

Corn, Grain Sorghum, and Wheat 2018 Planning Budgets



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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 2018 planning decisions. This would be a 1-year short-run decision. Decisions beyond 1 year, or long-run decisions, should be based on “Returns Above Specified Expenses.”

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2018 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 to provide educational programs to farmers,
- by lenders as a basis for credit,
- to provide basic data for research, and
- to inform nonfarmers 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. You 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 your specific situation.

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 2017. (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 that 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:

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

$$CRCPA = CRCPH \times PR$$

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 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 committee. Producers should use yield estimates that are reflective of their own operations.

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 2017 crop year. Government payments for commodities are not included in the budgets except to the extent that they are included in loan rates.

The forward contract price for each crop is calculated by adding the basis adjustment to the average settlement price of the appropriate futures contract for the first five trading days in October. The 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 and 9. 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 (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. You should, however, consider these items and factor them into the final budget for your own situation.

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Enterprise Budgets

Table 1.A Estimated costs per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

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	_____
App by Air (3 gal)	appl	5.00	0.2000	1.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.9570	36.69	_____
Potash (60% K2O)	cwt	18.98	1.5000	28.47	_____
Fert 10-34-0	gal	2.59	4.2919	11.12	_____
Zinc Plus	pt	2.99	2.0000	5.98	_____
UAN + Sulfur (28%)	gal	1.31	32.1712	42.14	_____
UAN (32%)	gal	1.17	39.5570	46.28	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2800	1.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.63	34.0000	123.42	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	220.0000	50.60	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4242	5.72	_____
Harvesters	hour	13.51	0.1009	1.36	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3250	2.96	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.1354	1.22	_____
UNALLOCATED LABOR	hour	13.50	0.4020	5.43	_____
DIESEL FUEL					
Tractors	gal	1.80	4.7302	8.53	_____
Harvesters	gal	1.80	1.6890	3.04	_____
Roll-Out Pipe Irr.	gal	1.80	10.5901	19.08	_____
REPAIR & MAINTENANCE					
Implements	acre	7.52	1.0000	7.52	_____
Tractors	acre	2.67	1.0000	2.67	_____
Harvesters	acre	3.73	1.0000	3.73	_____
Roll-Out Pipe Irr.	acre	6.88	1.0000	6.88	_____
INTEREST ON OP. CAP.	acre	14.18	1.0000	14.18	_____
TOTAL DIRECT EXPENSES				551.27	_____
FIXED EXPENSES					
Implements	acre	11.58	1.0000	11.58	_____
Tractors	acre	16.81	1.0000	16.81	_____
Harvesters	acre	14.73	1.0000	14.73	_____
Roll-Out Pipe Irr.	acre	53.42	1.0000	53.42	_____
TOTAL FIXED EXPENSES				96.54	_____
TOTAL SPECIFIED EXPENSES				647.81	_____

Note: Cost of production estimates are based on 2017 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.

Table 1.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	220.0000	827.20	_____

TOTAL INCOME				827.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	170.68	1.0000	170.68	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	1.00	1.0000	1.00	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	123.42	1.0000	123.42	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	50.60	1.0000	50.60	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