2.32 | 79.82 | 79.82 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | 7.06 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | 4.59 |
| Prefix | pt | 13.06 | | | | | | 0.33 | 13.39 | 13.39 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | 6.66 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | 4.59 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.02 | 1.99 | 1.34 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | 6.00 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | 2.42 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | 0.73 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.76 | | | 0.05 | 10.93 | 17.00 |
| Haul Soybeans | bu | 11.61 | | | | | | 0.06 | 11.67 | 11.67 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 |
| TOTALS | | 246.04 | 11.58 | 10.06 | 12.17 | 0.00 | 9.43 | 289.28 | 37.82 | 327.10 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 399.90 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.00 |
| FERTILIZERS | 35.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.28 | 29.62 | 22.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.61 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 3.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.27 | 1.78 | 0.00 | 0.00 | 0.89 | 3.33 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 3.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.60 | 1.44 | 0.00 | 0.00 | 0.72 | 4.16 |
| REPAIR & MAINTENANCE | 2.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.95 | 0.72 | 0.00 | 0.00 | 0.36 | 4.83 |
| INTEREST ON OP. CAP. | 4.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.56 | 3.63 | 0.81 | 0.00 | 0.00 | 0.18 | 0.12 |
| TOTAL DIRECT EXPENSES | 73.05 | 0.00 | 0.00 | 0.00 | 0.00 | 16.34 | 124.86 | 33.27 | 0.00 | 0.00 | 17.71 | 24.05 |
| NET INCOME | -73.05 | 0.00 | 0.00 | 0.00 | 0.00 | -16.34 | -124.86 | -33.27 | 0.00 | 0.00 | -17.71 | 375.85 |
| NET INCOME TO DATE | -73.05 | -73.05 | -73.05 | -73.05 | -73.05 | -89.39 | -214.25 | -247.52 | -247.52 | -247.52 | -265.23 | 110.62 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, April planted, 12R 30"
 Non-Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 1.0000 | 6.50 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.6600 | 15.68 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.0000 | 20.00 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 96.0000 | 13.44 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Fierce | oz | 7.54 | 3.5000 | 26.39 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 96.0000 | 14.40 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Dimilin 2L | oz | 2.13 | 1.0000 | 2.13 | _____ |
| Baythroid XL | oz | 2.65 | 1.0650 | 2.82 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2X | lb | 1.55 | 50.0000 | 77.50 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.4500 | 5.21 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 40.0000 | 10.80 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4365 | 6.20 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1382 | 1.25 | _____ |
| UNALLOCATED LABOR | hour | 14.23 | 0.4848 | 6.90 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 4.3820 | 11.40 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 5.96 | 1.0000 | 5.96 | _____ |
| Tractors | acre | 2.41 | 1.0000 | 2.41 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 8.78 | 1.0000 | 8.78 | _____ |
| TOTAL DIRECT EXPENSES | | | | 333.88 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 13.08 | 1.0000 | 13.08 | _____ |
| Tractors | acre | 16.72 | 1.0000 | 16.72 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 45.32 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 379.20 | _____ |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|-----------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 190 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Bed/Lister-Roll-Fold | 12R-30 | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Feb | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Apr | 1.0000 | | | | |
| Phosphorus(46% P2O5) | cwt | | | | | 0.6600 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Apr | | 0.02 | 0.02 | 0.04 | 0.02 |
| Fierce | oz | | | | | 3.5000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 190 | 0.067 | 1.00 | May | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed RR2X | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Jun | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 0.50 | Jul | | 0.01 | 0.01 | 0.02 | 0.01 |
| Dimilin 2L | oz | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.0500 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 0.50 | Aug | | 0.01 | 0.01 | 0.02 | 0.01 |
| Baythroid XL | oz | | | | | 1.0650 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Sep | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.09 |
| Haul Soybeans | bu | | | | | 40.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.53 | 0.53 | 0.67 | 0.48 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.02 | 3.35 | 3.35 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.06 | 12.71 | 12.71 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.03 | 5.74 | 5.36 |
| Field Cultivate Fld | 24' | | 1.58 | 0.78 | 1.69 | | | 0.02 | 4.07 | 4.43 |
| Bed/Lister-Roll-Fold | 12R-30 | | 1.88 | 0.83 | 1.69 | | | 0.02 | 4.42 | 3.91 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.09 | 2.06 | 1.34 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.20 | 4.68 | 4.68 |
| Select Max | pt | 12.71 | | | | | | 0.57 | 13.28 | 13.28 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | 1.50 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.26 | 7.76 | 7.76 |
| Phosphorus (46% P2O5) | cwt | 15.68 | | | | | | 0.55 | 16.23 | 16.23 |
| Potash (60% K2O) | cwt | 20.00 | | | | | | 0.70 | 20.70 | 20.70 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.07 | 2.04 | 1.34 |
| Fierce | oz | 26.39 | | | | | | 0.92 | 27.31 | 27.31 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.25 | 7.45 | 7.45 |
| Surfactant | pt | 1.44 | | | | | | 0.05 | 1.49 | 1.49 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 1.72 | 2.32 | 2.44 | | | 0.19 | 6.67 | 6.70 |
| Soybean Seed RR2X | lb | 77.50 | | | | | | 2.32 | 79.82 | 79.82 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | 7.06 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.06 | 2.03 | 1.34 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.13 | 4.61 | 4.61 |
| Prefix | pt | 13.06 | | | | | | 0.39 | 13.45 | 13.45 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.11 | 4.59 | 4.59 |
| Spray (Broadcast) | 60' | | 0.36 | 0.18 | 0.44 | | | 0.02 | 1.00 | 0.67 |
| Dimilin 2L | oz | 2.13 | | | | | | 0.04 | 2.17 | 2.17 |
| Surfactant | pt | 0.18 | | | | | | | 0.18 | 0.18 |
| Spray (Broadcast) | 60' | | 0.36 | 0.18 | 0.44 | | | 0.01 | 0.99 | 0.67 |
| Baythroid XL | oz | 2.82 | | | | | | 0.04 | 2.86 | 2.86 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | 2.42 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | 0.73 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.76 | | | 0.05 | 10.93 | 17.00 |
| Haul Soybeans | bu | 10.80 | | | | | | 0.05 | 10.85 | 10.85 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 |
| TOTALS | | 282.30 | 15.02 | 11.98 | 15.80 | 0.00 | 8.78 | 333.88 | 45.32 | 379.20 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|------|------|------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 372.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.00 |
| FERTILIZERS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 17.19 | 0.00 | 33.59 | 47.16 | 4.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.13 | 2.82 | 0.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 1.44 | 0.00 | 0.18 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.80 |
| CUSTOM LIME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.65 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.33 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.89 | 0.00 | 0.89 | 3.33 | 0.89 | 0.44 | 0.44 | 0.00 | 8.92 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 | 0.72 | 2.44 | 0.72 | 0.36 | 0.36 | 0.00 | 9.70 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.36 | 2.68 | 0.36 | 0.18 | 0.18 | 0.00 | 7.86 |
| INTEREST ON OP. CAP. | 0.00 | 0.00 | 0.00 | 0.92 | 0.00 | 2.80 | 4.43 | 0.16 | 0.06 | 0.05 | 0.10 | 0.26 |
| TOTAL DIRECT EXPENSES | 0.00 | 0.00 | 0.00 | 21.52 | 0.00 | 82.98 | 152.33 | 6.61 | 3.35 | 3.85 | 9.72 | 53.52 |
| NET INCOME | 0.00 | 0.00 | 0.00 | -21.52 | 0.00 | -82.98 | -152.33 | -6.61 | -3.35 | -3.85 | -9.72 | 318.48 |
| NET INCOME TO DATE | 0.00 | 0.00 | 0.00 | -21.52 | -21.52 | -104.50 | -256.83 | -263.44 | -266.79 | -270.64 | -280.36 | 38.12 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, May planted, 12R 30"
 Non-Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 3.0000 | 19.50 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| Prefix | pt | 6.53 | 2.0000 | 13.06 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| Prevathon | oz | 1.32 | 14.0000 | 18.48 | _____ |
| Bifenthrin | oz | 0.76 | 6.4000 | 4.86 | _____ |
| IncidentalPestTrt \$8 | acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed RR2X | lb | 1.55 | 50.0000 | 77.50 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.5000 | 1.80 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 25.0000 | 6.75 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.1171 | 1.66 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0817 | 0.74 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 1.3567 | 3.53 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 3.26 | 1.0000 | 3.26 | _____ |
| Tractors | acre | 0.70 | 1.0000 | 0.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 8.83 | 1.0000 | 8.83 | _____ |
| TOTAL DIRECT EXPENSES | | | | 305.72 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 6.31 | 1.0000 | 6.31 | _____ |
| Tractors | acre | 4.83 | 1.0000 | 4.83 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 26.66 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 332.38 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| -----hours----- | | | | | | | | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus(46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Jun | | 0.06 | 0.06 | 0.13 | 0.05 |
| Soybean Seed RR2X | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Jul | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Prefix | pt | | | | | 2.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Prevathon | oz | | | | | 14.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| Bifenthrin | oz | | | | | 6.4000 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.08 |
| Haul Soybeans | bu | | | | | 25.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| | | | | | | | ----- | | | |
| TOTALS | | | | | | | 0.21 | 0.21 | 0.30 | 0.18 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|------|------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | 7.95 |
| Phosphorus(46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | 28.20 |
| Soybeans Consulting | acre | 6.50 | | | | | | 0.20 | 6.70 | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.40 | | | 0.17 | 6.96 | 6.93 |
| Soybean Seed RR2X | lb | 77.50 | | | | | | 1.94 | 79.44 | 79.44 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.17 | 7.02 | 7.02 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.04 | 1.59 | 1.59 |
| Boundary | pt | 22.42 | | | | | | 0.56 | 22.98 | 22.98 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.18 | 7.38 | 7.38 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.88 | | | 0.04 | 2.15 | 1.43 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.09 | 4.57 | 4.57 |
| Prefix | pt | 13.06 | | | | | | 0.26 | 13.32 | 13.32 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | 6.03 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Prevathon | oz | 18.48 | | | | | | 0.28 | 18.76 | 18.76 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | 0.37 |
| Bifenthrin | oz | 4.86 | | | | | | 0.07 | 4.93 | 4.93 |
| Incidental Pest | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | 8.08 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.70 | | | 0.05 | 10.87 | 17.00 |
| Haul Soybeans | bu | 6.75 | | | | | | 0.03 | 6.78 | 6.78 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.56 | | | 0.01 | 1.55 | 1.30 |
| TOTALS | | 275.63 | 7.15 | 7.57 | 6.54 | 0.00 | 8.83 | 305.72 | 26.66 | 332.38 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 232.50 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.00 | 6.50 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.62 | 17.54 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.28 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.36 | 0.00 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.75 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.88 | 0.00 | 0.00 | 3.26 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 0.85 | 0.00 | 0.00 | 4.26 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.38 | 0.00 | 0.00 | 4.84 |
| INTEREST ON OP. CAP. | 4.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 3.10 | 0.39 | 0.65 | 0.15 | 0.09 |
| TOTAL DIRECT EXPENSES | 74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.70 | 126.85 | 20.04 | 43.29 | 14.65 | 19.20 |
| NET INCOME | -74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -6.70 | -126.85 | -20.04 | -43.29 | -14.65 | 213.30 |
| NET INCOME TO DATE | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -81.69 | -208.54 | -228.58 | -271.87 | -286.52 | -73.22 |

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

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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, 12R 30"
 Non-irrigated, All Areas, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Liberty 280 | oz | 0.59 | 58.0000 | 34.22 | _____ |
| Dual Magnum | pt | 13.81 | 1.0000 | 13.81 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed LL | lb | 1.42 | 50.0000 | 71.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.0000 | 3.59 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 42.0000 | 11.34 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.3302 | 4.69 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0959 | 0.87 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.3738 | 5.32 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 3.8252 | 9.94 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.94 | 1.0000 | 4.94 | _____ |
| Tractors | acre | 1.97 | 1.0000 | 1.97 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| INTEREST ON OP. CAP. | acre | 12.47 | 1.0000 | 12.47 | _____ |
| TOTAL DIRECT EXPENSES | | | | 387.84 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 11.12 | 1.0000 | 11.12 | _____ |
| Tractors | acre | 13.61 | 1.0000 | 13.61 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| TOTAL FIXED EXPENSES | | | | 38.54 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 426.38 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 15.B Summary of estimated costs and returns per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 15.C Estimated resource use for field operations, per acre
 Soybeans, full-season, LL, stale seedbed, 12R 30"
 Non-irrigated, Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-------------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Subsoiler | 3 shank | MFWD 225 | 0.204 | 0.20 | Oct | | 0.04 | 0.04 | 0.04 | 0.03 |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Disk Harrow | 24' | MFWD 225 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Feb | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Apr | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed LL | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Dual Magnum | pt | | | | | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Aug | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Sep | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 42.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.41 | 0.41 | 0.51 | 0.37 |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 15.D Estimated costs for field operations, per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|-------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Subsoiler | 3 shank | | 1.23 | 0.32 | 1.10 | | | 0.16 | 2.81 | 1.90 | 4.71 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Disk Harrow | 24' | | 2.46 | 1.46 | 2.21 | | | 0.37 | 6.50 | 5.64 | 12.14 |
| Field Cultivate Fld | 24' | | 1.87 | 0.81 | 1.69 | | | 0.26 | 4.63 | 4.65 | 9.28 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.26 | 6.76 | | 6.76 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.18 | 4.66 | | 4.66 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.19 | 4.99 | | 4.99 |
| Select Max | pt | 12.71 | | | | | | 0.51 | 13.22 | | 13.22 |
| Valor SX | oz | 9.14 | | | | | | 0.37 | 9.51 | | 9.51 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.44 | | | 0.20 | 7.03 | 6.93 | 13.96 |
| Soybean Seed LL | lb | 71.00 | | | | | | 2.13 | 73.13 | | 73.13 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | | 6.66 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | | 17.54 |
| Dual Magnum | pt | 13.81 | | | | | | 0.35 | 14.16 | | 14.16 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | | 17.54 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | | 6.00 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 11.34 | | | | | | 0.06 | 11.40 | | 11.40 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.57 | | | 0.01 | 1.56 | 1.30 | 2.86 |
| TOTALS | | 339.52 | 13.64 | 10.12 | 12.09 | 0.00 | 12.47 | 387.84 | 38.54 | 426.38 | |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 15.E Estimated monthly income and expense flows per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Non-irrigated, Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 390.60 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 31.13 | 0.00 | 29.62 | 61.61 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.94 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.34 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 1.78 | 0.00 | 0.00 | 0.00 | 2.87 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 5.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 1.70 | 0.00 | 0.00 | 0.00 | 4.34 |
| REPAIR & MAINTENANCE | 2.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.76 | 0.00 | 0.00 | 0.00 | 4.42 |
| INTEREST ON OP. CAP. | 5.04 | 0.00 | 0.00 | 0.00 | 1.57 | 0.00 | 3.52 | 1.81 | 0.00 | 0.00 | 0.41 | 0.12 |
| TOTAL DIRECT EXPENSES | 88.93 | 0.00 | 0.00 | 0.00 | 40.64 | 0.00 | 120.81 | 74.16 | 0.00 | 0.00 | 40.21 | 23.09 |
| NET INCOME | -88.93 | 0.00 | 0.00 | 0.00 | -40.64 | 0.00 | -120.81 | -74.16 | 0.00 | 0.00 | -40.21 | 367.51 |
| NET INCOME TO DATE | -88.93 | -88.93 | -88.93 | -88.93 | -129.57 | -129.57 | -250.38 | -324.54 | -324.54 | -324.54 | -364.75 | 2.76 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 15.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, LL, stale seedbed, 12R 30"
 Non-irrigated, Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

Table 16.A Estimated costs per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 5.0000 | 32.50 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Liberty 280 | oz | 0.59 | 58.0000 | 34.22 | _____ |
| Dual Magnum | pt | 13.81 | 1.0000 | 13.81 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| IRRIGATION SUPPLIES | | | | | |
| Roll-Out Pipe | ft | 0.25 | 33.0000 | 8.25 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed LL | lb | 1.42 | 50.0000 | 71.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.1000 | 3.95 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 60.0000 | 16.20 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4713 | 6.70 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.3000 | 2.73 | _____ |
| Implements | hour | 9.06 | 0.0625 | 0.57 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0959 | 0.87 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.22 | 0.4301 | 6.12 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 5.2753 | 13.70 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| Roll-Out Pipe Irr. | gal | 2.60 | 7.3316 | 19.05 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 5.60 | 1.0000 | 5.60 | _____ |
| Tractors | acre | 2.74 | 1.0000 | 2.74 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| Roll-Out Pipe Irr. | acre | 6.89 | 1.0000 | 6.89 | _____ |
| INTEREST ON OP. CAP. | acre | 13.98 | 1.0000 | 13.98 | _____ |
| TOTAL DIRECT EXPENSES | | | | 465.81 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 13.59 | 1.0000 | 13.59 | _____ |
| Tractors | acre | 18.92 | 1.0000 | 18.92 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| Roll-Out Pipe Irr. | acre | 61.50 | 1.0000 | 61.50 | _____ |
| TOTAL FIXED EXPENSES | | | | 107.82 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 573.63 | _____ |

Note: Cost of production estimates are based on 2018 input prices
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 16.B Summary of estimated costs and returns per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 60.0000 | 558.00 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 558.00 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 32.50 | 1.0000 | 32.50 | _____ |
| HARVEST AIDS | acre | 5.64 | 1.0000 | 5.64 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 122.36 | 1.0000 | 122.36 | _____ |
| INSECTICIDES | acre | 13.94 | 1.0000 | 13.94 | _____ |
| IRRIGATION SUPPLIES | acre | 8.25 | 1.0000 | 8.25 | _____ |
| SEED/PLANTS | acre | 71.00 | 1.0000 | 71.00 | _____ |
| ADJUVANTS | acre | 3.96 | 1.0000 | 3.96 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 16.20 | 1.0000 | 16.20 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.0959 | 0.87 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.3625 | 3.30 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.5564 | 7.91 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.4301 | 6.12 | _____ |
| DIESEL FUEL | gal | 2.60 | 14.0313 | 36.45 | _____ |
| REPAIR & MAINTENANCE | acre | 18.44 | 1.0000 | 18.44 | _____ |
| INTEREST ON OP. CAP. | acre | 13.98 | 1.0000 | 13.98 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 465.81 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 92.19 | _____ |
| | | | | ----- | |
| TOTAL FIXED EXPENSES | | | | 107.82 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 573.63 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | -15.63 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 16.C Estimated resource use for field operations, per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Subsoiler | 3 shank | MFWD 225 | 0.204 | 0.20 | Oct | | 0.04 | 0.04 | 0.04 | 0.03 |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Disk Harrow | 24' | MFWD 225 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Bed/Lister-Roll-Fold | 12R-30 | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Feb | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Apr | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed LL | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Dual Magnum | pt | | | | | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Jul | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Aug | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Sep | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 60.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| Roll-Out Pipe Irr. | acre | | | | Jul | 1.0000 | 0.07 | 0.07 | 0.44 | |
| TOTALS | | | | | | | 0.55 | 0.55 | 1.01 | 0.43 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 16.D Estimated costs for field operations, per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Subsoiler | 3 shank | | 1.23 | 0.32 | 1.10 | | | 0.16 | 2.81 | 1.90 | 4.71 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus(46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Disk Harrow | 24' | | 2.46 | 1.46 | 2.21 | | | 0.37 | 6.50 | 5.64 | 12.14 |
| Field Cultivate Fld | 24' | | 1.87 | 0.81 | 1.69 | | | 0.26 | 4.63 | 4.65 | 9.28 |
| Bed/Lister-Roll-Fold | 12R-30 | | 1.88 | 0.83 | 1.69 | | | 0.26 | 4.66 | 3.91 | 8.57 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.26 | 6.76 | | 6.76 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.18 | 4.66 | | 4.66 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.19 | 4.99 | | 4.99 |
| Select Max | pt | 12.71 | | | | | | 0.51 | 13.22 | | 13.22 |
| Valor SX | oz | 9.14 | | | | | | 0.37 | 9.51 | | 9.51 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.44 | | | 0.20 | 7.03 | 6.93 | 13.96 |
| Soybean Seed LL | lb | 71.00 | | | | | | 2.13 | 73.13 | | 73.13 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | | 6.66 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | | 17.54 |
| Dual Magnum | pt | 13.81 | | | | | | 0.35 | 14.16 | | 14.16 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.05 | 2.17 | 1.43 | 3.60 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | | 17.54 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.29 | 19.54 | | 19.54 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | | 6.00 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 16.20 | | | | | | 0.08 | 16.28 | | 16.28 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.57 | | | 0.01 | 1.56 | 1.30 | 2.86 |
| Roll-Out Pipe Irr. | acre | 8.25 | 20.93 | 7.49 | 4.42 | | | 0.83 | 41.92 | 65.37 | 107.29 |
| TOTALS | | 378.74 | 36.45 | 18.44 | 18.20 | 0.00 | 13.98 | 465.81 | 107.82 | 573.63 | |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 16.E Estimated monthly income and expense flows per acre
 Soybeans, full-season, LL, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 558.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 19.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 19.25 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 31.13 | 0.00 | 29.62 | 61.61 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.94 | 0.00 |
| IRRIGATION SUPPLIES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.25 | 0.00 | 0.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 0.00 | 0.00 | 0.36 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.20 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 7.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 2.01 | 2.81 | 0.23 | 0.00 | 3.48 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 8.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 1.70 | 13.19 | 6.35 | 0.00 | 4.77 |
| REPAIR & MAINTENANCE | 3.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.76 | 5.73 | 1.31 | 0.00 | 4.55 |
| INTEREST ON OP. CAP. | 5.41 | 0.00 | 0.00 | 0.00 | 1.57 | 0.00 | 3.52 | 1.82 | 0.59 | 0.51 | 0.41 | 0.15 |
| TOTAL DIRECT EXPENSES | 95.52 | 0.00 | 0.00 | 0.00 | 40.64 | 0.00 | 120.81 | 74.40 | 30.57 | 34.51 | 40.21 | 29.15 |
| NET INCOME | -95.52 | 0.00 | 0.00 | 0.00 | -40.64 | 0.00 | -120.81 | -74.40 | -30.57 | -34.51 | -40.21 | 528.85 |
| NET INCOME TO DATE | -95.52 | -95.52 | -95.52 | -95.52 | -136.16 | -136.16 | -256.97 | -331.37 | -361.94 | -396.45 | -436.66 | 92.19 |

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

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 16.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, LL, stale seedbed, 12R 30"
 Furrow irrigated, 9 ac-in., Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

Table 17.A Estimated costs per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| Sodium Chlorate 5L | gal | 5.40 | 0.6000 | 3.24 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Valor SX | oz | 4.57 | 2.0000 | 9.14 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Liberty 280 | oz | 0.59 | 58.0000 | 34.22 | _____ |
| Dual Magnum | pt | 13.81 | 1.0000 | 13.81 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| IncidentalPestTrt \$8 | acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed LL | lb | 1.42 | 50.0000 | 71.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.1000 | 3.95 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 53.0000 | 14.31 | _____ |
| SURVEY & MARK LEVEES | | | | | |
| Survey & Mark Levees | acre | 4.50 | 0.5000 | 2.25 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4582 | 6.49 | _____ |
| Harvesters | hour | 14.23 | 0.0851 | 1.21 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.3125 | 2.82 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1100 | 1.00 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.22 | 0.3065 | 4.36 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 4.3236 | 11.27 | _____ |
| Harvesters | gal | 2.60 | 1.4243 | 3.70 | _____ |
| Contour Flood Irr. | gal | 2.60 | 10.9974 | 28.59 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.85 | 1.0000 | 4.85 | _____ |
| Tractors | acre | 2.35 | 1.0000 | 2.35 | _____ |
| Harvesters | acre | 3.21 | 1.0000 | 3.21 | _____ |
| Contour Flood Irr. | acre | 13.80 | 1.0000 | 13.80 | _____ |
| INTEREST ON OP. CAP. | acre | 13.72 | 1.0000 | 13.72 | _____ |
| TOTAL DIRECT EXPENSES | | | | 456.92 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 10.31 | 1.0000 | 10.31 | _____ |
| Tractors | acre | 16.21 | 1.0000 | 16.21 | _____ |
| Harvesters | acre | 13.81 | 1.0000 | 13.81 | _____ |
| Contour Flood Irr. | acre | 48.51 | 1.0000 | 48.51 | _____ |
| TOTAL FIXED EXPENSES | | | | 88.84 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 545.76 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 17.B Summary of estimated costs and returns per acre
 Soybeans, full-season, LL, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 53.0000 | 492.90 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 492.90 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 26.00 | 1.0000 | 26.00 | _____ |
| HARVEST AIDS | acre | 5.64 | 1.0000 | 5.64 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 117.56 | 1.0000 | 117.56 | _____ |
| INSECTICIDES | acre | 13.94 | 1.0000 | 13.94 | _____ |
| SEED/PLANTS | acre | 71.00 | 1.0000 | 71.00 | _____ |
| ADJUVANTS | acre | 3.96 | 1.0000 | 3.96 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 14.31 | 1.0000 | 14.31 | _____ |
| SURVEY & MARK LEVEES | acre | 2.25 | 1.0000 | 2.25 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.1100 | 1.00 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.3125 | 2.82 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.5433 | 7.70 | _____ |
| UNALLOCATED LABOR | hour | 14.22 | 0.3065 | 4.36 | _____ |
| DIESEL FUEL | gal | 2.60 | 16.7455 | 43.56 | _____ |
| REPAIR & MAINTENANCE | acre | 24.21 | 1.0000 | 24.21 | _____ |
| INTEREST ON OP. CAP. | acre | 13.72 | 1.0000 | 13.72 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 456.92 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 35.98 | _____ |
| TOTAL FIXED EXPENSES | | | | 88.84 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 545.76 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | -52.86 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 17.C Estimated resource use for field operations, per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Nov | | 0.08 | 0.08 | 0.08 | 0.07 |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Feb | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Valor SX | oz | | | | | 2.0000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 190 | 0.067 | 1.00 | May | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed LL | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Dual Magnum | pt | | | | | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Jun | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Jul | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Sep | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Sodium Chlorate 5L | gal | | | | | 0.6000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 30' Flex | 325 hp | 0.085 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Haul Soybeans | bu | | | | | 53.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| Contour Flood Irr. | acre | | | | Jul | 1.0000 | 0.20 | 0.20 | 0.51 | |
| TOTALS | | | | | | | 0.54 | 0.54 | 0.96 | 0.30 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 17.D Estimated costs for field operations, per acre
Soybeans, full-season, LL, stale seedbed, 12R 30"
Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|--------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | | 3.53 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.34 | 6.05 | 5.36 | 11.41 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | | 7.95 |
| Phosphorus (46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | | 28.20 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.89 | | | 0.10 | 2.22 | 1.43 | 3.65 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.20 | 4.68 | | 4.68 |
| Select Max | pt | 12.71 | | | | | | 0.57 | 13.28 | | 13.28 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Valor SX | oz | 9.14 | | | | | | 0.41 | 9.55 | | 9.55 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 1.72 | 2.32 | 2.44 | | | 0.19 | 6.67 | 6.70 | 13.37 |
| Soybean Seed LL | lb | 71.00 | | | | | | 2.13 | 73.13 | | 73.13 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.05 | 1.60 | | 1.60 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.06 | 2.03 | 1.34 | 3.37 |
| Liberty 280 | oz | 17.11 | | | | | | 0.51 | 17.62 | | 17.62 |
| Dual Magnum | pt | 13.81 | | | | | | 0.41 | 14.22 | | 14.22 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 | 3.36 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | | 17.54 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.13 | 6.63 | | 6.63 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.39 | 19.64 | | 19.64 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | | 6.03 |
| Incidental Pest | | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | | 8.08 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Sodium Chlorate 5L | gal | 3.24 | | | | | | 0.03 | 3.27 | | 3.27 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 30' Flex | | 3.70 | 4.08 | 2.30 | | | 0.05 | 10.13 | 15.26 | 25.39 |
| Haul Soybeans | bu | 14.31 | | | | | | 0.07 | 14.38 | | 14.38 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 | 2.67 |
| Contour Flood Irr. | acre | 2.25 | 33.23 | 14.96 | 5.69 | | | 1.15 | 57.28 | 56.19 | 113.47 |
| TOTALS | | 359.55 | 43.56 | 24.21 | 15.88 | 0.00 | 13.72 | 456.92 | 88.84 | 545.76 | |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 17.E Estimated monthly income and expense flows per acre
 Soybeans, full-season, LL, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 492.90 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 6.50 | 13.00 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.64 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 19.25 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 26.33 | 0.00 | 0.00 | 60.54 | 30.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.00 | 1.44 | 0.00 | 0.36 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.31 |
| SURVEY & MARK LEVEES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 2.21 | 0.00 | 0.00 | 0.89 | 0.00 | 0.00 | 3.78 | 2.73 | 1.61 | 1.61 | 0.18 | 2.87 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 2.08 | 0.00 | 0.00 | 0.85 | 0.00 | 0.00 | 2.44 | 11.95 | 10.86 | 10.86 | 0.28 | 4.24 |
| REPAIR & MAINTENANCE | 1.42 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 2.68 | 9.32 | 2.96 | 2.96 | 0.08 | 4.41 |
| INTEREST ON OP. CAP. | 4.59 | 0.00 | 0.00 | 1.34 | 0.00 | 0.00 | 4.70 | 1.43 | 0.83 | 0.41 | 0.29 | 0.13 |
| TOTAL DIRECT EXPENSES | 81.04 | 0.00 | 0.00 | 31.23 | 0.00 | 0.00 | 161.48 | 58.37 | 42.37 | 28.28 | 28.19 | 25.96 |
| NET INCOME | -81.04 | 0.00 | 0.00 | -31.23 | 0.00 | 0.00 | -161.48 | -58.37 | -42.37 | -28.28 | -28.19 | 466.94 |
| NET INCOME TO DATE | -81.04 | -81.04 | -81.04 | -112.27 | -112.27 | -112.27 | -273.75 | -332.12 | -374.49 | -402.77 | -430.96 | 35.98 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 17.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, LL, stale seedbed, 12R 30"
 Flood irrigated, 13.5 ac-in., Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 4.0000 | 26.00 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| Quadris Top SBX | oz | 2.75 | 7.0000 | 19.25 | _____ |
| HERBICIDES | | | | | |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Liberty 280 | oz | 0.59 | 29.0000 | 17.11 | _____ |
| Dual Magnum | pt | 13.81 | 1.0000 | 13.81 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| Prevathon | oz | 1.32 | 14.0000 | 18.48 | _____ |
| Bifenthrin | oz | 0.76 | 6.4000 | 4.86 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed LL | lb | 1.42 | 50.0000 | 71.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.6000 | 2.15 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 50.0000 | 13.50 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.1171 | 1.66 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| IRRIGATE LABOR | | | | | |
| Special Labor | hour | 9.06 | 0.0518 | 0.47 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0817 | 0.74 | _____ |
| UNALLOCATED LABOR | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 1.3567 | 3.53 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| 1/2-mi Pivot Irr. | gal | 2.60 | 16.4057 | 42.66 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 3.26 | 1.0000 | 3.26 | _____ |
| Tractors | acre | 0.70 | 1.0000 | 0.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| 1/2-mi Pivot Irr. | acre | 11.57 | 1.0000 | 11.57 | _____ |
| INTEREST ON OP. CAP. | acre | 10.53 | 1.0000 | 10.53 | _____ |
| TOTAL DIRECT EXPENSES | | | | 401.86 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 6.31 | 1.0000 | 6.31 | _____ |
| Tractors | acre | 4.83 | 1.0000 | 4.83 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| 1/2-mi Pivot Irr. | acre | 47.36 | 1.0000 | 47.36 | _____ |
| TOTAL FIXED EXPENSES | | | | 74.02 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 475.88 | _____ |

Note: Cost of production estimates are based on 2018 input prices. These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 18.B Summary of estimated costs and returns per acre
 Soybeans, double crop after wheat, LL, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 50.0000 | 465.00 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 465.00 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 26.00 | 1.0000 | 26.00 | _____ |
| FERTILIZERS | acre | 47.26 | 1.0000 | 47.26 | _____ |
| FUNGICIDES | acre | 26.10 | 1.0000 | 26.10 | _____ |
| HERBICIDES | acre | 60.54 | 1.0000 | 60.54 | _____ |
| INSECTICIDES | acre | 37.28 | 1.0000 | 37.28 | _____ |
| SEED/PLANTS | acre | 71.00 | 1.0000 | 71.00 | _____ |
| ADJUVANTS | acre | 2.16 | 1.0000 | 2.16 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 13.50 | 1.0000 | 13.50 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.0817 | 0.74 | _____ |
| IRRIGATE LABOR | hour | 9.06 | 0.0518 | 0.47 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.2193 | 3.11 | _____ |
| UNALLOCATED LABOR | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | gal | 2.60 | 19.1560 | 49.81 | _____ |
| REPAIR & MAINTENANCE | acre | 19.14 | 1.0000 | 19.14 | _____ |
| INTEREST ON OP. CAP. | acre | 10.53 | 1.0000 | 10.53 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 401.86 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 63.14 | _____ |
| TOTAL FIXED EXPENSES | | | | 74.02 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 475.88 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | -10.88 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 18.C Estimated resource use for field operations, per acre
Soybeans, double crop after wheat, LL, 12R 30"
Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|-----------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Jun | | 0.06 | 0.06 | 0.13 | 0.05 |
| Soybean Seed LL | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Jul | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Dual Magnum | pt | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Quadris Top SBX | oz | | | | | 7.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Prevathon | oz | | | | | 14.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| Bifenthrin | oz | | | | | 6.4000 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.08 |
| Haul Soybeans | bu | | | | | 50.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| 1/2-mi Pivot Irr. | acre | | | | Jul | 1.0000 | | | 0.05 | |
| TOTALS | | | | | | | 0.21 | 0.21 | 0.35 | 0.18 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 18.D Estimated costs for field operations, per acre
 Soybeans, double crop after wheat, LL, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | 7.95 |
| Phosphorus(46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | 28.20 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.40 | | | 0.17 | 6.96 | 6.93 |
| Soybean Seed LL | lb | 71.00 | | | | | | 1.78 | 72.78 | 72.78 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.17 | 7.02 | 7.02 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.04 | 1.59 | 1.59 |
| Boundary | pt | 22.42 | | | | | | 0.56 | 22.98 | 22.98 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.18 | 7.38 | 7.38 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.88 | | | 0.04 | 2.15 | 1.43 |
| Liberty 280 | oz | 17.11 | | | | | | 0.34 | 17.45 | 17.45 |
| Dual Magnum | pt | 13.81 | | | | | | 0.28 | 14.09 | 14.09 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Quadris Top SBX | oz | 19.25 | | | | | | 0.29 | 19.54 | 19.54 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | 0.37 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | 6.03 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Prevathon | oz | 18.48 | | | | | | 0.28 | 18.76 | 18.76 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | 0.37 |
| Bifenthrin | oz | 4.86 | | | | | | 0.07 | 4.93 | 4.93 |
| Incidental Pest | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | 8.08 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.70 | | | 0.05 | 10.87 | 17.00 |
| Haul Soybeans | bu | 13.50 | | | | | | 0.07 | 13.57 | 13.57 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.56 | | | 0.01 | 1.55 | 1.30 |
| 1/2-mi Pivot Irr. | acre | | 42.66 | 11.57 | 0.47 | | | 1.15 | 55.85 | 47.36 |
| TOTALS | | 315.37 | 49.81 | 19.14 | 7.01 | 0.00 | 10.53 | 401.86 | 74.02 | 475.88 |

Note: Cost of production estimates are based on 2018 input prices.
 These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 18.E Estimated monthly income and expense flows per acre
 Soybeans, double crop after wheat, LL, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 465.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.50 | 6.50 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 19.25 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.62 | 30.92 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.28 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.72 | 0.00 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.50 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 2.44 | 0.93 | 0.04 | 0.00 | 3.26 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.84 | 17.91 | 12.80 | 0.00 | 4.26 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.63 | 1.12 | 0.55 | 0.00 | 4.84 |
| INTEREST ON OP. CAP. | 4.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 3.52 | 1.02 | 1.25 | 0.15 | 0.13 |
| TOTAL DIRECT EXPENSES | 74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.05 | 143.89 | 51.90 | 83.39 | 14.65 | 25.99 |
| NET INCOME | -74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -7.05 | -143.89 | -51.90 | -83.39 | -14.65 | 439.01 |
| NET INCOME TO DATE | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -82.04 | -225.93 | -277.83 | -361.22 | -375.87 | 63.14 |

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

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 18.F Estimated returns for various price/yield combinations, per acre
 Soybeans, double crop after wheat, LL, 12R 30"
 Pivot irrigated, 7.5 ac-in., All Areas, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 2.0000 | 13.00 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.6600 | 15.68 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.0000 | 20.00 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| 2,4-D Amine 4 | pt | 2.40 | 2.0000 | 4.80 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Liberty 280 | oz | 0.59 | 58.0000 | 34.22 | _____ |
| Dual Magnum | pt | 13.81 | 1.0000 | 13.81 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed LL | lb | 1.42 | 50.0000 | 71.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.6000 | 2.15 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 43.0000 | 11.61 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.3128 | 4.44 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1051 | 0.96 | _____ |
| UNALLOCATED LABOR | hour | 14.24 | 0.3734 | 5.32 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 3.0592 | 7.96 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 4.75 | 1.0000 | 4.75 | _____ |
| Tractors | acre | 1.70 | 1.0000 | 1.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 10.24 | 1.0000 | 10.24 | _____ |
| TOTAL DIRECT EXPENSES | | | | 323.18 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 10.48 | 1.0000 | 10.48 | _____ |
| Tractors | acre | 11.82 | 1.0000 | 11.82 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 37.82 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 361.00 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 19.B Summary of estimated costs and returns per acre
Soybeans, full-season, 1L, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| INCOME | | | | | |
| Soybeans | bu | 9.30 | 43.0000 | 399.90 | _____ |
| | | | | ----- | |
| TOTAL INCOME | | | | 399.90 | _____ |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | acre | 13.00 | 1.0000 | 13.00 | _____ |
| HARVEST AIDS | acre | 2.40 | 1.0000 | 2.40 | _____ |
| FERTILIZERS | acre | 35.68 | 1.0000 | 35.68 | _____ |
| FUNGICIDES | acre | 6.85 | 1.0000 | 6.85 | _____ |
| HERBICIDES | acre | 100.51 | 1.0000 | 100.51 | _____ |
| INSECTICIDES | acre | 5.94 | 1.0000 | 5.94 | _____ |
| SEED/PLANTS | acre | 71.00 | 1.0000 | 71.00 | _____ |
| ADJUVANTS | acre | 2.16 | 1.0000 | 2.16 | _____ |
| CUSTOM FERTILIZE | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | acre | 11.61 | 1.0000 | 11.61 | _____ |
| CUSTOM LIME | acre | 12.65 | 1.0000 | 12.65 | _____ |
| CROP CONSULTANT | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | acre | 3.33 | 1.0000 | 3.33 | _____ |
| HAND LABOR | hour | 9.06 | 0.1051 | 0.96 | _____ |
| OPERATOR LABOR | hour | 14.23 | 0.4149 | 5.89 | _____ |
| UNALLOCATED LABOR | hour | 14.24 | 0.3734 | 5.32 | _____ |
| DIESEL FUEL | gal | 2.60 | 4.4528 | 11.58 | _____ |
| REPAIR & MAINTENANCE | acre | 10.06 | 1.0000 | 10.06 | _____ |
| INTEREST ON OP. CAP. | acre | 10.24 | 1.0000 | 10.24 | _____ |
| | | | | ----- | |
| TOTAL DIRECT EXPENSES | | | | 323.18 | _____ |
| RETURNS ABOVE DIRECT EXPENSES | | | | 76.72 | _____ |
| TOTAL FIXED EXPENSES | | | | 37.82 | _____ |
| | | | | ----- | |
| TOTAL SPECIFIED EXPENSES | | | | 361.00 | _____ |
| RETURNS ABOVE TOTAL SPECIFIED EXPENSES | | | | 38.90 | _____ |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 19.C Estimated resource use for field operations, per acre
Soybeans, full-season, LL, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | POWER IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|--------------------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Oct | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.6600 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.0000 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 190 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| App by Air (5 gal) | appl | | | 1.00 | Mar | 1.0000 | | | | |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| 2,4-D Amine 4 | pt | | | | | 2.0000 | | | | |
| Plant - Folding | 12R-30 | MFWD 190 | 0.062 | 1.00 | Apr | | 0.06 | 0.06 | 0.12 | 0.05 |
| Soybean Seed LL | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Dual Magnum | pt | | | | | 1.0000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Aug | | 0.02 | 0.02 | 0.04 | 0.02 |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Sep | | 0.10 | 0.10 | 0.10 | 0.09 |
| Haul Soybeans | bu | | | | | 43.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Sep | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.41 | 0.41 | 0.52 | 0.37 |

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

These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 19.D Estimated costs for field operations, per acre
Soybeans, full-season, LL, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | 7.95 |
| Phosphorus (46% P2O5) | cwt | 15.68 | | | | | | 0.94 | 16.62 | 16.62 |
| Potash (60% K2O) | cwt | 20.00 | | | | | | 1.20 | 21.20 | 21.20 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.34 | 6.05 | 5.36 |
| Field Cultivate Fld | 24' | | 1.58 | 0.78 | 1.69 | | | 0.24 | 4.29 | 4.43 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.23 | 6.73 | 6.73 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.16 | 4.64 | 4.64 |
| 2,4-D Amine 4 | pt | 4.80 | | | | | | 0.17 | 4.97 | 4.97 |
| Plant - Folding | 12R-30 | | 1.60 | 1.95 | 2.27 | | | 0.17 | 5.99 | 5.79 |
| Soybean Seed LL | lb | 71.00 | | | | | | 2.13 | 73.13 | 73.13 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | 7.06 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | 17.54 |
| Dual Magnum | pt | 13.81 | | | | | | 0.35 | 14.16 | 14.16 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.16 | 6.66 | 6.66 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | 17.54 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | 13.92 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.02 | 1.99 | 1.34 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.06 | 6.00 | 6.00 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | 2.42 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | 0.73 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.76 | | | 0.05 | 10.93 | 17.00 |
| Haul Soybeans | bu | 11.61 | | | | | | 0.06 | 11.67 | 11.67 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 |
| TOTALS | | 279.13 | 11.58 | 10.06 | 12.17 | 0.00 | 10.24 | 323.18 | 37.82 | 361.00 |

Note: Cost of production estimates are based on 2018 input prices.
These fertilizer rates are based on the assumption that 30-40% of the soybean fields would be mixed to light textured fields and not heavy clay exclusively. Also, rates are based on maintenance levels associated with the expected yield in the budget. **Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 19.E Estimated monthly income and expense flows per acre
Soybeans, full-season, LL, April planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-----------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 399.90 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.00 |
| FERTILIZERS | 35.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.28 | 29.62 | 61.61 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.61 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 3.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.27 | 1.78 | 0.00 | 0.00 | 0.89 | 3.33 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 3.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.60 | 1.44 | 0.00 | 0.00 | 0.72 | 4.16 |
| REPAIR & MAINTENANCE | 2.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.95 | 0.72 | 0.00 | 0.00 | 0.36 | 4.83 |
| INTEREST ON OP. CAP. | 4.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.56 | 3.44 | 1.81 | 0.00 | 0.00 | 0.18 | 0.12 |
| TOTAL DIRECT EXPENSES | 73.05 | 0.00 | 0.00 | 0.00 | 0.00 | 16.34 | 118.17 | 73.86 | 0.00 | 0.00 | 17.71 | 24.05 |
| NET INCOME | -73.05 | 0.00 | 0.00 | 0.00 | 0.00 | -16.34 | -118.17 | -73.86 | 0.00 | 0.00 | -17.71 | 375.85 |
| NET INCOME TO DATE | -73.05 | -73.05 | -73.05 | -73.05 | -73.05 | -89.39 | -207.56 | -281.42 | -281.42 | -281.42 | -299.13 | 76.72 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 19.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, LL, April planted, 12R 30"
 Non-Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 1.0000 | 6.50 | _____ |
| HARVEST AIDS | | | | | |
| Gramoxone SL | oz | 0.15 | 16.0000 | 2.40 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.6600 | 15.68 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.0000 | 20.00 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Glyphosate 3lbs a.e | oz | 0.14 | 32.0000 | 4.48 | _____ |
| Select Max | pt | 12.71 | 1.0000 | 12.71 | _____ |
| Fierce | oz | 7.54 | 3.5000 | 26.39 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 96.0000 | 14.40 | _____ |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Liberty 280 | oz | 0.59 | 58.0000 | 34.22 | _____ |
| Dual Magnum | pt | 13.81 | 1.0000 | 13.81 | _____ |
| Zidua | oz | 9.05 | 1.5000 | 13.58 | _____ |
| INSECTICIDES | | | | | |
| Dimilin 2L | oz | 2.13 | 1.0000 | 2.13 | _____ |
| Baythroid XL | oz | 2.65 | 1.0650 | 2.82 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed LL | lb | 1.42 | 50.0000 | 71.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 1.4500 | 5.21 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 40.0000 | 10.80 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.4365 | 6.20 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.1382 | 1.25 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.23 | 0.4848 | 6.90 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 4.3820 | 11.40 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 5.96 | 1.0000 | 5.96 | _____ |
| Tractors | acre | 2.41 | 1.0000 | 2.41 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 9.65 | 1.0000 | 9.65 | _____ |
| TOTAL DIRECT EXPENSES | | | | 367.84 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 13.08 | 1.0000 | 13.08 | _____ |
| Tractors | acre | 16.72 | 1.0000 | 16.72 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 45.32 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 413.16 | _____ |

Note: Cost of production estimates are based on 2018 input prices..
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 20.B Summary of estimated costs and returns per acre
Soybeans, full-season, LL, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 20.C Estimated resource use for field operations, per acre
Soybeans, full-season, LL, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|-----------|---------------|-----|-----------------|-------------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Oct | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Oct | 0.3330 | | | | |
| Disk Harrow | 24' | MFWD 190 | 0.081 | 1.00 | Oct | | 0.08 | 0.08 | 0.08 | 0.07 |
| Field Cultivate Fld | 24' | MFWD 190 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Bed/Lister-Roll-Fold | 12R-30 | MFWD 225 | 0.062 | 1.00 | Oct | | 0.06 | 0.06 | 0.06 | 0.05 |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Feb | | 0.02 | 0.02 | 0.04 | 0.02 |
| Glyphosate 3lbs a.e | oz | | | | | 32.0000 | | | | |
| Select Max | pt | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Apr | 1.0000 | | | | |
| Phosphorus(46% P2O5) | cwt | | | | | 0.6600 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Apr | | 0.02 | 0.02 | 0.04 | 0.02 |
| Fierce | oz | | | | | 3.5000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 190 | 0.067 | 1.00 | May | | 0.06 | 0.06 | 0.13 | 0.06 |
| Soybean Seed LL | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | May | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Dual Magnum | pt | | | | | 1.0000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 1.00 | Jun | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Zidua | oz | | | | | 1.5000 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 0.50 | Jul | | 0.01 | 0.01 | 0.02 | 0.01 |
| Dimilin 2L | oz | | | | | 1.0000 | | | | |
| Surfactant | pt | | | | | 0.0500 | | | | |
| Spray (Broadcast) | 60' | MFWD 190 | 0.028 | 0.50 | Aug | | 0.01 | 0.01 | 0.02 | 0.01 |
| Baythroid XL | oz | | | | | 1.0650 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Sep | 1.0000 | | | | |
| Gramoxone SL | oz | | | | | 16.0000 | | | | |
| Surfactant | pt | | | | | 0.2000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.09 |
| Haul Soybeans | bu | | | | | 40.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 190 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.53 | 0.53 | 0.67 | 0.48 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 20.D Estimated costs for field operations, per acre
Soybeans, full-season, LL, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST | |
|-------------------------------|---------------|-----------------------|---------------|--------------|--------------|--------------|-------------|-------------|---------------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | | |
| -----dollars----- | | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.02 | 3.35 | | 3.35 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.06 | 12.71 | | 12.71 |
| Disk Harrow | 24' | | 2.08 | 1.42 | 2.21 | | | 0.03 | 5.74 | 5.36 | 11.10 |
| Field Cultivate Fld | 24' | | 1.58 | 0.78 | 1.69 | | | 0.02 | 4.07 | 4.43 | 8.50 |
| Bed/Lister-Roll-Fold | 12R-30 | | 1.88 | 0.83 | 1.69 | | | 0.02 | 4.42 | 3.91 | 8.33 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.09 | 2.06 | 1.34 | 3.40 |
| Glyphosate 3lbs a.e | oz | 4.48 | | | | | | 0.20 | 4.68 | | 4.68 |
| Select Max | pt | 12.71 | | | | | | 0.57 | 13.28 | | 13.28 |
| Surfactant | pt | 1.44 | | | | | | 0.06 | 1.50 | | 1.50 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.26 | 7.76 | | 7.76 |
| Phosphorus (46% P2O5) | cwt | 15.68 | | | | | | 0.55 | 16.23 | | 16.23 |
| Potash (60% K2O) | cwt | 20.00 | | | | | | 0.70 | 20.70 | | 20.70 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.07 | 2.04 | 1.34 | 3.38 |
| Fierce | oz | 26.39 | | | | | | 0.92 | 27.31 | | 27.31 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.25 | 7.45 | | 7.45 |
| Surfactant | pt | 1.44 | | | | | | 0.05 | 1.49 | | 1.49 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 1.72 | 2.32 | 2.44 | | | 0.19 | 6.67 | 6.70 | 13.37 |
| Soybean Seed LL | lb | 71.00 | | | | | | 2.13 | 73.13 | | 73.13 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.21 | 7.06 | | 7.06 |
| Boundary | pt | 22.42 | | | | | | 0.67 | 23.09 | | 23.09 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.22 | 7.42 | | 7.42 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | | 1.48 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.06 | 2.03 | 1.34 | 3.37 |
| Liberty 280 | oz | 17.11 | | | | | | 0.51 | 17.62 | | 17.62 |
| Dual Magnum | pt | 13.81 | | | | | | 0.41 | 14.22 | | 14.22 |
| Spray (Broadcast) | 60' | | 0.72 | 0.36 | 0.89 | | | 0.05 | 2.02 | 1.34 | 3.36 |
| Liberty 280 | oz | 17.11 | | | | | | 0.43 | 17.54 | | 17.54 |
| Zidua | oz | 13.58 | | | | | | 0.34 | 13.92 | | 13.92 |
| Spray (Broadcast) | 60' | | 0.36 | 0.18 | 0.44 | | | 0.02 | 1.00 | 0.67 | 1.67 |
| Dimilin 2L | oz | 2.13 | | | | | | 0.04 | 2.17 | | 2.17 |
| Surfactant | pt | 0.18 | | | | | | | 0.18 | | 0.18 |
| Spray (Broadcast) | 60' | | 0.36 | 0.18 | 0.44 | | | 0.01 | 0.99 | 0.67 | 1.66 |
| Baythroid XL | oz | 2.82 | | | | | | 0.04 | 2.86 | | 2.86 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | | 6.57 |
| Gramoxone SL | oz | 2.40 | | | | | | 0.02 | 2.42 | | 2.42 |
| Surfactant | pt | 0.72 | | | | | | 0.01 | 0.73 | | 0.73 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.76 | | | 0.05 | 10.93 | 17.00 | 27.93 |
| Haul Soybeans | bu | 10.80 | | | | | | 0.05 | 10.85 | | 10.85 |
| Grain Cart Soybean | 700 bu | | 0.54 | 0.33 | 0.57 | | | 0.01 | 1.45 | 1.22 | 2.67 |
| TOTALS | | | 315.39 | 15.02 | 11.98 | 15.80 | 0.00 | 9.65 | 367.84 | 45.32 | 413.16 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 20.E Estimated monthly income and expense flows per acre
Soybeans, full-season, LL, May planted, 12R 30"
Non-Delta Area, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|------|------|------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 372.00 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 |
| HARVEST AIDS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.00 |
| FERTILIZERS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 17.19 | 0.00 | 33.59 | 60.54 | 30.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.13 | 2.82 | 0.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 1.44 | 1.44 | 0.00 | 0.18 | 0.00 | 0.72 | 0.00 |
| CUSTOM FERTILIZE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.80 |
| CUSTOM LIME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.65 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.33 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.89 | 0.00 | 0.89 | 3.33 | 0.89 | 0.44 | 0.44 | 0.00 | 8.92 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.72 | 0.00 | 0.72 | 2.44 | 0.72 | 0.36 | 0.36 | 0.00 | 9.70 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.36 | 2.68 | 0.36 | 0.18 | 0.18 | 0.00 | 7.86 |
| INTEREST ON OP. CAP. | 0.00 | 0.00 | 0.00 | 0.92 | 0.00 | 2.80 | 4.64 | 0.82 | 0.06 | 0.05 | 0.10 | 0.26 |
| TOTAL DIRECT EXPENSES | 0.00 | 0.00 | 0.00 | 21.52 | 0.00 | 82.98 | 159.42 | 33.48 | 3.35 | 3.85 | 9.72 | 53.52 |
| NET INCOME | 0.00 | 0.00 | 0.00 | -21.52 | 0.00 | -82.98 | -159.42 | -33.48 | -3.35 | -3.85 | -9.72 | 318.48 |
| NET INCOME TO DATE | 0.00 | 0.00 | 0.00 | -21.52 | -21.52 | -104.50 | -263.92 | -297.40 | -300.75 | -304.60 | -314.32 | 4.16 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 20.F Estimated returns for various price/yield combinations, per acre
 Soybeans, full-season, LL, May planted, 12R 30"
 Non-Delta Area, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

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

| ITEM | UNIT | PRICE | QUANTITY | AMOUNT | YOUR FARM |
|--------------------------|----------|---------|----------|---------|-----------|
| | | dollars | | dollars | |
| DIRECT EXPENSES | | | | | |
| CUSTOM SPRAY | | | | | |
| App by Air (5 gal) | appl | 6.50 | 3.0000 | 19.50 | _____ |
| FERTILIZERS | | | | | |
| Phosphorus (46% P2O5) | cwt | 23.75 | 0.8700 | 20.66 | _____ |
| Potash (60% K2O) | cwt | 20.00 | 1.3300 | 26.60 | _____ |
| FUNGICIDES | | | | | |
| CruiserMaxx | oz | 4.28 | 1.6000 | 6.85 | _____ |
| HERBICIDES | | | | | |
| Boundary | pt | 11.21 | 2.0000 | 22.42 | _____ |
| Gramoxone SL 2.0 | oz | 0.15 | 48.0000 | 7.20 | _____ |
| Liberty 280 | oz | 0.59 | 29.0000 | 17.11 | _____ |
| Dual Magnum | pt | 13.81 | 1.0000 | 13.81 | _____ |
| INSECTICIDES | | | | | |
| Acephate 90SP | lb | 7.92 | 0.7500 | 5.94 | _____ |
| Prevathon | oz | 1.32 | 14.0000 | 18.48 | _____ |
| Bifenthrin | oz | 0.76 | 6.4000 | 4.86 | _____ |
| IncidentalPestTrt | \$8 acre | 8.00 | 1.0000 | 8.00 | _____ |
| SEED/PLANTS | | | | | |
| Soybean Seed LL | lb | 1.42 | 50.0000 | 71.00 | _____ |
| ADJUVANTS | | | | | |
| Surfactant | pt | 3.59 | 0.5000 | 1.80 | _____ |
| CUSTOM FERTILIZE | | | | | |
| Custom Apply Fert | acre | 7.50 | 1.0000 | 7.50 | _____ |
| HAULING | | | | | |
| Haul Soybeans | bu | 0.27 | 25.0000 | 6.75 | _____ |
| CUSTOM LIME | | | | | |
| Lime (Spread) | ton | 38.00 | 0.3330 | 12.65 | _____ |
| CROP CONSULTANT | | | | | |
| Soybeans Consultant | acre | 6.50 | 1.0000 | 6.50 | _____ |
| INOCULANT | | | | | |
| Inoculant -Soybean | acre | 1.55 | 1.0000 | 1.55 | _____ |
| SOIL TEST | | | | | |
| Soil Test | acre | 10.00 | 0.3330 | 3.33 | _____ |
| OPERATOR LABOR | | | | | |
| Tractors | hour | 14.23 | 0.1171 | 1.66 | _____ |
| Harvesters | hour | 14.23 | 0.1021 | 1.45 | _____ |
| HAND LABOR | | | | | |
| Implements | hour | 9.06 | 0.0817 | 0.74 | _____ |
| UNALLOCATED LABOR | | | | | |
| | hour | 14.26 | 0.1886 | 2.69 | _____ |
| DIESEL FUEL | | | | | |
| Tractors | gal | 2.60 | 1.3567 | 3.53 | _____ |
| Harvesters | gal | 2.60 | 1.3935 | 3.62 | _____ |
| REPAIR & MAINTENANCE | | | | | |
| Implements | acre | 3.26 | 1.0000 | 3.26 | _____ |
| Tractors | acre | 0.70 | 1.0000 | 0.70 | _____ |
| Harvesters | acre | 3.61 | 1.0000 | 3.61 | _____ |
| INTEREST ON OP. CAP. | acre | 8.94 | 1.0000 | 8.94 | _____ |
| TOTAL DIRECT EXPENSES | | | | 312.71 | _____ |
| FIXED EXPENSES | | | | | |
| Implements | acre | 6.31 | 1.0000 | 6.31 | _____ |
| Tractors | acre | 4.83 | 1.0000 | 4.83 | _____ |
| Harvesters | acre | 15.52 | 1.0000 | 15.52 | _____ |
| TOTAL FIXED EXPENSES | | | | 26.66 | _____ |
| TOTAL SPECIFIED EXPENSES | | | | 339.37 | _____ |

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 21.B Summary of estimated costs and returns per acre
Soybeans, double crop after wheat, LL, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

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

Note: Cost of production estimates are based on 2018 input prices.
Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 21.C Estimated resource use for field operations, per acre
 Soybeans, double crop after wheat, LL, 12R 30"
 Non-irrigated, All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | POWER UNIT SIZE | PERF RATE | TIMES OVER | MTH | INPUT AMOUNT | POWER IMPLEMENT | POWER UNIT | ALLOC LABOR | UNALL LABOR |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-----------------|--------------------|---------------|----------------|----------------|
| | | | | | | -----hours----- | | | | |
| Soil Test | acre | | | 0.33 | Nov | 0.3330 | | | | |
| Lime (Spread) | ton | | | 0.33 | Nov | 0.3330 | | | | |
| Custom Apply Fert | acre | | | 1.00 | Nov | 1.0000 | | | | |
| Phosphorus (46% P2O5) | cwt | | | | | 0.8700 | | | | |
| Potash (60% K2O) | cwt | | | | | 1.3300 | | | | |
| Soybeans Consultant | acre | | | 1.00 | May | 1.0000 | | | | |
| Plant & Pre-Folding | 12R-30 | MFWD 225 | 0.067 | 1.00 | Jun | | 0.06 | 0.06 | 0.13 | 0.05 |
| Soybean Seed LL | lb | | | | | 50.0000 | | | | |
| CruiserMaxx | oz | | | | | 1.6000 | | | | |
| Inoculant -Soybean | acre | | | | | 1.0000 | | | | |
| Boundary | pt | | | | | 2.0000 | | | | |
| Gramoxone SL 2.0 | oz | | | | | 48.0000 | | | | |
| Surfactant | pt | | | | | 0.4000 | | | | |
| Spray (Broadcast) | 60' | MFWD 225 | 0.028 | 1.00 | Jul | | 0.02 | 0.02 | 0.04 | 0.02 |
| Liberty 280 | oz | | | | | 29.0000 | | | | |
| Dual Magnum | pt | | | | | 1.0000 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Acephate 90SP | lb | | | | | 0.7500 | | | | |
| App by Air (5 gal) | appl | | | 1.00 | Aug | 1.0000 | | | | |
| Prevathon | oz | | | | | 14.0000 | | | | |
| Surfactant | pt | | | | | 0.1000 | | | | |
| Bifenthrin | oz | | | | | 6.4000 | | | | |
| Incidental Pest | | | | 1.00 | Sep | | | | | |
| App by Air (5 gal) | appl | | | | | 1.0000 | | | | |
| IncidentalPestTrt \$8 | acre | | | | | 1.0000 | | | | |
| Header -Soybean | 25' Flex | 265 hp | 0.102 | 1.00 | Oct | | 0.10 | 0.10 | 0.10 | 0.08 |
| Haul Soybeans | bu | | | | | 25.0000 | | | | |
| Grain Cart Soybean | 700 bu | MFWD 225 | 0.021 | 1.00 | Oct | | 0.02 | 0.02 | 0.02 | 0.01 |
| TOTALS | | | | | | | 0.21 | 0.21 | 0.30 | 0.18 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 21.D Estimated costs for field operations, per acre
Soybeans, double crop after wheat, LL, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|------|------|-------|-------|-------|--------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Soil Test | acre | 3.33 | | | | | | 0.20 | 3.53 | 3.53 |
| Lime (Spread) | ton | 12.65 | | | | | | 0.76 | 13.41 | 13.41 |
| Custom Apply Fert | acre | 7.50 | | | | | | 0.45 | 7.95 | 7.95 |
| Phosphorus(46% P2O5) | cwt | 20.66 | | | | | | 1.24 | 21.90 | 21.90 |
| Potash (60% K2O) | cwt | 26.60 | | | | | | 1.60 | 28.20 | 28.20 |
| Soybeans Consultant | acre | 6.50 | | | | | | 0.20 | 6.70 | 6.70 |
| Plant & Pre-Folding | 12R-30 | | 2.04 | 2.35 | 2.40 | | | 0.17 | 6.96 | 6.93 |
| Soybean Seed LL | lb | 71.00 | | | | | | 1.78 | 72.78 | 72.78 |
| CruiserMaxx | oz | 6.85 | | | | | | 0.17 | 7.02 | 7.02 |
| Inoculant -Soybean | acre | 1.55 | | | | | | 0.04 | 1.59 | 1.59 |
| Boundary | pt | 22.42 | | | | | | 0.56 | 22.98 | 22.98 |
| Gramoxone SL 2.0 | oz | 7.20 | | | | | | 0.18 | 7.38 | 7.38 |
| Surfactant | pt | 1.44 | | | | | | 0.04 | 1.48 | 1.48 |
| Spray (Broadcast) | 60' | | 0.85 | 0.38 | 0.88 | | | 0.04 | 2.15 | 1.43 |
| Liberty 280 | oz | 17.11 | | | | | | 0.34 | 17.45 | 17.45 |
| Dual Magnum | pt | 13.81 | | | | | | 0.28 | 14.09 | 14.09 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Acephate 90SP | lb | 5.94 | | | | | | 0.09 | 6.03 | 6.03 |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.10 | 6.60 | 6.60 |
| Prevathon | oz | 18.48 | | | | | | 0.28 | 18.76 | 18.76 |
| Surfactant | pt | 0.36 | | | | | | 0.01 | 0.37 | 0.37 |
| Bifenthrin | oz | 4.86 | | | | | | 0.07 | 4.93 | 4.93 |
| Incidental Pest | | | | | | | | | | |
| App by Air (5 gal) | appl | 6.50 | | | | | | 0.07 | 6.57 | 6.57 |
| IncidentalPestTrt \$8 | acre | 8.00 | | | | | | 0.08 | 8.08 | 8.08 |
| Header -Soybean | 25' Flex | | 3.62 | 4.50 | 2.70 | | | 0.05 | 10.87 | 17.00 |
| Haul Soybeans | bu | 6.75 | | | | | | 0.03 | 6.78 | 6.78 |
| Grain Cart Soybean | 700 bu | | 0.64 | 0.34 | 0.56 | | | 0.01 | 1.55 | 1.30 |
| TOTALS | | 282.51 | 7.15 | 7.57 | 6.54 | 0.00 | 8.94 | 312.71 | 26.66 | 339.37 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 21.E Estimated monthly income and expense flows per acre
Soybeans, double crop after wheat, 1L, 12R 30"
Non-irrigated, All Areas, Mississippi, 2019

| ITEM | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| -----dollars----- | | | | | | | | | | | | |
| TOTAL INCOME | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 232.50 |
| DIRECT EXPENSES | | | | | | | | | | | | |
| CUSTOM SPRAY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.00 | 6.50 | 0.00 |
| FERTILIZERS | 47.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUNGICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| HERBICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.62 | 30.92 | 0.00 | 0.00 | 0.00 |
| INSECTICIDES | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.28 | 8.00 | 0.00 |
| SEED/PLANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 71.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ADJUVANTS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.44 | 0.00 | 0.36 | 0.00 | 0.00 |
| CUSTOM FERTILIZE | 7.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HAULING | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.75 |
| CUSTOM LIME | 12.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CROP CONSULTANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| INOCULANT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| SOIL TEST | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LABOR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 0.88 | 0.00 | 0.00 | 3.26 |
| LEASE * | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FUEL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 0.85 | 0.00 | 0.00 | 4.26 |
| REPAIR & MAINTENANCE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.38 | 0.00 | 0.00 | 4.84 |
| INTEREST ON OP. CAP. | 4.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 2.94 | 0.66 | 0.65 | 0.15 | 0.09 |
| TOTAL DIRECT EXPENSES | 74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.70 | 120.19 | 33.69 | 43.29 | 14.65 | 19.20 |
| NET INCOME | -74.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -6.70 | -120.19 | -33.69 | -43.29 | -14.65 | 213.30 |
| NET INCOME TO DATE | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -74.99 | -81.69 | -201.88 | -235.57 | -278.86 | -293.51 | -80.21 |

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

Fertilization decisions should be based on soil tests. Soil test cost is prorated for a test every 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 21.F Table 21.F Estimated returns for various price/yield combinations, per acre
 Soybeans, double crop after wheat, LL, 12R 30"
 Non-irrigated, All Areas, Mississippi, 2019

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

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2018 input prices.

APPENDIX

Appendix Table 1. Tractors/Harvesters: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Mississippi, 2019

| Item Name | Size | Purchase Price | Annual Use | Useful Life | Fuel Use | Labor | Fuel | R&M | Total Direct | Fixed | Total Cost |
|----------------------|-----------|----------------|------------|-------------|----------|-------------------|-------|-------|--------------|--------|------------|
| | | dollars | hours | years | gal/hr | -----\$/hour----- | | | | | |
| Combine (250-299 hp) | 265 hp | 339,000 | 300 | 8 | 13.64 | 13.51 | 35.46 | 35.31 | 84.28 | 151.94 | 236.23 |
| Combine (300-349 hp) | 325 hp | 362,000 | 300 | 8 | 16.73 | 13.51 | 43.49 | 37.70 | 94.71 | 162.25 | 256.97 |
| Combine (350-399 hp) | 355 hp | 391,000 | 300 | 8 | 18.27 | 13.51 | 47.50 | 40.72 | 101.74 | 175.25 | 276.99 |
| Combine (400-449 hp) | 425 hp | 412,000 | 300 | 8 | 21.87 | 13.51 | 56.87 | 42.91 | 113.30 | 184.66 | 297.97 |
| Combine (450-499hp) | 475 hp | 434,000 | 300 | 8 | 24.44 | 13.51 | 63.56 | 45.20 | 122.28 | 194.52 | 316.81 |
| Tractor(20-39hp)CB | MFWD 30 | 25,500 | 600 | 8 | 1.54 | 13.51 | 4.01 | 0.79 | 18.32 | 5.29 | 23.61 |
| Tractor(20-39hp)RB | MFWD 30 | 20,400 | 600 | 8 | 1.54 | 13.51 | 4.01 | 0.63 | 18.16 | 4.23 | 22.39 |
| Tractor(40-59hp)CB | 2WD 50 | 29,400 | 600 | 8 | 2.57 | 13.51 | 6.69 | 0.91 | 21.12 | 6.10 | 27.22 |
| Tractor(40-59hp)CB | MFWD 50 | 39,500 | 600 | 8 | 2.57 | 13.51 | 6.69 | 1.23 | 21.43 | 8.19 | 29.63 |
| Tractor(40-59hp)RB | 2WD 50 | 22,900 | 600 | 8 | 2.57 | 13.51 | 6.69 | 0.71 | 20.91 | 4.75 | 25.67 |
| Tractor(40-59hp)RB | MFWD 50 | 27,800 | 600 | 8 | 2.57 | 13.51 | 6.69 | 0.86 | 21.07 | 5.77 | 26.84 |
| Tractor(60-89hp)CB | 2WD 75 | 52,800 | 600 | 8 | 3.86 | 13.51 | 10.03 | 1.65 | 25.19 | 10.95 | 36.15 |
| Tractor(60-89hp)CB | MFWD 75 | 62,500 | 600 | 8 | 3.86 | 13.51 | 10.03 | 1.95 | 25.50 | 12.97 | 38.47 |
| Tractor(60-89hp)RB | 2WD 75 | 38,600 | 600 | 8 | 3.86 | 13.51 | 10.03 | 1.20 | 24.75 | 8.01 | 32.76 |
| Tractor(60-89hp)RB | MFWD 75 | 40,100 | 600 | 8 | 3.86 | 13.51 | 10.03 | 1.25 | 24.80 | 8.32 | 33.12 |
| Tractor(90-119hp)CB | 2WD 105 | 69,200 | 600 | 8 | 5.40 | 13.51 | 14.05 | 2.16 | 29.72 | 14.36 | 44.08 |
| Tractor(90-119hp)CB | MFWD 105 | 83,000 | 600 | 8 | 5.40 | 13.51 | 14.05 | 2.59 | 30.15 | 17.22 | 47.38 |
| Tractor(90-119hp)RB | 2WD 105 | 61,200 | 600 | 8 | 5.40 | 13.51 | 14.05 | 1.91 | 29.47 | 12.70 | 42.17 |
| Tractor(90-119hp)RB | MFWD 105 | 67,500 | 600 | 8 | 5.40 | 13.51 | 14.05 | 2.10 | 29.67 | 14.01 | 43.68 |
| Tractor(120-139hp)CB | 2WD 130 | 103,000 | 600 | 8 | 6.69 | 13.51 | 17.39 | 3.21 | 34.12 | 21.37 | 55.50 |
| Tractor(120-139hp)CB | MFWD 130 | 114,000 | 600 | 8 | 6.69 | 13.51 | 17.39 | 3.56 | 34.47 | 23.66 | 58.13 |
| Tractor(140-159hp) | 2WD 150 | 109,000 | 600 | 8 | 7.72 | 13.51 | 20.07 | 3.40 | 36.99 | 22.62 | 59.61 |
| Tractor(140-159hp)CB | MFWD 150 | 130,000 | 600 | 8 | 7.72 | 13.51 | 20.07 | 4.06 | 37.64 | 26.98 | 64.63 |
| Tractor(160-179hp)CB | MFWD 170 | 148,000 | 600 | 8 | 8.75 | 13.51 | 22.75 | 4.62 | 40.88 | 31.94 | 72.83 |
| Tractor(180-199hp)CB | MFWD 190 | 175,000 | 600 | 8 | 9.77 | 13.51 | 25.42 | 5.46 | 44.40 | 37.77 | 82.17 |
| Tractor(200-249hp)CB | MFWD 225 | 191,000 | 600 | 8 | 11.58 | 13.51 | 30.11 | 5.96 | 49.59 | 41.22 | 90.81 |
| Tractor(250-349hp)CB | 4WD 300 | 286,000 | 600 | 8 | 15.44 | 13.51 | 40.14 | 8.93 | 62.59 | 61.73 | 124.32 |
| Tractor(250-349hp)CB | MFWD 300 | 278,000 | 600 | 8 | 15.44 | 13.51 | 40.14 | 8.68 | 62.34 | 60.00 | 122.34 |
| Tractor(250-349hp)CB | Track 300 | 317,000 | 600 | 8 | 15.44 | 13.51 | 40.14 | 9.90 | 63.56 | 68.42 | 131.98 |
| Tractor(350-449hp) | Track 400 | 420,000 | 600 | 8 | 20.58 | 13.51 | 53.53 | 13.12 | 80.16 | 90.65 | 170.81 |
| Tractor(350-449hp)CB | 4WD 400 | 328,000 | 600 | 8 | 20.58 | 13.51 | 53.53 | 10.25 | 77.29 | 70.79 | 148.08 |
| Tractor(450-550hp)CB | 4WD 500 | 394,000 | 600 | 8 | 25.73 | 13.51 | 66.91 | 12.31 | 92.73 | 85.04 | 177.77 |
| Tractor(450-550hp)CB | Track 500 | 444,000 | 600 | 8 | 25.73 | 13.51 | 66.91 | 13.87 | 94.29 | 95.83 | 190.13 |
| Utility Vehicle | 800 CC | 12,200 | 200 | 8 | 0.70 | 13.51 | 1.75 | 1.90 | 17.16 | 8.20 | 25.36 |
| Utility Vehicle | 900 CC | 15,800 | 200 | 8 | 1.00 | 13.51 | 2.50 | 2.46 | 18.47 | 10.62 | 29.10 |

Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

Appendix Table 2. Self-propelled machines: estimated purchase price, annual use, useful life, fuel use, performance rate, and direct and fixed cost per acre, Mississippi, 2019

| Item Name | Size | Purchase Price | Annual Use | Useful Life | Fuel Use | Perf Rate | Labor | Fuel | R&M | Total Direct | Fixed | Total Cost |
|----------------------|-------------|----------------|------------|-------------|----------|-----------|-------------------|-------|-------|--------------|--------|------------|
| | | dollars | hours | years | gal/hr | hr/ac | -----\$/acre----- | | | | | |
| Cotton Picker | 4R-38 (250) | 268,000 | 200 | 8 | 12.86 | 0.257 | 5.81 | 8.62 | 10.79 | 25.23 | 46.44 | 71.68 |
| Cotton Picker | 4R-38 (350) | 351,000 | 200 | 8 | 18.01 | 0.257 | 5.81 | 12.07 | 14.13 | 32.02 | 60.83 | 92.86 |
| Cotton Picker | 4R2x1 (350) | 357,000 | 200 | 8 | 18.01 | 0.172 | 3.88 | 8.07 | 9.61 | 21.57 | 41.35 | 62.92 |
| Cotton Picker | 6R-30 (355) | 465,000 | 200 | 8 | 18.27 | 0.218 | 4.92 | 10.36 | 15.85 | 31.15 | 68.23 | 99.38 |
| Cotton Picker | 6R-38 (355) | 465,000 | 200 | 8 | 18.27 | 0.172 | 3.88 | 8.18 | 12.51 | 24.59 | 53.86 | 78.46 |
| Cotton Picker/Module | 4R-38 (365) | 536,000 | 200 | 8 | 20.58 | 0.257 | 5.81 | 13.79 | 21.58 | 41.20 | 92.89 | 134.10 |
| Cotton Picker/Module | 6R-30 (500) | 776,000 | 200 | 8 | 25.73 | 0.218 | 4.92 | 14.60 | 26.46 | 45.99 | 113.86 | 159.85 |
| Cotton Picker/Module | 6R-38 (500) | 777,000 | 200 | 8 | 25.73 | 0.172 | 3.88 | 11.52 | 20.91 | 36.33 | 90.01 | 126.35 |
| Dry Applicator SP | 70'300cuft | 347,000 | 350 | 8 | 16.98 | 0.015 | 0.27 | 0.66 | 0.28 | 1.22 | 2.01 | 3.23 |
| Sprayer 600-750gal | 60' 175hp | 208,000 | 350 | 8 | 9.00 | 0.017 | 0.31 | 0.41 | 0.19 | 0.92 | 1.40 | 2.33 |
| Sprayer 600-825gal | 80' 175hp | 210,000 | 350 | 8 | 11.81 | 0.013 | 0.23 | 0.40 | 0.14 | 0.79 | 1.06 | 1.85 |
| Sprayer 600-825gal | 90' 250hp | 288,000 | 350 | 8 | 12.73 | 0.011 | 0.21 | 0.38 | 0.18 | 0.78 | 1.30 | 2.08 |
| Sprayer 800gal | 100' 250hp | 303,000 | 350 | 8 | 14.15 | 0.010 | 0.19 | 0.38 | 0.17 | 0.75 | 1.23 | 1.98 |
| Sprayer 800gal | 80' 250hp | 255,000 | 350 | 8 | 12.86 | 0.013 | 0.23 | 0.44 | 0.18 | 0.86 | 1.29 | 2.15 |
| Sprayer 1000-1400gal | 90' 275hp | 289,000 | 350 | 8 | 14.15 | 0.010 | 0.19 | 0.38 | 0.16 | 0.74 | 1.17 | 1.91 |
| Sprayer 1000gal | 100' 300hp | 328,000 | 350 | 8 | 15.44 | 0.010 | 0.19 | 0.42 | 0.18 | 0.80 | 1.33 | 2.13 |
| Sprayer 1200+gal | 120' 300hp | 332,000 | 350 | 8 | 15.44 | 0.008 | 0.15 | 0.35 | 0.15 | 0.66 | 1.12 | 1.79 |

Notes:

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

Direct: Does not include interest on operating capital.

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019

| Item Name | Size | Power Unit | Purchase Price | Annual Use | Useful Life | Perf Rate | Labor | Fuel | ---R&M--- | | Total Direct | --Fixed-- | | Total Cost | |
|----------------------|-------|-------------|----------------|------------|-------------|-----------|-------|-------------------|-----------|------|--------------|-----------|------|------------|-------|
| | | | | | | | | | Imp. | P.U. | | Imp. | P.U. | | |
| | | | | dollars | hours | years | hr/ac | -----\$/acre----- | | | | | | | |
| Bed-Paratill | Fold | 8R-38 | MFWD 225 | 54,400 | 150 | 12 | 0.080 | 1.09 | 2.43 | 1.58 | 0.48 | 5.59 | 3.08 | 3.32 | 12.00 |
| Bed-Paratill | Fold | 8R-38 2x1 | MFWD 225 | 69,100 | 150 | 12 | 0.053 | 0.72 | 1.61 | 1.34 | 0.32 | 4.00 | 2.60 | 2.21 | 8.83 |
| Bed-Paratill | Fold | 12R-38 | MFWD 225 | 69,100 | 150 | 12 | 0.053 | 0.72 | 1.61 | 1.34 | 0.32 | 4.00 | 2.60 | 2.21 | 8.83 |
| Bed-Paratill | Rigid | 4R-30 | MFWD 225 | 12,300 | 150 | 12 | 0.204 | 2.76 | 6.15 | 0.90 | 1.21 | 11.04 | 1.76 | 8.42 | 21.22 |
| Bed-Paratill | Rigid | 4R-38 | MFWD 225 | 12,300 | 150 | 12 | 0.160 | 2.17 | 4.84 | 0.71 | 0.96 | 8.69 | 1.38 | 6.63 | 16.71 |
| Bed-Paratill | Rigid | 6R-30 | MFWD 225 | 17,300 | 150 | 12 | 0.136 | 1.84 | 4.10 | 0.85 | 0.81 | 7.60 | 1.65 | 5.61 | 14.87 |
| Bed-Paratill | Rigid | 6R-38 | MFWD 225 | 17,200 | 150 | 12 | 0.107 | 1.45 | 3.23 | 0.66 | 0.64 | 6.00 | 1.29 | 4.43 | 11.73 |
| Bed-Paratill | Rigid | 8R-30 | MFWD 225 | 22,600 | 150 | 12 | 0.102 | 1.38 | 3.07 | 0.83 | 0.60 | 5.90 | 1.62 | 4.21 | 11.73 |
| Bed-Paratill | Rigid | 8R-38 | MFWD 225 | 22,600 | 150 | 12 | 0.080 | 1.09 | 2.43 | 0.65 | 0.48 | 4.66 | 1.28 | 3.32 | 9.27 |
| Bed-Rip/Disk | Fold. | 8R-38 | MFWD 190 | 36,900 | 300 | 20 | 0.073 | 0.98 | 1.85 | 0.13 | 0.39 | 3.37 | 0.74 | 2.76 | 6.88 |
| Bed-Rip/Disk | Fold. | 12R-30 | MFWD 225 | 56,600 | 300 | 20 | 0.061 | 0.83 | 1.85 | 0.17 | 0.36 | 3.23 | 0.96 | 2.54 | 6.73 |
| Bed-Rip/Disk | Fold. | 12R-38 | MFWD 225 | 56,600 | 300 | 20 | 0.046 | 0.62 | 1.39 | 0.13 | 0.27 | 2.42 | 0.72 | 1.90 | 5.05 |
| Bed-Rip/Disk | Rigid | 4R-30 | MFWD 190 | 17,300 | 300 | 20 | 0.184 | 2.49 | 4.70 | 0.15 | 1.01 | 8.36 | 0.88 | 6.98 | 16.23 |
| Bed-Rip/Disk | Rigid | 4R-38 | MFWD 190 | 17,300 | 300 | 20 | 0.146 | 1.98 | 3.73 | 0.12 | 0.80 | 6.64 | 0.70 | 5.54 | 12.88 |
| Bed-Rip/Disk | Rigid | 6R-38 | MFWD 190 | 23,900 | 300 | 20 | 0.097 | 1.31 | 2.47 | 0.11 | 0.53 | 4.43 | 0.64 | 3.67 | 8.75 |
| Bed-Rip/Disk | Rigid | 8R-30 | MFWD 190 | 31,300 | 300 | 20 | 0.139 | 1.87 | 3.53 | 0.21 | 0.76 | 6.39 | 1.20 | 5.25 | 12.84 |
| Bed-Rip/Disk | Rigid | 8R-38 | MFWD 190 | 31,300 | 300 | 20 | 0.073 | 0.98 | 1.85 | 0.11 | 0.39 | 3.35 | 0.63 | 2.76 | 6.75 |
| Bed-Rip/Disk | Rigid | 6R-30 | MFWD 190 | 23,900 | 300 | 20 | 0.123 | 1.66 | 3.13 | 0.14 | 0.67 | 5.62 | 0.81 | 4.65 | 11.09 |
| Bed-Rip/Disk/Cond. | | 6-Row | MFWD 225 | 24,600 | 150 | 12 | 0.107 | 1.45 | 3.23 | 0.95 | 0.64 | 6.28 | 1.85 | 4.43 | 12.57 |
| Bed-Rip/Disk/Cond. | | 8-Row | MFWD 225 | 32,700 | 150 | 12 | 0.080 | 1.09 | 2.43 | 0.95 | 0.48 | 4.95 | 1.85 | 3.32 | 10.14 |
| Bed/Disk (Hipper) | | 4R-38 | MFWD 150 | 9,200 | 160 | 10 | 0.147 | 1.99 | 2.96 | 0.33 | 0.59 | 5.89 | 0.99 | 3.98 | 10.87 |
| Bed/Disk (Hipper) | | 6R-38 | MFWD 170 | 13,000 | 160 | 10 | 0.098 | 1.33 | 2.24 | 0.32 | 0.45 | 4.35 | 0.93 | 3.15 | 8.44 |
| Bed/Disk (Hipper) | | 8R-30 | MFWD 190 | 17,800 | 160 | 10 | 0.093 | 1.26 | 2.38 | 0.41 | 0.51 | 4.58 | 1.21 | 3.54 | 9.34 |
| Bed/Disk (Hipper) | | 8R-38 2x1 | MFWD 190 | 29,200 | 160 | 10 | 0.049 | 0.66 | 1.25 | 0.36 | 0.26 | 2.55 | 1.05 | 1.86 | 5.46 |
| Bed/Disk (Hipper) | | 12R-30 | MFWD 225 | 31,000 | 160 | 10 | 0.062 | 0.84 | 1.88 | 0.48 | 0.37 | 3.58 | 1.41 | 2.57 | 7.57 |
| Bed/Disk (Hipper) | | 12R-38 | MFWD 225 | 29,200 | 160 | 10 | 0.049 | 0.66 | 1.48 | 0.36 | 0.29 | 2.80 | 1.05 | 2.03 | 5.89 |
| Bed/Disk (Hipper)Fl | | 8R-38 | MFWD 190 | 2,000 | 160 | 10 | 0.074 | 1.00 | 1.88 | 0.03 | 0.40 | 3.32 | 0.10 | 2.79 | 6.23 |
| Bed/Disk (Hipper)Rd | | 8R-38 | MFWD 190 | 18,400 | 160 | 10 | 0.074 | 1.00 | 1.88 | 0.34 | 0.40 | 3.63 | 0.99 | 2.79 | 7.42 |
| Bed/Disk w/roller | | 8R-30 | MFWD 190 | 26,600 | 160 | 10 | 0.093 | 1.26 | 2.38 | 0.62 | 0.51 | 4.78 | 1.82 | 3.54 | 10.14 |
| Bed/Disk w/roller | | 8R-38 | MFWD 190 | 26,600 | 160 | 10 | 0.074 | 1.00 | 1.88 | 0.49 | 0.40 | 3.78 | 1.43 | 2.79 | 8.02 |
| Bed/Disk w/roller | | 12R-30/40 | MFWD 225 | 47,000 | 160 | 10 | 0.062 | 0.84 | 1.88 | 0.73 | 0.37 | 3.83 | 2.14 | 2.57 | 8.55 |
| Bed/Lister | | 4R-38 | MFWD 150 | 18,200 | 160 | 8 | 0.228 | 3.08 | 4.58 | 0.97 | 0.92 | 9.57 | 3.36 | 6.16 | 19.09 |
| Bed/Lister | | 6R-38 | MFWD 150 | 19,100 | 160 | 8 | 0.120 | 1.62 | 2.41 | 0.53 | 0.48 | 5.06 | 1.85 | 3.24 | 10.16 |
| Bed/Lister | | 8R-30 | MFWD 190 | 23,100 | 160 | 8 | 0.114 | 1.54 | 2.90 | 0.61 | 0.62 | 5.68 | 2.13 | 4.31 | 12.13 |
| Bed/Lister | | 8R-38 | MFWD 190 | 23,400 | 160 | 8 | 0.090 | 1.21 | 2.29 | 0.49 | 0.49 | 4.50 | 1.70 | 3.40 | 9.62 |
| Bed/Lister | | 8R-38 2x1 | MFWD 190 | 46,700 | 160 | 8 | 0.060 | 0.81 | 1.52 | 0.65 | 0.32 | 3.32 | 2.27 | 2.27 | 7.86 |
| Bed/Lister | | 12R-38 | MFWD 225 | 46,700 | 160 | 8 | 0.060 | 0.81 | 1.80 | 0.65 | 0.35 | 3.63 | 2.27 | 2.47 | 8.38 |
| Bed/Lister | | 16R-30 | MFWD 225 | 58,100 | 160 | 8 | 0.035 | 0.47 | 1.05 | 0.47 | 0.20 | 2.22 | 1.65 | 1.44 | 5.32 |
| Bed/Lister | | 16R40 | MFWD 300 | 60,900 | 160 | 8 | 0.043 | 0.58 | 1.73 | 0.61 | 0.37 | 3.30 | 2.12 | 2.58 | 8.01 |
| Bed/Lister-Roll-Fold | | 8R-38 | MFWD 190 | 24,300 | 160 | 10 | 0.074 | 1.00 | 1.88 | 0.45 | 0.40 | 3.74 | 1.31 | 2.79 | 7.85 |
| Bed/Lister-Roll-Fold | | 12R-30 | MFWD 225 | 29,200 | 160 | 10 | 0.062 | 0.84 | 1.88 | 0.45 | 0.37 | 3.55 | 1.33 | 2.57 | 7.46 |
| Bed/Lister-Roll-Fold | | 12R-38 | MFWD 225 | 33,700 | 160 | 10 | 0.049 | 0.66 | 1.48 | 0.41 | 0.29 | 2.86 | 1.21 | 2.03 | 6.11 |
| Bed/Lister-Roll-Fold | | 16R-30 | MFWD 225 | 34,800 | 160 | 10 | 0.046 | 0.63 | 1.41 | 0.40 | 0.27 | 2.73 | 1.19 | 1.93 | 5.85 |
| Bed/Lister-Roll-Rig. | | 8R-38 | MFWD 190 | 20,300 | 160 | 10 | 0.074 | 1.00 | 1.88 | 0.37 | 0.40 | 3.66 | 1.09 | 2.79 | 7.56 |
| Blade-Box | | 6'-7' | MFWD 105 | 1,221 | 200 | 20 | 0.020 | 0.27 | 0.28 | 0.01 | 0.04 | 0.60 | 0.01 | 0.28 | 0.89 |
| Blade-Box | | 8'-10' | MFWD 105 | 3,700 | 200 | 20 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Blade-Scraper | | 6'-7' | MFWD 105 | 1,213 | 200 | 20 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Blade-Scraper | | 8'-10' | MFWD 105 | 3,550 | 200 | 20 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Boll Buggy | | 4R-38 (250) | MFWD 190 | 30,500 | 200 | 10 | 0.257 | 3.48 | 6.55 | 1.96 | 1.40 | 13.41 | 4.44 | 9.73 | 27.59 |
| Boll Buggy | | 4R-38 (350) | MFWD 190 | 30,500 | 200 | 10 | 0.257 | 3.48 | 6.55 | 1.96 | 1.40 | 13.41 | 4.44 | 9.73 | 27.59 |
| Boll Buggy | | 4R2x1 (350) | MFWD 190 | 30,500 | 200 | 10 | 0.172 | 2.32 | 4.38 | 1.31 | 0.94 | 8.96 | 2.97 | 6.50 | 18.44 |
| Boll Buggy | | 6R-30 (355) | MFWD 190 | 30,500 | 200 | 10 | 0.218 | 2.94 | 5.54 | 1.66 | 1.19 | 11.35 | 3.76 | 8.24 | 23.36 |
| Boll Buggy | | 6R-38 (355) | MFWD 190 | 30,500 | 200 | 10 | 0.172 | 2.32 | 4.38 | 1.31 | 0.94 | 8.96 | 2.97 | 6.50 | 18.44 |
| Chisel Plow-Folding | | 24' | MFWD 190 | 39,900 | 150 | 12 | 0.076 | 1.03 | 1.94 | 1.10 | 0.41 | 4.49 | 2.14 | 2.88 | 9.52 |
| Chisel Plow-Folding | | 32' | MFWD 225 | 51,900 | 150 | 12 | 0.057 | 0.78 | 1.73 | 1.08 | 0.34 | 3.94 | 2.10 | 2.38 | 8.43 |
| Chisel Plow-Folding | | 42' | MFWD 225 | 62,500 | 150 | 12 | 0.044 | 0.59 | 1.32 | 0.99 | 0.26 | 3.17 | 1.93 | 1.81 | 6.92 |
| Chisel Plow-Folding | | 50' | MFWD 225 | 81,900 | 150 | 10 | 0.036 | 0.49 | 1.11 | 1.31 | 0.22 | 3.14 | 2.35 | 1.52 | 7.02 |
| Chisel Plow-Folding | | 61' | MFWD 225 | 92,400 | 150 | 12 | 0.030 | 0.40 | 0.91 | 1.01 | 0.18 | 2.51 | 1.96 | 1.24 | 5.72 |
| Chisel Plow-Rigid | | 10' | MFWD 170 | 7,090 | 150 | 12 | 0.184 | 2.49 | 4.20 | 0.47 | 0.85 | 8.03 | 0.92 | 5.90 | 14.85 |
| Chisel Plow-Rigid | | 15' | 2WD 130 | 11,800 | 150 | 12 | 0.123 | 1.66 | 2.14 | 0.52 | 0.39 | 4.73 | 1.02 | 2.63 | 8.38 |
| Chisel Plow-Rigid | | 20' | MFWD 225 | 11,300 | 150 | 12 | 0.102 | 1.38 | 3.09 | 0.41 | 0.61 | 5.51 | 0.81 | 4.23 | 10.56 |
| Chisel Plow-Rigid | | 24' | MFWD 190 | 11,700 | 150 | 12 | 0.077 | 1.04 | 1.95 | 0.32 | 0.42 | 3.74 | 0.63 | 2.90 | 7.28 |
| Cultivate | | 4R-30 | 2WD 105 | 12,100 | 150 | 10 | 0.206 | 2.78 | 2.89 | 0.66 | 0.44 | 6.79 | 1.94 | 2.96 | 11.70 |
| Cultivate | | 4R-38 | 2WD 105 | 12,200 | 150 | 10 | 0.162 | 2.19 | 2.28 | 0.52 | 0.31 | 5.31 | 1.54 | 2.06 | 8.92 |
| Cultivate | | 6R-30 | MFWD 150 | 16,300 | 150 | 10 | 0.137 | 1.85 | 2.76 | 0.59 | 0.55 | 5.77 | 1.74 | 3.71 | 11.23 |
| Cultivate | | 6R-38 | MFWD 150 | 17,200 | 150 | 10 | 0.108 | 1.46 | 2.17 | 0.49 | 0.44 | 4.58 | 1.45 | 2.92 | 8.96 |
| Cultivate | | 8R-30 | MFWD 190 | 21,400 | 150 | 10 | 0.103 | 1.39 | 2.62 | 0.58 | 0.56 | 5.16 | 1.71 | 3.89 | 10.78 |
| Cultivate | | 8R-38 | MFWD 190 | 22,600 | 150 | 10 | 0.073 | 0.99 | 1.87 | 0.44 | 0.40 | 3.71 | 1.29 | 2.78 | 7.79 |
| Cultivate | | 8R-38 2x1 | MFWD 190 | 35,400 | 150 | 10 | 0.054 | 0.73 | 1.38 | 0.51 | 0.29 | 2.92 | 1.49 | 2.05 | 6.47 |
| Cultivate | | 12R-30 | MFWD 225 | 39,900 | 150 | 10 | 0.068 | 0.92 | 2.07 | 0.73 | 0.41 | 4.14 | 2.13 | 2.83 | 9.11 |
| Cultivate | | 12R-38 | MFWD 225 | 39,100 | 150 | 10 | 0.054 | 0.73 | 1.63 | 0.56 | 0.32 | 3.25 | 1.65 | 2.23 | 7.14 |
| Cultivate | | 16R-30 | MFWD 225 | 47,800 | 150 | 10 | 0.051 | 0.69 | 1.55 | 0.65 | 0.30 | 3.21 | 1.92 | 2.12 | 7.25 |
| Cultivate & Post | | 4R-30 | 2WD 105 | 19,400 | 150 | 10 | 0.220 | 3.96 | 3.09 | 1.13 | 0.42 | 8.61 | 3.32 | 2.79 | 14.73 |
| Cultivate & Post | | 4R-38 | 2WD 105 | 19,500 | 150 | 10 | 0.173 | 3.12 | 2.43 | 0.90 | 0.33 | 6.79 | 2.63 | 2.20 | 11.62 |
| Cultivate & Post | | 6R-30 | MFWD 150 | 23,600 | 150 | 10 | 0.146 | 2.64 | 2.94 | 0.92 | 0.59 | 7.10 | 2.69 | 3.95 | 13.76 |
| Cultivate & Post | | 6R-38 | MFWD 150 | 24,500 | 150 | 10 | 0.115 | 2.08 | 2.32 | 0.75 | 0.47 | 5.64 | 2.21 | 3.12 | 10.97 |
| Cultivate & Post | | 8R-30 | MFWD 190 | 28,700 | 150 | 10 | 0.110 | 1.98 | 2.79 | 0.84 | 0.60 | 6.22 | 2.45 | 4.15 | 12.83 |
| Cultivate & Post | | 8R-38 | MFWD 190 | 29,800 | 150 | 10 | 0.086 | 1.56 | 2.21 | 0.69 | 0.47 | 4.94 | 2.01 | 3.28 | 10.25 |
| Cultivate & Post | | 8R-38 2x1 | MFWD 190 | 47,800 | 150 | 10 | 0.057 | 1.04 | 1.47 | 0.73 | 0.31 | 3.57 | 2.15 | 2.18 | 7.91 |

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (continued)

| Item Name | Size | Power Unit | Purchase Price | Annual Use | Useful Life | Perf Rate | Labor | Fuel | ---R&M--- | | Total Direct | --Fixed-- | | Total Cost |
|----------------------|-----------|------------|----------------|------------|-------------|-----------|-------------------|------|-----------|------|--------------|-----------|-------|------------|
| | | | | | | | | | Imp. | P.U. | | Imp. | P.U. | |
| | | | dollars | hours | years | hr/ac | -----\$/acre----- | | | | | | | |
| Cultivate & Post | 12R-30 | MFWD 225 | 47,200 | 150 | 10 | 0.073 | 1.32 | 2.20 | 0.92 | 0.43 | 4.89 | 2.69 | 3.02 | 10.61 |
| Cultivate & Post | 12R-38 | MFWD 225 | 47,800 | 150 | 10 | 0.057 | 1.04 | 1.74 | 0.73 | 0.34 | 3.87 | 2.15 | 2.38 | 8.41 |
| Cultivate & Post | 16R-30 | MFWD 225 | 56,500 | 150 | 10 | 0.055 | 0.99 | 1.65 | 0.82 | 0.32 | 3.80 | 2.42 | 2.26 | 8.49 |
| Disk & Incorporate | 14' | 2WD 130 | 31,900 | 200 | 10 | 0.149 | 2.69 | 2.60 | 1.43 | 0.48 | 7.21 | 2.78 | 3.19 | 13.20 |
| Disk & Incorporate | 20' | MFWD 190 | 44,500 | 180 | 10 | 0.092 | 1.24 | 2.35 | 1.37 | 0.50 | 5.47 | 2.67 | 3.49 | 11.63 |
| Disk & Incorporate | 24' | MFWD 190 | 50,000 | 200 | 10 | 0.087 | 1.57 | 2.21 | 1.30 | 0.47 | 5.58 | 2.55 | 3.29 | 11.42 |
| Disk & Incorporate | 28' | MFWD 225 | 59,200 | 200 | 10 | 0.074 | 1.34 | 2.25 | 1.32 | 0.44 | 5.37 | 2.58 | 3.08 | 11.05 |
| Disk & Incorporate | 32' | MFWD 225 | 66,000 | 200 | 10 | 0.065 | 1.18 | 1.97 | 1.29 | 0.39 | 4.84 | 2.52 | 2.69 | 10.06 |
| Disk Harrow | 14' | 2WD 130 | 24,600 | 180 | 10 | 0.140 | 1.89 | 2.44 | 0.95 | 0.45 | 5.74 | 2.24 | 2.99 | 10.98 |
| Disk Harrow | 20' | MFWD 190 | 39,200 | 180 | 10 | 0.098 | 1.32 | 2.49 | 1.06 | 0.53 | 5.43 | 2.49 | 3.70 | 11.63 |
| Disk Harrow | 24' | MFWD 190 | 42,700 | 180 | 10 | 0.081 | 1.10 | 2.08 | 0.97 | 0.44 | 4.60 | 2.26 | 3.09 | 9.96 |
| Disk Harrow | 28' | MFWD 225 | 52,000 | 180 | 10 | 0.070 | 0.94 | 2.11 | 1.01 | 0.41 | 4.49 | 2.36 | 2.89 | 9.75 |
| Disk Harrow | 32' | MFWD 225 | 58,700 | 180 | 10 | 0.061 | 0.82 | 1.84 | 1.00 | 0.36 | 4.04 | 2.33 | 2.53 | 8.91 |
| Disk Harrow | 42' | MFWD 225 | 104,000 | 180 | 10 | 0.046 | 0.63 | 1.40 | 1.35 | 0.27 | 3.67 | 3.15 | 1.92 | 8.75 |
| Disk Harrow 40-100hp | 14' | 2WD 75 | 15,000 | 180 | 10 | 0.140 | 1.89 | 1.40 | 0.58 | 0.16 | 4.05 | 1.36 | 1.12 | 6.54 |
| Disk Heavy | 14' | MFWD 150 | 31,900 | 180 | 10 | 0.145 | 1.97 | 2.92 | 1.29 | 0.59 | 6.78 | 3.02 | 3.93 | 13.74 |
| Disk Heavy | 20' | MFWD 190 | 39,200 | 180 | 10 | 0.097 | 1.31 | 2.47 | 1.05 | 0.53 | 5.38 | 2.47 | 3.67 | 11.53 |
| Disk Heavy | 28' | MFWD 225 | 52,000 | 180 | 10 | 0.075 | 1.02 | 2.27 | 1.09 | 0.45 | 4.84 | 2.55 | 3.11 | 10.52 |
| Disk Ripper | 15' | MFWD 225 | 45,200 | 180 | 10 | 0.136 | 1.84 | 4.10 | 1.71 | 0.81 | 8.46 | 3.99 | 5.61 | 18.07 |
| Ditcher | | 2WD 130 | 5,700 | 200 | 10 | 0.020 | 0.27 | 0.34 | 0.04 | 0.06 | 0.72 | 0.06 | 0.42 | 1.22 |
| Ditcher (1m/160a) | | 2WD 130 | 5,700 | 200 | 10 | 0.009 | 0.12 | 0.16 | 0.02 | 0.03 | 0.34 | 0.03 | 0.20 | 0.57 |
| Fert Appl (Liquid) | 4R-38 | MFWD 150 | 12,900 | 150 | 8 | 0.154 | 2.79 | 3.10 | 1.33 | 0.62 | 7.85 | 1.65 | 4.17 | 13.68 |
| Fert Appl (Liquid) | 6R-30 | MFWD 170 | 16,700 | 150 | 8 | 0.130 | 2.36 | 2.97 | 1.45 | 0.60 | 7.40 | 1.81 | 4.18 | 13.40 |
| Fert Appl (Liquid) | 6R-38 | MFWD 170 | 16,100 | 150 | 8 | 0.103 | 1.86 | 2.35 | 1.10 | 0.47 | 5.80 | 1.38 | 3.30 | 10.48 |
| Fert Appl (Liquid) | 8R-30 | MFWD 190 | 16,900 | 150 | 8 | 0.098 | 1.77 | 2.49 | 1.10 | 0.53 | 5.91 | 1.37 | 3.70 | 11.00 |
| Fert Appl (Liquid) | 8R-38 | MFWD 190 | 19,000 | 150 | 8 | 0.077 | 1.40 | 1.97 | 0.98 | 0.42 | 4.78 | 1.22 | 2.93 | 8.94 |
| Fert Appl (Liquid) | 8R-38 2x1 | MFWD 190 | 20,300 | 150 | 8 | 0.051 | 0.93 | 1.31 | 0.69 | 0.28 | 3.22 | 0.87 | 1.95 | 6.05 |
| Fert Appl (Liquid) | 12R-30 | MFWD 225 | 22,600 | 150 | 8 | 0.078 | 1.41 | 2.36 | 1.18 | 0.46 | 5.43 | 1.47 | 3.23 | 10.14 |
| Fert Appl (Liquid) | 12R-38 | MFWD 225 | 19,900 | 150 | 8 | 0.051 | 0.93 | 1.55 | 0.68 | 0.30 | 3.48 | 0.85 | 2.13 | 6.46 |
| Field Cult & Inc | 42' | MFWD 225 | 69,400 | 100 | 10 | 0.037 | 0.68 | 1.13 | 0.65 | 0.22 | 2.69 | 3.06 | 1.55 | 7.32 |
| Field Cult & Inc | 50' | MFWD 225 | 81,500 | 100 | 10 | 0.031 | 0.57 | 0.95 | 0.64 | 0.18 | 2.36 | 3.02 | 1.30 | 6.69 |
| Field Cult & Inc Fld | 24' | MFWD 170 | 34,000 | 100 | 10 | 0.066 | 1.19 | 1.50 | 0.56 | 0.30 | 3.56 | 2.62 | 2.11 | 8.30 |
| Field Cult & Inc Fld | 32' | MFWD 190 | 48,700 | 100 | 10 | 0.049 | 0.89 | 1.26 | 0.60 | 0.27 | 3.02 | 2.82 | 1.87 | 7.72 |
| Field Cult & Inc Rdg | 12' | 2WD 150 | 15,800 | 100 | 10 | 0.132 | 2.38 | 2.65 | 0.52 | 0.45 | 6.01 | 2.44 | 2.99 | 11.44 |
| Field Cultivate Fld | 24' | MFWD 170 | 28,600 | 100 | 10 | 0.062 | 0.84 | 1.41 | 0.44 | 0.28 | 2.98 | 2.07 | 1.98 | 7.05 |
| Field Cultivate Fld | 32' | MFWD 190 | 43,300 | 100 | 10 | 0.046 | 0.63 | 1.18 | 0.50 | 0.25 | 2.57 | 2.36 | 1.76 | 6.70 |
| Field Cultivate Fld | 42' | MFWD 225 | 60,700 | 100 | 10 | 0.035 | 0.48 | 1.07 | 0.53 | 0.21 | 2.30 | 2.52 | 1.46 | 6.28 |
| Field Cultivate Fld | 50' | MFWD 225 | 65,900 | 100 | 10 | 0.029 | 0.40 | 0.89 | 0.49 | 0.17 | 1.97 | 2.29 | 1.23 | 5.50 |
| Field Cultivate Rdg | 12' | 2WD 150 | 10,400 | 100 | 10 | 0.124 | 1.68 | 2.49 | 0.32 | 0.42 | 4.92 | 1.51 | 2.81 | 9.25 |
| Grain Cart Corn | 500 bu | MFWD 190 | 25,700 | 200 | 12 | 0.025 | 0.34 | 0.64 | 0.17 | 0.13 | 1.29 | 0.34 | 0.95 | 2.59 |
| Grain Cart Corn | 700 bu | MFWD 190 | 37,300 | 200 | 12 | 0.025 | 0.34 | 0.64 | 0.25 | 0.13 | 1.37 | 0.49 | 0.95 | 2.83 |
| Grain Cart Corn | 1000 bu | MFWD 225 | 46,900 | 200 | 12 | 0.025 | 0.34 | 0.76 | 0.32 | 0.15 | 1.57 | 0.62 | 1.04 | 3.24 |
| Grain Cart Rice | 500 bu | MFWD 190 | 25,700 | 200 | 12 | 0.062 | 0.84 | 1.58 | 0.43 | 0.34 | 3.21 | 0.84 | 2.36 | 6.41 |
| Grain Cart Rice | 700 bu | MFWD 190 | 37,300 | 200 | 12 | 0.055 | 0.74 | 1.39 | 0.55 | 0.30 | 2.99 | 1.08 | 2.07 | 6.15 |
| Grain Cart Rice | 1000 bu | MFWD 190 | 46,900 | 200 | 12 | 0.045 | 0.61 | 1.16 | 0.58 | 0.25 | 2.61 | 1.13 | 1.73 | 5.48 |
| Grain Cart Soybean | 500 bu | MFWD 190 | 25,700 | 200 | 12 | 0.025 | 0.34 | 0.64 | 0.17 | 0.13 | 1.30 | 0.34 | 0.96 | 2.61 |
| Grain Cart Soybean | 700 bu | MFWD 190 | 37,300 | 200 | 12 | 0.021 | 0.28 | 0.54 | 0.21 | 0.11 | 1.15 | 0.41 | 0.80 | 2.37 |
| Grain Cart Soybean | 1000 bu | MFWD 190 | 46,900 | 200 | 12 | 0.021 | 0.28 | 0.54 | 0.26 | 0.11 | 1.21 | 0.52 | 0.80 | 2.54 |
| Grain Cart Wht/Sor | 500 bu | MFWD 190 | 25,700 | 200 | 12 | 0.025 | 0.34 | 0.64 | 0.17 | 0.13 | 1.30 | 0.34 | 0.96 | 2.61 |
| Grain Cart Wht/Sor | 700 bu | MFWD 190 | 37,300 | 200 | 12 | 0.021 | 0.28 | 0.54 | 0.21 | 0.11 | 1.15 | 0.41 | 0.80 | 2.37 |
| Grain Cart Wht/Sor | 1000 bu | MFWD 190 | 46,900 | 200 | 12 | 0.021 | 0.28 | 0.54 | 0.26 | 0.11 | 1.21 | 0.52 | 0.80 | 2.54 |
| Grain Drill | 10' | 2WD 130 | 26,700 | 150 | 8 | 0.188 | 4.25 | 3.28 | 1.88 | 0.60 | 10.03 | 4.01 | 4.03 | 18.07 |
| Grain Drill | 12' | 2WD 130 | 26,800 | 150 | 8 | 0.157 | 3.54 | 2.73 | 1.57 | 0.50 | 8.36 | 3.35 | 3.35 | 15.08 |
| Grain Drill | 15' | MFWD 150 | 32,600 | 150 | 8 | 0.125 | 2.83 | 2.52 | 1.53 | 0.51 | 7.40 | 3.26 | 3.39 | 14.06 |
| Grain Drill | 20' | MFWD 170 | 38,800 | 150 | 8 | 0.094 | 2.12 | 2.14 | 1.37 | 0.43 | 6.08 | 2.91 | 3.01 | 12.00 |
| Grain Drill | 24' | MFWD 190 | 65,600 | 150 | 8 | 0.078 | 1.77 | 1.99 | 1.93 | 0.42 | 6.13 | 4.10 | 2.96 | 13.21 |
| Grain Drill | 30' | MFWD 225 | 63,800 | 150 | 8 | 0.062 | 1.41 | 1.89 | 1.50 | 0.37 | 5.19 | 3.19 | 2.59 | 10.97 |
| Grain Drill | 35' | MFWD 225 | 91,000 | 150 | 8 | 0.053 | 1.21 | 1.62 | 1.83 | 0.32 | 4.99 | 3.90 | 2.22 | 11.12 |
| Grain Drill & Pre | 10' | 2WD 130 | 33,900 | 150 | 8 | 0.203 | 4.58 | 3.53 | 2.58 | 0.65 | 11.35 | 5.48 | 4.34 | 21.18 |
| Grain Drill & Pre | 12' | 2WD 130 | 34,100 | 150 | 8 | 0.169 | 3.81 | 2.94 | 2.16 | 0.54 | 9.47 | 4.60 | 3.61 | 17.69 |
| Grain Drill & Pre | 15' | MFWD 150 | 39,900 | 150 | 8 | 0.135 | 3.05 | 2.71 | 2.02 | 0.54 | 8.34 | 4.30 | 3.65 | 16.30 |
| Grain Drill & Pre | 20' | MFWD 170 | 46,000 | 150 | 8 | 0.101 | 2.29 | 2.31 | 1.75 | 0.46 | 6.82 | 3.72 | 3.24 | 13.79 |
| Grain Drill & Pre | 24' | MFWD 190 | 71,000 | 150 | 8 | 0.084 | 1.90 | 2.15 | 2.25 | 0.46 | 6.77 | 4.78 | 3.19 | 14.76 |
| Grain Drill & Pre | 30' | MFWD 225 | 71,000 | 150 | 8 | 0.067 | 1.52 | 2.03 | 1.80 | 0.40 | 5.77 | 3.83 | 2.79 | 12.39 |
| Grain Drill & Pre | 35' | MFWD 225 | 98,200 | 150 | 8 | 0.058 | 1.30 | 1.74 | 2.13 | 0.34 | 5.53 | 4.54 | 2.39 | 12.47 |
| Grain Drill & Pre T | 8R-38 | MFWD 225 | 51,800 | 150 | 8 | 0.062 | 1.41 | 1.89 | 1.22 | 0.37 | 4.90 | 2.59 | 2.59 | 10.09 |
| Harrow - Rigid | 21' | 2WD 150 | 6,750 | 200 | 10 | 0.073 | 0.99 | 1.48 | 0.17 | 0.25 | 2.91 | 0.29 | 1.67 | 4.87 |
| Harrow - Folding | 24' | MFWD 190 | 15,800 | 200 | 10 | 0.064 | 0.87 | 1.64 | 0.35 | 0.35 | 3.23 | 0.59 | 2.44 | 6.27 |
| Harrow - Folding | 30' | MFWD 190 | 17,700 | 200 | 10 | 0.051 | 0.69 | 1.31 | 0.32 | 0.28 | 2.61 | 0.53 | 1.95 | 5.10 |
| Harrow - Folding | 40' | MFWD 190 | 20,200 | 200 | 10 | 0.038 | 0.52 | 0.98 | 0.27 | 0.21 | 1.99 | 0.45 | 1.46 | 3.92 |
| Harrow - Folding | 48' | MFWD 225 | 23,700 | 200 | 10 | 0.032 | 0.43 | 0.97 | 0.26 | 0.19 | 1.87 | 0.44 | 1.33 | 3.65 |
| Harrow - Rigid | 13' | 2WD 130 | 4,950 | 200 | 10 | 0.119 | 1.61 | 2.07 | 0.20 | 0.38 | 4.28 | 0.34 | 2.55 | 7.18 |
| Header - Corn | 6R-30 | 265 hp | 48,500 | 300 | 8 | 0.170 | 2.30 | 6.03 | 2.06 | 6.01 | 16.41 | 3.42 | 25.87 | 45.71 |
| Header - Corn | 6R-38 | 265 hp | 48,800 | 300 | 8 | 0.134 | 1.81 | 4.76 | 1.64 | 4.74 | 12.97 | 2.72 | 20.42 | 36.12 |
| Header - Corn | 8R-30 | 265 hp | 62,300 | 300 | 8 | 0.127 | 1.72 | 4.52 | 1.98 | 4.50 | 12.75 | 3.30 | 19.40 | 35.46 |
| Header - Corn | 8R-38 | 325 hp | 63,000 | 300 | 8 | 0.100 | 1.36 | 4.39 | 1.59 | 3.80 | 11.15 | 2.64 | 16.38 | 30.17 |
| Header - Corn | 12R-20 | 325 hp | 95,600 | 300 | 8 | 0.127 | 1.72 | 5.55 | 3.05 | 4.81 | 15.14 | 5.06 | 20.72 | 40.93 |

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (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 - Corn | 12R-30 | 325 hp | 98,200 | 300 | 8 | 0.085 | 1.15 | 3.70 | 2.09 | 3.21 | 10.15 | 3.47 | 13.81 | 27.43 |
| Header - Draper (CL) | 25' Rigid | 265 hp | 60,300 | 300 | 8 | 0.203 | 2.74 | 7.20 | 2.80 | 7.17 | 19.92 | 4.88 | 30.85 | 55.66 |
| Header - Draper (CL) | 30' Rigid | 325 hp | 70,600 | 300 | 8 | 0.169 | 2.28 | 7.36 | 2.73 | 6.38 | 18.76 | 4.76 | 27.45 | 50.98 |
| Header - Draper (CL) | 36' Rigid | 355 hp | 74,100 | 300 | 8 | 0.141 | 1.90 | 6.69 | 2.39 | 5.74 | 16.74 | 4.16 | 24.71 | 45.62 |
| Header - Draper (CL) | 40' Rigid | 425 hp | 79,500 | 30 | 8 | 0.126 | 1.71 | 7.21 | 23.12 | 5.44 | 37.50 | 40.21 | 23.43 | 101.16 |
| Header - Draper (SL) | 25' Rigid | 325 hp | 60,300 | 300 | 8 | 0.176 | 2.37 | 7.65 | 2.43 | 6.63 | 19.10 | 4.23 | 28.55 | 51.88 |
| Header - Draper (SL) | 30' Rigid | 325 hp | 70,600 | 300 | 8 | 0.146 | 1.98 | 6.37 | 2.37 | 5.53 | 16.26 | 4.12 | 23.79 | 44.19 |
| Header - Draper (SL) | 36' Rigid | 355 hp | 74,100 | 300 | 8 | 0.122 | 1.65 | 5.80 | 2.07 | 4.97 | 14.51 | 3.60 | 21.41 | 39.53 |
| Header - Drapper | 40' Rigid | 425 hp | 79,500 | 30 | 8 | 0.110 | 1.48 | 6.25 | 20.04 | 4.72 | 32.50 | 34.85 | 20.31 | 87.67 |
| Header -RiceStrp(CL) | 20' | 265 hp | 50,000 | 300 | 8 | 0.253 | 3.42 | 9.00 | 3.17 | 8.96 | 24.56 | 5.26 | 38.57 | 68.41 |
| Header -RiceStrp(CL) | 24' | 325 hp | 55,400 | 300 | 8 | 0.211 | 2.85 | 9.20 | 2.92 | 7.97 | 22.96 | 4.86 | 34.32 | 62.15 |
| Header -RiceStrp(CL) | 32' | 325 hp | 60,800 | 300 | 8 | 0.158 | 2.14 | 6.90 | 2.41 | 5.98 | 17.43 | 4.00 | 25.74 | 47.18 |
| Header -RiceStrp(SL) | 20' | 265 hp | 50,000 | 300 | 8 | 0.220 | 2.97 | 7.80 | 2.75 | 7.76 | 21.29 | 4.56 | 33.42 | 59.28 |
| Header -RiceStrp(SL) | 24' | 325 hp | 55,400 | 300 | 8 | 0.183 | 2.47 | 7.97 | 2.53 | 6.91 | 19.90 | 4.21 | 29.74 | 53.86 |
| Header -RiceStrp(SL) | 32' | 325 hp | 60,800 | 300 | 8 | 0.137 | 1.85 | 5.98 | 2.09 | 5.18 | 15.11 | 3.47 | 22.31 | 40.89 |
| Header -Soybean | 22' Flex | 265 hp | 32,600 | 300 | 8 | 0.116 | 1.56 | 4.11 | 0.94 | 4.09 | 10.73 | 1.57 | 17.64 | 29.94 |
| Header -Soybean | 25' Flex | 325 hp | 35,000 | 300 | 8 | 0.102 | 1.38 | 4.44 | 0.89 | 3.85 | 10.57 | 1.48 | 16.57 | 28.63 |
| Header -Soybean | 30' Flex | 325 hp | 40,900 | 300 | 8 | 0.085 | 1.15 | 3.70 | 0.87 | 3.21 | 8.93 | 1.44 | 13.81 | 24.19 |
| Header -Soybean | 35' Flex | 355 hp | 47,000 | 300 | 8 | 0.072 | 0.98 | 3.46 | 0.85 | 2.97 | 8.28 | 1.42 | 12.79 | 22.49 |
| Header Wheat/Sorghum | 22' Rigid | 265 hp | 19,800 | 300 | 8 | 0.116 | 1.56 | 4.11 | 0.57 | 4.09 | 10.36 | 0.95 | 17.64 | 28.95 |
| Header Wheat/Sorghum | 25' Rigid | 325 hp | 21,000 | 300 | 8 | 0.102 | 1.38 | 4.44 | 0.53 | 3.85 | 10.21 | 0.89 | 16.57 | 27.68 |
| Header Wheat/Sorghum | 30' Rigid | 325 hp | 25,700 | 300 | 8 | 0.085 | 1.15 | 3.70 | 0.54 | 3.21 | 8.61 | 0.90 | 13.81 | 23.33 |
| Land Plane | 50'x16' | MFWD 190 | 14,300 | 200 | 10 | 0.151 | 2.04 | 3.85 | 0.43 | 0.82 | 7.16 | 1.26 | 5.72 | 14.16 |
| Levee Pull & Seed | 8 Blade | MFWD 170 | 10,400 | 100 | 10 | 0.003 | 0.04 | 0.08 | 0.00 | 0.01 | 0.15 | 0.04 | 0.11 | 0.31 |
| Levee Pull (1m/80a) | 8 blade | MFWD 170 | 7,180 | 100 | 10 | 0.003 | 0.04 | 0.08 | 0.00 | 0.01 | 0.15 | 0.02 | 0.11 | 0.29 |
| Levee Splitter (1/80) | 32" | MFWD 150 | 7,180 | 100 | 10 | 0.004 | 0.05 | 0.08 | 0.00 | 0.01 | 0.16 | 0.03 | 0.11 | 0.31 |
| Module Builder | 4R-38(250) | MFWD 190 | 34,700 | 200 | 10 | 0.257 | 5.81 | 6.55 | 2.23 | 1.40 | 16.01 | 5.06 | 9.73 | 30.81 |
| Module Builder | 4R-38(350) | MFWD 190 | 34,700 | 200 | 10 | 0.257 | 5.81 | 6.55 | 2.23 | 1.40 | 16.01 | 5.06 | 9.73 | 30.81 |
| Module Builder | 4R2x1(350) | MFWD 190 | 34,700 | 200 | 10 | 0.172 | 3.88 | 4.38 | 1.49 | 0.94 | 10.70 | 3.38 | 6.50 | 20.59 |
| Module Builder | 6R-30(355) | MFWD 190 | 34,700 | 200 | 10 | 0.218 | 4.92 | 5.54 | 1.89 | 1.19 | 13.56 | 4.28 | 8.24 | 26.09 |
| Module Builder | 6R-38(355) | MFWD 190 | 34,700 | 200 | 10 | 0.172 | 3.88 | 4.38 | 1.49 | 0.94 | 10.70 | 3.38 | 6.50 | 20.59 |
| NT Grain Drill | 10' | 2WD 130 | 34,100 | 150 | 8 | 0.235 | 5.31 | 4.10 | 3.01 | 0.75 | 13.19 | 6.40 | 5.03 | 24.64 |
| NT Grain Drill | 12' | 2WD 130 | 47,900 | 150 | 8 | 0.163 | 3.69 | 2.84 | 2.94 | 0.52 | 10.00 | 6.25 | 3.49 | 19.75 |
| NT Grain Drill | 15' | MFWD 150 | 55,200 | 150 | 8 | 0.130 | 2.95 | 2.62 | 2.71 | 0.53 | 8.82 | 5.76 | 3.53 | 18.12 |
| NT Grain Drill | 20' | MFWD 170 | 71,200 | 150 | 8 | 0.098 | 2.21 | 2.23 | 2.62 | 0.45 | 7.52 | 5.57 | 3.13 | 16.23 |
| NT Grain Drill | 24' | MFWD 190 | 90,400 | 150 | 8 | 0.081 | 1.84 | 2.08 | 2.77 | 0.44 | 7.15 | 5.89 | 3.09 | 16.14 |
| NT Grain Drill | 30' | MFWD 225 | 103,000 | 150 | 8 | 0.065 | 1.47 | 1.97 | 2.52 | 0.39 | 6.36 | 5.37 | 2.69 | 14.44 |
| NT Grain Drill & Pre | 10' | 2WD 130 | 41,400 | 150 | 8 | 0.211 | 4.77 | 3.68 | 3.28 | 0.68 | 12.41 | 6.98 | 4.52 | 23.92 |
| NT Grain Drill & Pre | 12' | 2WD 130 | 55,200 | 150 | 8 | 0.176 | 3.97 | 3.06 | 3.64 | 0.56 | 11.26 | 7.75 | 3.76 | 22.78 |
| NT Grain Drill & Pre | 15' | MFWD 150 | 62,400 | 150 | 8 | 0.141 | 3.18 | 2.83 | 3.30 | 0.57 | 9.88 | 7.01 | 3.80 | 20.70 |
| NT Grain Drill & Pre | 20' | MFWD 170 | 78,400 | 150 | 8 | 0.105 | 2.38 | 2.40 | 3.10 | 0.48 | 8.39 | 6.61 | 3.37 | 18.38 |
| NT Grain Drill & Pre | 24' | MFWD 190 | 97,700 | 150 | 8 | 0.088 | 1.98 | 2.24 | 3.22 | 0.48 | 7.94 | 6.86 | 3.32 | 18.13 |
| NT Grain Drill & Pre | 30' | MFWD 225 | 111,000 | 150 | 8 | 0.070 | 1.59 | 2.12 | 2.93 | 0.42 | 7.07 | 6.23 | 2.90 | 16.21 |
| NT Plant&Pre-Folding | 8R-38 | MFWD 170 | 65,000 | 150 | 8 | 0.083 | 1.88 | 1.90 | 2.03 | 0.38 | 6.21 | 4.33 | 2.67 | 13.21 |
| NT Plant&Pre-Folding | 8R-38 2x1 | MFWD 170 | 102,000 | 150 | 8 | 0.055 | 1.25 | 1.26 | 2.12 | 0.25 | 4.90 | 4.52 | 1.77 | 11.21 |
| NT Plant&Pre-Folding | 12R-20 | MFWD 190 | 78,300 | 150 | 8 | 0.105 | 2.38 | 2.68 | 3.10 | 0.57 | 8.76 | 6.60 | 3.99 | 19.35 |
| NT Plant&Pre-Folding | 12R-30 | MFWD 190 | 87,500 | 150 | 8 | 0.070 | 1.59 | 1.79 | 2.31 | 0.38 | 6.08 | 4.91 | 2.66 | 13.66 |
| NT Plant&Pre-Folding | 12R-38 | MFWD 190 | 102,000 | 150 | 8 | 0.055 | 1.25 | 1.41 | 2.12 | 0.30 | 5.10 | 4.52 | 2.10 | 11.73 |
| NT Plant&Pre-Folding | 16R-30 | MFWD 190 | 130,000 | 150 | 8 | 0.052 | 1.19 | 1.34 | 2.57 | 0.28 | 5.40 | 5.48 | 1.99 | 12.88 |
| NT Plant&Pre-Folding | 23R-15 | MFWD 190 | 163,000 | 150 | 8 | 0.073 | 1.65 | 1.86 | 4.48 | 0.40 | 8.41 | 9.54 | 2.77 | 20.73 |
| NT Plant&Pre-Folding | 24R-20 | MFWD 190 | 182,000 | 150 | 8 | 0.052 | 1.19 | 1.34 | 3.60 | 0.28 | 6.43 | 7.67 | 1.99 | 16.10 |
| NT Plant&Pre-Folding | 24R-30 | MFWD 190 | 200,000 | 150 | 8 | 0.035 | 0.79 | 0.89 | 2.64 | 0.19 | 4.52 | 5.62 | 1.33 | 11.48 |
| NT Plant&Pre-Folding | 31R-15 | MFWD 225 | 194,000 | 150 | 8 | 0.054 | 1.23 | 1.64 | 3.97 | 0.32 | 7.18 | 8.45 | 2.25 | 17.88 |
| NT Plant&Pre-Folding | 32R-15 | MFWD 225 | 210,000 | 150 | 8 | 0.052 | 1.19 | 1.59 | 4.16 | 0.31 | 7.26 | 8.85 | 2.18 | 18.29 |
| NT Plant&Pre-Rigid | 4R-30 | 2WD 130 | 29,300 | 150 | 8 | 0.211 | 4.77 | 3.68 | 2.32 | 0.68 | 11.45 | 4.94 | 4.52 | 20.92 |
| NT Plant&Pre-Rigid | 4R-38 | 2WD 130 | 35,200 | 150 | 8 | 0.166 | 3.75 | 2.89 | 2.19 | 0.53 | 9.39 | 4.67 | 3.56 | 17.62 |
| NT Plant&Pre-Rigid | 6R-30 | MFWD 150 | 43,100 | 150 | 8 | 0.141 | 3.18 | 2.83 | 2.27 | 0.57 | 8.86 | 4.84 | 3.80 | 17.51 |
| NT Plant&Pre-Rigid | 6R-38 | MFWD 150 | 41,800 | 150 | 8 | 0.111 | 2.51 | 2.23 | 1.74 | 0.45 | 6.94 | 3.71 | 3.00 | 13.66 |
| NT Plant&Pre-Rigid | 8R-30 | MFWD 170 | 53,100 | 150 | 8 | 0.105 | 2.38 | 2.40 | 2.10 | 0.48 | 7.38 | 4.47 | 3.37 | 15.24 |
| NT Plant&Pre-Rigid | 8R-38 | MFWD 170 | 50,600 | 150 | 8 | 0.083 | 1.88 | 1.90 | 1.58 | 0.38 | 5.76 | 3.37 | 2.67 | 11.80 |
| NT Plant&Pre-Rigid | 11R-15 | MFWD 170 | 63,500 | 150 | 8 | 0.143 | 3.24 | 3.27 | 3.42 | 0.66 | 10.61 | 7.28 | 4.59 | 22.49 |
| NT Plant&Pre-Rigid | 11R-20 | MFWD 170 | 62,300 | 150 | 8 | 0.115 | 2.60 | 2.62 | 2.70 | 0.53 | 8.47 | 5.74 | 3.69 | 17.90 |
| NT Plant&Pre-Rigid | 12R-20 | MFWD 190 | 65,000 | 150 | 8 | 0.105 | 2.38 | 2.68 | 2.57 | 0.57 | 8.23 | 5.48 | 3.99 | 17.70 |
| NT Plant&Pre-Rigid | 12R-30 | MFWD 190 | 79,300 | 150 | 8 | 0.070 | 1.59 | 1.79 | 2.09 | 0.38 | 5.86 | 4.45 | 2.66 | 12.98 |
| NT Plant&Pre-Rigid | 15R-15 | MFWD 190 | 80,900 | 150 | 8 | 0.113 | 2.55 | 2.87 | 3.43 | 0.61 | 9.47 | 7.29 | 4.27 | 21.04 |
| NT Plant&Pre-TwinRow | 12R-30/40 | MFWD 225 | 148,000 | 150 | 8 | 0.055 | 1.25 | 1.67 | 3.08 | 0.33 | 6.35 | 6.56 | 2.29 | 15.21 |
| NT Plant&Pre-TwinRow | 8R-30/40 | MFWD 225 | 121,000 | 150 | 8 | 0.083 | 1.88 | 2.51 | 3.79 | 0.49 | 8.69 | 8.06 | 3.44 | 20.20 |
| NT Plant-Folding | 8R-38 | MFWD 170 | 57,800 | 150 | 8 | 0.077 | 1.75 | 1.76 | 1.68 | 0.35 | 5.56 | 3.57 | 2.48 | 11.61 |
| NT Plant-Folding | 8R-38 2x1 | MFWD 170 | 93,000 | 150 | 8 | 0.051 | 1.16 | 1.17 | 1.80 | 0.23 | 4.38 | 3.83 | 1.65 | 9.86 |
| NT Plant-Folding | 12R-20 | MFWD 190 | 71,100 | 150 | 8 | 0.098 | 2.21 | 2.49 | 2.61 | 0.53 | 7.86 | 5.56 | 3.70 | 17.14 |
| NT Plant-Folding | 12R-30 | MFWD 190 | 78,900 | 150 | 8 | 0.065 | 1.47 | 1.66 | 1.93 | 0.35 | 5.43 | 4.11 | 2.47 | 12.03 |
| NT Plant-Folding | 12R-38 | MFWD 190 | 93,000 | 150 | 8 | 0.051 | 1.16 | 1.31 | 1.80 | 0.28 | 4.56 | 3.83 | 1.95 | 10.35 |
| NT Plant-Folding | 16R-30 | MFWD 190 | 122,000 | 150 | 8 | 0.049 | 1.10 | 1.24 | 2.24 | 0.26 | 4.87 | 4.77 | 1.85 | 11.50 |
| NT Plant-Folding | 23R-15 | MFWD 190 | 155,000 | 150 | 8 | 0.068 | 1.53 | 1.73 | 3.96 | 0.37 | 7.61 | 8.42 | 2.57 | 18.61 |
| NT Plant-Folding | 24R-20 | MFWD 190 | 174,000 | 150 | 8 | 0.049 | 1.10 | 1.24 | 3.20 | 0.26 | 5.83 | 6.81 | 1.85 | 14.49 |
| NT Plant-Folding | 24R-30 | MFWD 190 | 184,000 | 150 | 8 | 0.032 | 0.73 | 0.83 | 2.25 | 0.17 | 4.00 | 4.80 | 1.23 | 10.04 |
| NT Plant-Folding | 31R-15 | MFWD 225 | 185,000 | 150 | 8 | 0.050 | 1.14 | 1.52 | 3.52 | 0.30 | 6.49 | 7.48 | 2.09 | 16.07 |
| NT Plant-Folding | 32R-15 | MFWD 225 | 201,000 | 150 | 8 | 0.049 | 1.10 | 1.47 | 3.70 | 0.29 | 6.58 | 7.86 | 2.02 | 16.47 |
| NT Plant-Rigid | 4R-30 | 2WD 130 | 22,100 | 150 | 8 | 0.196 | 4.43 | 3.41 | 1.62 | 0.63 | 10.11 | 3.46 | 4.19 | 17.77 |
| NT Plant-Rigid | 4R-38 | 2WD 130 | 27,900 | 150 | 8 | 0.154 | 3.49 | 2.69 | 1.61 | 0.49 | 8.29 | 3.44 | 3.30 | 15.04 |

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (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-30 | MFWD 150 | 35,800 | 150 | 8 | 0.130 | 2.95 | 2.62 | 1.75 | 0.53 | 7.87 | 3.73 | 3.53 | 15.14 |
| NT Plant-Rigid | 6R-38 | MFWD 150 | 34,500 | 150 | 8 | 0.103 | 2.33 | 2.07 | 1.33 | 0.41 | 6.16 | 2.84 | 2.78 | 11.79 |
| NT Plant-Rigid | 8R-30 | MFWD 170 | 45,800 | 150 | 8 | 0.098 | 2.21 | 2.23 | 1.68 | 0.45 | 6.59 | 3.58 | 3.13 | 13.31 |
| NT Plant-Rigid | 8R-38 | MFWD 170 | 43,300 | 150 | 8 | 0.077 | 1.75 | 1.76 | 1.26 | 0.35 | 5.13 | 2.68 | 2.48 | 10.29 |
| NT Plant-Rigid | 11R-15 | MFWD 170 | 56,200 | 150 | 8 | 0.133 | 3.01 | 3.03 | 2.81 | 0.61 | 9.48 | 5.98 | 4.26 | 19.74 |
| NT Plant-Rigid | 11R-20 | MFWD 170 | 55,000 | 150 | 8 | 0.107 | 2.42 | 2.44 | 2.21 | 0.49 | 7.57 | 4.70 | 3.42 | 15.71 |
| NT Plant-Rigid | 12R-20 | MFWD 190 | 57,800 | 150 | 8 | 0.098 | 2.21 | 2.49 | 2.12 | 0.53 | 7.37 | 4.52 | 3.70 | 15.61 |
| NT Plant-Rigid | 12R-30 | MFWD 190 | 70,700 | 150 | 8 | 0.065 | 1.47 | 1.66 | 1.73 | 0.35 | 5.23 | 3.69 | 2.47 | 11.40 |
| NT Plant-Rigid | 15R-15 | MFWD 190 | 72,300 | 150 | 8 | 0.105 | 2.37 | 2.67 | 2.84 | 0.57 | 8.46 | 6.05 | 3.96 | 18.48 |
| NT Plant-TwinRow | 12R-30/40 | MFWD 225 | 139,000 | 150 | 8 | 0.051 | 1.16 | 1.55 | 2.69 | 0.30 | 5.72 | 5.72 | 2.13 | 13.58 |
| NT Plant-TwinRow | 8R-30/40 | MFWD 225 | 114,000 | 150 | 8 | 0.077 | 1.75 | 2.33 | 3.31 | 0.46 | 7.87 | 7.05 | 3.20 | 18.12 |
| Peanut Cond.& Lifter | 6-Row | MFWD 190 | 13,300 | 300 | 20 | 0.100 | 1.35 | 2.54 | 0.22 | 0.54 | 4.66 | 0.37 | 3.77 | 8.81 |
| Peanut Conditioner | 6-Row | MFWD 190 | 15,300 | 300 | 20 | 0.100 | 1.35 | 2.54 | 0.30 | 0.54 | 4.74 | 0.39 | 3.77 | 8.92 |
| Peanut Dig/Invertor | 4R-30 | MFWD 190 | 29,800 | 300 | 15 | 0.235 | 3.18 | 5.99 | 1.74 | 1.28 | 12.22 | 2.34 | 8.90 | 23.47 |
| Peanut Dig/Invertor | 4R-38 | MFWD 190 | 29,800 | 300 | 15 | 0.186 | 2.51 | 4.73 | 1.38 | 1.01 | 9.65 | 1.85 | 7.03 | 18.53 |
| Peanut Dig/Invertor | 6R-38 | MFWD 190 | 43,400 | 300 | 15 | 0.124 | 1.67 | 3.15 | 0.94 | 0.67 | 6.45 | 1.79 | 4.68 | 12.93 |
| Peanut Dump Cart | 6-Row | MFWD 190 | 48,500 | 300 | 20 | 0.310 | 4.18 | 7.88 | 0.87 | 1.69 | 14.64 | 4.16 | 11.70 | 30.51 |
| Peanut Harvester | 4R-30 | MFWD 225 | 137,000 | 300 | 20 | 0.849 | 11.48 | 25.59 | 6.59 | 5.07 | 48.75 | 30.22 | 35.04 | 114.02 |
| Peanut Harvester | 4R-38 | MFWD 225 | 137,000 | 300 | 20 | 0.934 | 12.62 | 28.14 | 7.25 | 5.57 | 53.60 | 34.33 | 38.52 | 126.46 |
| Peanut Harvester | 6R-38 | MFWD 225 | 151,000 | 300 | 20 | 0.625 | 8.44 | 18.81 | 4.56 | 3.73 | 35.55 | 25.30 | 25.76 | 86.63 |
| Peanut Lifter | 6-Row | MFWD 225 | 6,500 | 300 | 20 | 0.100 | 1.35 | 3.01 | 0.13 | 0.59 | 5.09 | 0.16 | 4.12 | 9.38 |
| Peanut Plt&Pre Fold. | 12R-38 | MFWD 190 | 91,000 | 150 | 8 | 0.080 | 1.81 | 2.04 | 2.74 | 0.43 | 7.04 | 5.83 | 3.03 | 15.91 |
| Peanut Plt&Pre Rigid | 8R-30 | MFWD 190 | 46,000 | 150 | 8 | 0.152 | 3.44 | 3.88 | 2.63 | 0.83 | 10.80 | 5.60 | 5.77 | 22.17 |
| Peanut Plt&Pre Rigid | 8R-38 | MFWD 190 | 43,400 | 150 | 8 | 0.120 | 2.72 | 3.07 | 1.96 | 0.66 | 8.42 | 4.17 | 4.56 | 17.16 |
| Pipe Spool 160ac | 1/4m roll | 2WD 130 | 3,600 | 15 | 12 | 0.003 | 0.09 | 0.05 | 0.00 | 0.01 | 0.16 | 0.07 | 0.06 | 0.31 |
| Pipe Trailer 1m/160a | 30' | 2WD 130 | 1,380 | 100 | 15 | 0.003 | 0.18 | 0.06 | 0.00 | 0.01 | 0.26 | 0.00 | 0.08 | 0.35 |
| Plant & Pre-Folding | 8R-38 | MFWD 170 | 57,900 | 150 | 8 | 0.080 | 1.81 | 1.82 | 1.74 | 0.37 | 5.75 | 3.70 | 2.56 | 12.02 |
| Plant & Pre-Folding | 8R-38 2x1 | MFWD 170 | 91,000 | 150 | 8 | 0.053 | 1.20 | 1.21 | 1.82 | 0.24 | 4.49 | 3.87 | 1.70 | 10.07 |
| Plant & Pre-Folding | 12R-20 | MFWD 190 | 67,600 | 150 | 8 | 0.101 | 2.29 | 2.58 | 2.57 | 0.55 | 8.00 | 5.47 | 3.83 | 17.31 |
| Plant & Pre-Folding | 12R-30 | MFWD 190 | 76,800 | 150 | 8 | 0.067 | 1.52 | 1.72 | 1.94 | 0.37 | 5.56 | 4.14 | 2.55 | 12.26 |
| Plant & Pre-Folding | 12R-38 | MFWD 190 | 91,000 | 150 | 8 | 0.053 | 1.20 | 1.35 | 1.82 | 0.29 | 4.68 | 3.87 | 2.01 | 10.57 |
| Plant & Pre-Folding | 16R-30 | MFWD 190 | 116,000 | 150 | 8 | 0.050 | 1.14 | 1.29 | 2.20 | 0.27 | 4.92 | 4.69 | 1.91 | 11.53 |
| Plant & Pre-Folding | 23R-15 | MFWD 190 | 143,000 | 150 | 8 | 0.070 | 1.59 | 1.79 | 3.78 | 0.38 | 7.55 | 8.03 | 2.66 | 18.25 |
| Plant & Pre-Folding | 24R-20 | MFWD 190 | 161,000 | 150 | 8 | 0.050 | 1.14 | 1.29 | 3.06 | 0.27 | 5.77 | 6.51 | 1.91 | 14.21 |
| Plant & Pre-Folding | 24R-30 | MFWD 190 | 178,000 | 150 | 8 | 0.033 | 0.76 | 0.86 | 2.25 | 0.18 | 4.06 | 4.80 | 1.27 | 10.15 |
| Plant & Pre-Folding | 31R-15 | MFWD 225 | 166,000 | 150 | 8 | 0.052 | 1.18 | 1.57 | 3.26 | 0.31 | 6.34 | 6.94 | 2.16 | 15.45 |
| Plant & Pre-Folding | 32R-15 | MFWD 225 | 181,000 | 150 | 8 | 0.050 | 1.14 | 1.52 | 3.44 | 0.30 | 6.42 | 7.32 | 2.09 | 15.84 |
| Plant & Pre-Rigid | 4R-30 | 2WD 130 | 25,800 | 150 | 8 | 0.203 | 4.58 | 3.53 | 1.96 | 0.65 | 10.73 | 4.17 | 4.34 | 19.25 |
| Plant & Pre-Rigid | 4R-38 | 2WD 130 | 31,600 | 150 | 8 | 0.159 | 3.60 | 2.78 | 1.89 | 0.51 | 8.80 | 4.02 | 3.41 | 16.24 |
| Plant & Pre-Rigid | 6R-30 | MFWD 150 | 25,900 | 150 | 8 | 0.135 | 3.05 | 2.71 | 1.31 | 0.54 | 7.63 | 2.79 | 3.65 | 14.08 |
| Plant & Pre-Rigid | 6R-38 | MFWD 150 | 36,400 | 150 | 8 | 0.106 | 2.41 | 2.14 | 1.45 | 0.43 | 6.45 | 3.10 | 2.88 | 12.43 |
| Plant & Pre-Rigid | 8R-30 | MFWD 170 | 46,000 | 150 | 8 | 0.101 | 2.29 | 2.31 | 1.75 | 0.46 | 6.82 | 3.72 | 3.24 | 13.79 |
| Plant & Pre-Rigid | 8R-38 | MFWD 170 | 43,400 | 150 | 8 | 0.080 | 1.81 | 1.82 | 1.30 | 0.37 | 5.31 | 2.77 | 2.56 | 10.65 |
| Plant & Pre-Rigid | 11R-15 | MFWD 170 | 53,700 | 150 | 8 | 0.148 | 3.34 | 3.37 | 2.98 | 0.68 | 10.38 | 6.34 | 4.73 | 21.46 |
| Plant & Pre-Rigid | 11R-20 | MFWD 170 | 52,500 | 150 | 8 | 0.110 | 2.50 | 2.52 | 2.18 | 0.51 | 7.72 | 4.64 | 3.54 | 15.91 |
| Plant & Pre-Rigid | 12R-20 | MFWD 190 | 54,300 | 150 | 8 | 0.101 | 2.29 | 2.58 | 2.06 | 0.55 | 7.49 | 4.39 | 3.83 | 15.72 |
| Plant & Pre-Rigid | 12R-30 | MFWD 190 | 68,600 | 150 | 8 | 0.067 | 1.52 | 1.72 | 1.74 | 0.37 | 5.36 | 3.70 | 2.55 | 11.61 |
| Plant & Pre-Rigid | 15R-15 | MFWD 190 | 67,500 | 150 | 8 | 0.108 | 2.45 | 2.76 | 2.74 | 0.59 | 8.55 | 5.84 | 4.10 | 18.50 |
| Plant & Pre-TwinRow | 12R-30/40 | MFWD 225 | 137,000 | 150 | 8 | 0.053 | 1.20 | 1.60 | 2.74 | 0.31 | 5.87 | 5.83 | 2.20 | 13.91 |
| Plant & Pre-TwinRow | 8R-30/40 | MFWD 225 | 114,000 | 150 | 8 | 0.080 | 1.81 | 2.41 | 3.43 | 0.47 | 8.13 | 7.29 | 3.30 | 18.74 |
| Plant - Folding | 8R-38 | MFWD 170 | 50,600 | 150 | 8 | 0.074 | 1.68 | 1.69 | 1.41 | 0.34 | 5.13 | 3.00 | 2.38 | 10.52 |
| Plant - Folding | 8R-38 2x1 | MFWD 170 | 82,300 | 150 | 8 | 0.049 | 1.11 | 1.12 | 1.53 | 0.22 | 4.00 | 3.25 | 1.58 | 8.85 |
| Plant - Folding | 12R-20 | MFWD 190 | 60,400 | 150 | 8 | 0.094 | 2.12 | 2.39 | 2.13 | 0.51 | 7.17 | 4.54 | 3.56 | 15.27 |
| Plant - Folding | 12R-30 | MFWD 190 | 68,200 | 150 | 8 | 0.062 | 1.41 | 1.59 | 1.60 | 0.34 | 4.96 | 3.41 | 2.37 | 10.76 |
| Plant - Folding | 12R-38 | MFWD 190 | 82,300 | 150 | 8 | 0.049 | 1.11 | 1.26 | 1.53 | 0.27 | 4.18 | 3.25 | 1.87 | 9.31 |
| Plant - Folding | 16R-30 | MFWD 190 | 10,700 | 150 | 8 | 0.047 | 1.06 | 1.19 | 0.18 | 0.25 | 2.70 | 0.40 | 1.78 | 4.89 |
| Plant - Folding | 23R-15 | MFWD 190 | 134,000 | 150 | 8 | 0.065 | 1.47 | 1.66 | 3.29 | 0.35 | 6.79 | 6.99 | 2.47 | 16.25 |
| Plant - Folding | 24R-20 | MFWD 190 | 152,000 | 150 | 8 | 0.047 | 1.06 | 1.19 | 2.68 | 0.25 | 5.20 | 5.71 | 1.78 | 12.70 |
| Plant - Folding | 24R-30 | MFWD 190 | 178,000 | 150 | 8 | 0.031 | 0.70 | 0.79 | 2.09 | 0.17 | 3.77 | 4.45 | 1.18 | 9.42 |
| Plant - Folding | 31R-15 | MFWD 225 | 157,000 | 150 | 8 | 0.048 | 1.09 | 1.46 | 2.86 | 0.29 | 5.72 | 6.09 | 2.00 | 13.83 |
| Plant - Folding | 32R-15 | MFWD 225 | 173,000 | 150 | 8 | 0.047 | 1.06 | 1.41 | 3.05 | 0.28 | 5.82 | 6.50 | 1.94 | 14.26 |
| Plant - Rigid | 4R-30 | 2WD 130 | 18,500 | 150 | 8 | 0.188 | 4.25 | 3.28 | 1.30 | 0.60 | 9.45 | 2.78 | 4.03 | 16.26 |
| Plant - Rigid | 4R-38 | 2WD 130 | 24,300 | 150 | 8 | 0.148 | 3.35 | 2.58 | 1.35 | 0.47 | 7.76 | 2.87 | 3.17 | 13.81 |
| Plant - Rigid | 6R-30 | MFWD 150 | 30,500 | 150 | 8 | 0.125 | 2.83 | 2.52 | 1.43 | 0.51 | 7.30 | 3.05 | 3.39 | 13.75 |
| Plant - Rigid | 6R-38 | MFWD 150 | 29,200 | 150 | 8 | 0.099 | 2.24 | 1.99 | 1.08 | 0.40 | 5.72 | 2.31 | 2.67 | 10.71 |
| Plant - Rigid | 8R-30 | MFWD 170 | 38,700 | 150 | 8 | 0.094 | 2.12 | 2.14 | 1.36 | 0.43 | 6.07 | 2.90 | 3.01 | 11.99 |
| Plant - Rigid | 8R-38 | MFWD 170 | 36,200 | 150 | 8 | 0.074 | 1.68 | 1.69 | 1.01 | 0.34 | 4.73 | 2.15 | 2.38 | 9.26 |
| Plant - Rigid | 11R-15 | MFWD 170 | 46,400 | 150 | 8 | 0.137 | 3.10 | 3.13 | 2.39 | 0.63 | 9.26 | 5.09 | 4.39 | 18.75 |
| Plant - Rigid | 11R-20 | MFWD 170 | 45,200 | 150 | 8 | 0.103 | 2.32 | 2.34 | 1.74 | 0.47 | 6.89 | 3.71 | 3.29 | 13.89 |
| Plant - Rigid | 12R-20 | MFWD 190 | 47,100 | 150 | 8 | 0.094 | 2.12 | 2.39 | 1.66 | 0.51 | 6.70 | 3.54 | 3.56 | 13.80 |
| Plant - Rigid | 12R-30 | MFWD 190 | 59,900 | 150 | 8 | 0.062 | 1.41 | 1.59 | 1.41 | 0.34 | 4.77 | 3.00 | 2.37 | 10.14 |
| Plant - Rigid | 15R-15 | 2WD 150 | 58,900 | 150 | 8 | 0.094 | 2.12 | 1.89 | 2.08 | 0.32 | 6.42 | 4.42 | 2.13 | 12.98 |
| Plant - TwinRow | 12R-30/40 | MFWD 225 | 128,000 | 150 | 8 | 0.049 | 1.11 | 1.49 | 2.38 | 0.29 | 5.29 | 5.06 | 2.04 | 12.40 |
| Plant - TwinRow | 8R-30/40 | MFWD 225 | 107,000 | 150 | 8 | 0.074 | 1.68 | 2.24 | 2.99 | 0.44 | 7.36 | 6.35 | 3.07 | 16.79 |
| Roller/Cultipacker | 12' | 2WD 130 | 6,910 | 300 | 12 | 0.124 | 1.68 | 2.16 | 0.20 | 0.40 | 4.44 | 0.31 | 2.66 | 7.41 |
| Roller/Cultipacker | 20' | MFWD 150 | 17,000 | 300 | 12 | 0.074 | 1.00 | 1.49 | 0.29 | 0.30 | 3.11 | 0.45 | 2.01 | 5.58 |
| Roller/Cultipacker | 30' | MFWD 170 | 19,100 | 300 | 12 | 0.049 | 0.67 | 1.13 | 0.22 | 0.23 | 2.25 | 0.34 | 1.58 | 4.19 |
| Roller/Cultipacker | 38' | MFWD 225 | 21,300 | 300 | 12 | 0.039 | 0.53 | 1.18 | 0.19 | 0.23 | 2.14 | 0.30 | 1.62 | 4.06 |
| Roller/Stubble | 20' | 2WD 50 | 13,500 | 300 | 12 | 0.074 | 1.00 | 0.49 | 0.23 | 0.05 | 1.79 | 0.36 | 0.35 | 2.51 |
| Roller/Stubble | 32' | MFWD 225 | 22,800 | 300 | 12 | 0.046 | 0.63 | 1.40 | 0.25 | 0.27 | 2.56 | 0.38 | 1.92 | 4.87 |

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2019 (continued)

| Item Name | Size | Power Unit | Purchase Price | Annual Use | Useful Life | Perf Rate | Labor | Fuel | ---R&M--- | Total Imp. P.U. | Direct | --Fixed-- Imp. P.U. | Total Cost | |
|----------------------|-----------|------------|----------------|------------|-------------|-----------|-------------------|------|-----------|-----------------|--------|---------------------|------------|-------|
| | | | dollars | hours | years | hr/ac | -----\$/acre----- | | | | | | | |
| Rotary Cutter | 7' | MFWD 130 | 5,245 | 185 | 10 | 0.168 | 2.27 | 2.92 | 0.71 | 0.59 | 6.51 | 0.55 | 3.98 | 11.06 |
| Rotary Cutter | 12' | 2WD 150 | 11,500 | 185 | 10 | 0.098 | 1.32 | 1.97 | 0.91 | 0.33 | 4.54 | 0.71 | 2.22 | 7.48 |
| Rotary Cutter-Flex | 15' | MFWD 150 | 21,100 | 185 | 10 | 0.078 | 1.06 | 1.57 | 1.34 | 0.31 | 4.30 | 1.04 | 2.12 | 7.46 |
| Rotary Cutter-Flex | 20' | MFWD 150 | 29,300 | 185 | 10 | 0.058 | 0.79 | 1.18 | 1.39 | 0.23 | 3.61 | 1.09 | 1.59 | 6.29 |
| Row Cond & Inc-Fold. | 26' | MFWD 190 | 26,600 | 100 | 10 | 0.063 | 1.14 | 1.61 | 0.42 | 0.34 | 3.52 | 1.97 | 2.39 | 7.89 |
| Row Cond & Inc-Fold. | 38' | MFWD 225 | 33,800 | 100 | 10 | 0.043 | 0.78 | 1.30 | 0.36 | 0.25 | 2.71 | 1.71 | 1.79 | 6.22 |
| Row Cond & Inc-Rigid | 13' | 2WD 130 | 16,800 | 100 | 10 | 0.126 | 2.28 | 2.20 | 0.53 | 0.40 | 5.43 | 2.49 | 2.71 | 10.64 |
| Row Cond & Inc-Rigid | 21' | 2WD 170 | 20,700 | 100 | 10 | 0.078 | 1.41 | 1.78 | 0.40 | 0.29 | 3.90 | 1.90 | 2.01 | 7.82 |
| Row Cond & Inc-Rigid | 26' | MFWD 190 | 23,400 | 100 | 10 | 0.026 | 0.48 | 0.67 | 0.15 | 0.14 | 1.45 | 0.72 | 1.00 | 3.19 |
| Row Cond Folding | 26' | MFWD 225 | 19,300 | 100 | 10 | 0.059 | 0.80 | 1.79 | 0.28 | 0.35 | 3.25 | 1.34 | 2.46 | 7.05 |
| Row Cond Folding | 38' | MFWD 225 | 25,800 | 100 | 10 | 0.040 | 0.55 | 1.23 | 0.26 | 0.24 | 2.29 | 1.23 | 1.68 | 5.20 |
| Row Cond Rigid | 13' | 2WD 130 | 9,540 | 100 | 10 | 0.119 | 1.61 | 2.07 | 0.28 | 0.38 | 4.36 | 1.33 | 2.55 | 8.24 |
| Row Cond Rigid | 21' | 2WD 170 | 13,400 | 100 | 10 | 0.073 | 0.99 | 1.68 | 0.24 | 0.27 | 3.20 | 1.15 | 1.89 | 6.26 |
| Row Cond Rigid | 26' | MFWD 190 | 16,200 | 100 | 10 | 0.059 | 0.80 | 1.51 | 0.24 | 0.32 | 2.89 | 1.13 | 2.25 | 6.28 |
| Row Cond./Roll-Fol | 30' | MFWD 190 | 35,600 | 160 | 10 | 0.062 | 0.84 | 1.58 | 0.55 | 0.34 | 3.33 | 1.62 | 2.36 | 7.31 |
| Row Cond./Roll-Fold. | 26' | MFWD 190 | 26,800 | 160 | 10 | 0.072 | 0.97 | 1.83 | 0.48 | 0.39 | 3.68 | 1.41 | 2.72 | 7.82 |
| Row Cond./Roll-Fold. | 40' | MFWD 225 | 23,700 | 160 | 10 | 0.046 | 0.63 | 1.41 | 0.27 | 0.27 | 2.60 | 0.81 | 1.93 | 5.34 |
| Row Cond./Roll-Rig | 21' | MFWD 190 | 23,000 | 160 | 10 | 0.089 | 1.20 | 2.27 | 0.51 | 0.48 | 4.47 | 1.50 | 3.37 | 9.35 |
| Row Cond./Roll-Rig | 26' | MFWD 190 | 25,800 | 160 | 10 | 0.072 | 0.97 | 1.83 | 0.46 | 0.39 | 3.66 | 1.35 | 2.72 | 7.75 |
| Spin Spreader | 5 ton | MFWD 190 | 12,400 | 100 | 8 | 0.042 | 0.94 | 1.07 | 0.29 | 0.23 | 2.54 | 0.65 | 1.58 | 4.78 |
| Spray (ATV Ropewick) | 75" | 800 CC | 720 | 200 | 8 | 0.260 | 4.69 | 0.45 | 0.08 | 0.49 | 5.73 | 0.11 | 2.13 | 7.98 |
| Spray (ATV) | 20' | 800 CC | 1,700 | 200 | 8 | 0.084 | 1.52 | 0.14 | 0.06 | 0.16 | 1.90 | 0.08 | 0.69 | 2.68 |
| Spray (Band) | 27' Fold | MFWD 170 | 7,270 | 200 | 8 | 0.062 | 1.13 | 1.42 | 0.21 | 0.28 | 3.06 | 0.28 | 2.00 | 5.34 |
| Spray (Band) | 40' Fold | MFWD 170 | 8,630 | 200 | 8 | 0.042 | 0.76 | 0.96 | 0.17 | 0.19 | 2.09 | 0.22 | 1.35 | 3.67 |
| Spray (Band) | 50' Fold | MFWD 170 | 13,700 | 200 | 8 | 0.033 | 0.61 | 0.77 | 0.21 | 0.15 | 1.75 | 0.28 | 1.08 | 3.12 |
| Spray (Band) | 60' Fold | MFWD 170 | 15,600 | 200 | 8 | 0.028 | 0.50 | 0.64 | 0.20 | 0.13 | 1.48 | 0.27 | 0.90 | 2.66 |
| Spray (Bcast/HB) | 13' Rigid | MFWD 150 | 6,760 | 200 | 8 | 0.130 | 2.34 | 2.61 | 0.41 | 0.52 | 5.90 | 0.54 | 3.51 | 9.96 |
| Spray (Bcast/HB) | 20' Rigid | MFWD 150 | 7,920 | 200 | 8 | 0.084 | 1.52 | 1.69 | 0.31 | 0.34 | 3.88 | 0.41 | 2.28 | 6.58 |
| Spray (Bcast/HB) | 27' Fold | MFWD 170 | 15,100 | 200 | 8 | 0.062 | 1.13 | 1.42 | 0.44 | 0.28 | 3.29 | 0.58 | 2.00 | 5.88 |
| Spray (Bcast/HB) | 27' Rigid | MFWD 170 | 9,570 | 200 | 8 | 0.062 | 1.13 | 1.42 | 0.28 | 0.28 | 3.12 | 0.37 | 2.00 | 5.50 |
| Spray (Bcast/HB) | 30' Fold | MFWD 170 | 18,600 | 200 | 8 | 0.056 | 1.01 | 1.28 | 0.49 | 0.26 | 3.05 | 0.65 | 1.80 | 5.50 |
| Spray (Bcast/HB) | 40' Fold | MFWD 170 | 21,800 | 200 | 8 | 0.042 | 0.76 | 0.96 | 0.43 | 0.19 | 2.35 | 0.57 | 1.35 | 4.27 |
| Spray (Broadcast) | 27' | MFWD 170 | 7,270 | 200 | 8 | 0.062 | 1.13 | 1.42 | 0.21 | 0.28 | 3.06 | 0.28 | 2.00 | 5.34 |
| Spray (Broadcast) | 40' | MFWD 170 | 8,630 | 200 | 8 | 0.042 | 0.76 | 0.96 | 0.17 | 0.19 | 2.09 | 0.22 | 1.35 | 3.67 |
| Spray (Broadcast) | 50' | MFWD 170 | 13,700 | 200 | 8 | 0.033 | 0.61 | 0.77 | 0.21 | 0.15 | 1.75 | 0.28 | 1.08 | 3.12 |
| Spray (Broadcast) | 60' | MFWD 170 | 15,600 | 200 | 8 | 0.028 | 0.50 | 0.64 | 0.20 | 0.13 | 1.48 | 0.27 | 0.90 | 2.66 |
| Spray (Direct/Hood) | 8R-30 | MFWD 170 | 20,000 | 200 | 8 | 0.084 | 1.52 | 1.92 | 0.79 | 0.39 | 4.63 | 1.05 | 2.70 | 8.39 |
| Spray (Direct/Hood) | 8R-38 | MFWD 170 | 21,500 | 200 | 8 | 0.066 | 1.20 | 1.52 | 0.67 | 0.30 | 3.71 | 0.89 | 2.13 | 6.74 |
| Spray (Direct/Hood) | 12R-30 | MFWD 170 | 24,800 | 200 | 8 | 0.056 | 1.01 | 1.28 | 0.65 | 0.26 | 3.21 | 0.87 | 1.80 | 5.89 |
| Spray (Direct/Hood) | 12R-38 | MFWD 170 | 26,600 | 200 | 8 | 0.044 | 0.80 | 1.01 | 0.55 | 0.20 | 2.57 | 0.73 | 1.42 | 4.73 |
| Spray (Direct/Layby) | 8R-30 | MFWD 170 | 11,300 | 200 | 8 | 0.084 | 1.52 | 1.92 | 0.44 | 0.39 | 4.29 | 0.59 | 2.70 | 7.58 |
| Spray (Direct/Layby) | 8R-38 | MFWD 170 | 11,300 | 200 | 8 | 0.066 | 1.20 | 1.52 | 0.35 | 0.30 | 3.39 | 0.47 | 2.13 | 5.99 |
| Spray (Direct/Layby) | 8R-38 2x1 | MFWD 170 | 14,900 | 200 | 8 | 0.044 | 0.80 | 1.01 | 0.31 | 0.20 | 2.33 | 0.41 | 1.42 | 4.16 |
| Spray (Direct/Layby) | 12R-30 | MFWD 170 | 14,900 | 200 | 8 | 0.056 | 1.01 | 1.28 | 0.39 | 0.26 | 2.95 | 0.52 | 1.80 | 5.28 |
| Spray (Direct/Layby) | 12R-38 | MFWD 170 | 14,900 | 200 | 8 | 0.044 | 0.80 | 1.01 | 0.31 | 0.20 | 2.33 | 0.41 | 1.42 | 4.16 |
| Spray (Direct/Layby) | 16R-20 | MFWD 225 | 17,100 | 200 | 8 | 0.062 | 1.13 | 1.88 | 0.50 | 0.37 | 3.89 | 0.66 | 2.58 | 7.14 |
| Spray (Levee Leaper) | 50' | MFWD 225 | 13,200 | 200 | 8 | 0.033 | 0.61 | 1.01 | 0.20 | 0.20 | 2.04 | 0.27 | 1.39 | 3.71 |
| Spray (Pull Type) | 60' | MFWD 225 | 40,700 | 200 | 8 | 0.028 | 0.50 | 0.84 | 0.53 | 0.16 | 2.06 | 0.71 | 1.16 | 3.94 |
| Spray (Pull Type) | 80' | MFWD 225 | 52,500 | 200 | 8 | 0.021 | 0.38 | 0.63 | 0.52 | 0.12 | 1.66 | 0.69 | 0.87 | 3.22 |
| Spray (Pull Type) | 90' | 2WD 50 | 53,200 | 200 | 8 | 0.018 | 0.33 | 0.12 | 0.46 | 0.01 | 0.94 | 0.62 | 0.08 | 1.65 |
| Spray (Pull Type) | 120' | MFWD 225 | 80,900 | 200 | 8 | 0.014 | 0.25 | 0.42 | 0.53 | 0.08 | 1.29 | 0.71 | 0.58 | 2.58 |
| Spray (Ropewick) | 20' | MFWD 190 | 4,100 | 200 | 8 | 0.084 | 1.52 | 2.15 | 0.16 | 0.46 | 4.30 | 0.21 | 3.19 | 7.71 |
| Spray (Spot) | 27' | MFWD 170 | 7,270 | 200 | 8 | 0.062 | 1.13 | 1.42 | 0.21 | 0.28 | 3.06 | 0.28 | 2.00 | 5.34 |
| Spray (Spot) | 40' | MFWD 170 | 8,630 | 200 | 8 | 0.042 | 0.76 | 0.96 | 0.17 | 0.19 | 2.09 | 0.22 | 1.35 | 3.67 |
| Spray (Spot) | 50' | MFWD 170 | 13,700 | 200 | 8 | 0.033 | 0.61 | 0.77 | 0.21 | 0.15 | 1.75 | 0.28 | 1.08 | 3.12 |
| Spray (Spot) | 60' | MFWD 225 | 15,600 | 200 | 8 | 0.028 | 0.50 | 0.84 | 0.20 | 0.16 | 1.73 | 0.27 | 1.16 | 3.17 |
| Stalk Shredder | 14' | MFWD 150 | 21,100 | 200 | 10 | 0.117 | 1.59 | 2.36 | 2.17 | 0.47 | 6.61 | 1.45 | 3.18 | 11.24 |
| Stalk Shredder Flex | 20' | MFWD 150 | 29,300 | 200 | 10 | 0.082 | 1.11 | 1.65 | 2.11 | 0.33 | 5.22 | 1.41 | 2.22 | 8.85 |
| Stalk Shredder-Flail | 12' | MFWD 150 | 17,400 | 200 | 10 | 0.137 | 1.85 | 2.76 | 2.09 | 0.55 | 7.26 | 1.39 | 3.71 | 12.37 |
| Stalk Shredder-Flail | 15' | MFWD 150 | 21,900 | 200 | 10 | 0.110 | 1.48 | 2.20 | 2.10 | 0.44 | 6.24 | 1.40 | 2.96 | 10.62 |
| Stalk Shredder-Flail | 18' | MFWD 150 | 29,200 | 200 | 10 | 0.091 | 1.23 | 1.84 | 2.34 | 0.37 | 5.79 | 1.56 | 2.47 | 9.83 |
| Stalk Shredder-Flail | 20' | MFWD 150 | 29,000 | 200 | 10 | 0.082 | 1.11 | 1.65 | 2.09 | 0.33 | 5.19 | 1.39 | 2.22 | 8.82 |
| Stalk Shredder-Flail | 25' | MFWD 150 | 41,000 | 200 | 10 | 0.066 | 0.89 | 1.32 | 2.36 | 0.26 | 4.85 | 1.58 | 1.78 | 8.21 |
| Subsoiler | 3 shank | MFWD 190 | 5,810 | 100 | 15 | 0.204 | 2.76 | 5.19 | 0.39 | 1.11 | 9.46 | 1.11 | 7.71 | 18.30 |
| Subsoiler | 4 shank | MFWD 225 | 9,200 | 100 | 15 | 0.153 | 2.07 | 4.62 | 0.47 | 0.91 | 8.08 | 1.32 | 6.33 | 15.75 |
| Subsoiler | 5 shank | MFWD 225 | 12,600 | 100 | 15 | 0.122 | 1.65 | 3.68 | 0.51 | 0.73 | 6.58 | 1.44 | 5.04 | 13.07 |
| Subsoiler low-till | 6 shank | MFWD 225 | 14,600 | 100 | 15 | 0.102 | 1.38 | 3.07 | 0.49 | 0.60 | 5.56 | 1.40 | 4.21 | 11.17 |
| Subsoiler low-till | 8 shank | MFWD 225 | 20,000 | 100 | 15 | 0.076 | 1.03 | 2.30 | 0.51 | 0.45 | 4.30 | 1.43 | 3.15 | 8.89 |

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, 2019

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

(continued)

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

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

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

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

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

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

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

| Item name | Unit | Wage Rate |
|---------------------|-----------------------------------|-----------|
| OPERATOR LABOR | hour | 14.23 |
| IRRIGATE LABOR | hour | 9.06 |
| HAND LABOR | hour | 9.06 |
| HAND. & STOR. LABOR | hour | 9.06 |
| RICE MGT. LABOR | hour | 9.06 |
| CROP ENTERPRISE | UNALLOCATED LABOR MULTIPLIERS (%) | |
| Corn | | 90 |
| Cotton | | 80 |
| Grain Sorghum | | 90 |
| Peanuts | | 80 |
| Rice | | 90 |
| Soybeans | | 90 |
| Wheat | | 80 |

Appendix Table 7. Futures contract prices, basis levels, forward contract prices, and loan rates used in row crop budgets, Mississippi, 2019

| Crop | unit | Futures Contract Month | Futures Contract Price ^a | Basis ^b | Forward Contract Price ^c | Loan Rate ^d | Budget Price ^e |
|---------------|------|------------------------|-------------------------------------|--------------------|-------------------------------------|------------------------|---------------------------|
| Corn | bu | Dec '19 | 4.00 | -0.20 | 3.80 | 2.10 | 3.80 |
| Cotton Lint | lb | Dec '19 | 0.7572 | -0.0158 | 0.7414 | 0.52 | 0.7414 |
| Cottonseed | lb | | | | | | 0.10 ^f |
| Grain Sorghum | bu | | | | 3.61 | 2.02 | 3.61 |
| Peanuts | ton | | | | 385.00 | 355.00 | 385.00 |
| Soybeans | bu | Nov '19 | 9.29 | +0.01 | 9.30 | 5.21 | 9.30 |
| Rice | bu | Nov '19 | 4.98 | -0.38 | 4.60 | 2.96 | 4.60 |
| Wheat | bu | Jul '19 | 5.52 | -0.15 | 5.37 | 2.76 | 5.37 |

^a Average of the daily closing futures contract prices during the first 5 trading days in October 2018 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 2018 for corn, soybeans and wheat at Greenville, MS. Rice basis is a weekly average price for river point delivery. June harvest delivery for wheat. September harvest delivery for corn, rice and soybeans. October harvest delivery for cotton.

^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 2018 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2018 Farm-stored Loan Rate for long grain rough rice. National 2019 Upland Cotton Marketing Assistance Loan Base Rate for cotton lint.

^e Price used in MSU Extension Service Planning Budgets.

^f Cottonseed price is the average marketing year price over the years 2008-2017.

Appendix Table 8. Estimated costs for field operations, per acre
 Full-season soybeans irrigated with roll-out pipe
 160-acre system, 9 ac-in., Delta Area, Mississippi, 2019

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

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

Appendix Table 9. Estimated costs for field operations, per acre
 Irrigation with a contour flood system
 80-acre system, 13.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|-------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | TOTAL | | |
| -----dollars----- | | | | | | | | | | |
| Set Up Engine | | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.45 | | | 0.01 | 0.46 | 0.46 |
| Build Outside Levee | | | | | | | | | | |
| Levee Pull (1m/80a) | 8 blade | | 0.37 | 0.09 | 0.22 | | | 0.02 | 0.70 | 0.64 1.34 |
| Survey & Mark Levees | acre | 2.25 | | | | | | 0.06 | 2.31 | 2.31 |
| Build Inside Levees | | | | | | | | | | |
| Levee Pull (1m/80a) | 8 blade | | 0.49 | 0.13 | 0.29 | | | 0.02 | 0.93 | 0.86 1.79 |
| Butt Levees | | | | | | | | | | |
| Blade-Box | 6'-7' | | 0.46 | 0.10 | 0.27 | | | 0.02 | 0.85 | 0.65 1.50 |
| IRRIGATE LABOR | hour | | | | 0.68 | | | 0.02 | 0.70 | 0.70 |
| Apply Water | | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.11 | | | | 0.11 | 0.11 |
| Tear Down Levees | | | | | | | | | | |
| Levee Splitter (1/80) | 32" | | 0.38 | 0.10 | 0.23 | | | 0.02 | 0.73 | 0.67 1.40 |
| Build Inside Levees | | | | | | | | | | |
| Levee Pull (1m/80a) | 8 blade | | 0.49 | 0.13 | 0.29 | | | 0.02 | 0.93 | 0.86 1.79 |
| Butt Levees | | | | | | | | | | |
| Blade-Box | 6'-7' | | 0.46 | 0.10 | 0.27 | | | 0.02 | 0.85 | 0.65 1.50 |
| IRRIGATE LABOR | hour | | | | 0.68 | | | 0.01 | 0.69 | 0.69 |
| Apply Water | | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.11 | | | | 0.11 | 0.11 |
| Tear Down Levees | | | | | | | | | | |
| Levee Splitter (1/80) | 32" | | 0.38 | 0.10 | 0.23 | | | 0.01 | 0.72 | 0.67 1.39 |
| Build Inside Levees | | | | | | | | | | |
| Levee Pull (1m/80a) | 8 blade | | 0.49 | 0.13 | 0.29 | | | 0.01 | 0.92 | 0.86 1.78 |
| Butt Levees | | | | | | | | | | |
| Blade-Box | 6'-7' | | 0.46 | 0.10 | 0.27 | | | 0.01 | 0.84 | 0.65 1.49 |
| IRRIGATE LABOR | hour | | | | 0.68 | | | 0.01 | 0.69 | 0.69 |
| Apply Water | | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.11 | | | | 0.11 | 0.11 |
| Tear Down Levees | | | | | | | | | | |
| Levee Splitter (1/80) | 32" | | 0.38 | 0.10 | 0.23 | | | 0.01 | 0.72 | 0.67 1.39 |
| Tear Down Levees | | | | | | | | | | |
| Levee Splitter (1/80) | 32" | | 0.28 | 0.08 | 0.17 | | | 0.01 | 0.54 | 0.50 1.04 |
| Land Forming (\$113) | each | | | | | | | | | 9.26 9.26 |
| Well & Pump, Flood | each | | | 5.91 | | | | 0.15 | 6.06 | 20.19 26.25 |
| Engine, CF, 75 | each | | | | | | | | | 19.06 19.06 |
| June Irrigation | ac-in | | 9.53 | 2.63 | | | | 0.30 | 12.46 | 12.46 |
| July Irrigation | ac-in | | 9.53 | 2.63 | | | | 0.24 | 12.40 | 12.40 |
| August Irrigation | ac-in | | 9.53 | 2.63 | | | | 0.18 | 12.34 | 12.34 |
| TOTALS | | 2.25 | 33.23 | 14.96 | 5.58 | 0.00 | 1.15 | 57.17 | 56.19 | 113.36 |

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

Appendix Table 10. Estimated costs for field operations, per acre
 Irrigation with a 1/2-mile center pivot system
 530-acre system, 7.5 ac-in., Delta Area, Mississippi, 2019

| OPERATION/ OPERATING INPUT | SIZE/ UNIT | -----DIRECT COST----- | | | | | | FIXED COST | TOTAL COST |
|-------------------------------|---------------|-----------------------|-------|-------|-------|-------|-------|---------------|---------------|
| | | OP INPUT | FUEL | R&M | LABOR | LEASE | INTER | | |
| -----dollars----- | | | | | | | | | |
| Set Up Engine | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.07 | | | 0.07 | 0.07 |
| Maintenance | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.27 | | 0.01 | 0.28 | 0.28 |
| Apply Water | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.04 | | | 0.04 | 0.04 |
| Apply Water | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.05 | | | 0.05 | 0.05 |
| Apply Water | | | | | | | | | |
| IRRIGATE LABOR | hour | | | | 0.04 | | | 0.04 | 0.04 |
| Pivot, 1/2 CP | each | | | 8.60 | | | 0.22 | 8.82 | 39.04 |
| Well & Pump, 1/2 CP | each | | | 1.13 | | | 0.03 | 1.16 | 3.87 |
| Engine, 1/2 CP, 174 | each | | | | | | | | 4.45 |
| June Irr. 3app@.75" | ac-in | | 12.80 | 0.55 | | | 0.33 | 13.68 | 13.68 |
| July Irr. 4app@.75" | ac-in | | 17.06 | 0.74 | | | 0.36 | 18.16 | 18.16 |
| Aug Irr. 3app@.75" | ac-in | | 12.80 | 0.55 | | | 0.20 | 13.55 | 13.55 |
| TOTALS | | 0.00 | 42.66 | 11.57 | 0.47 | 0.00 | 1.15 | 55.85 | 47.36 |

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

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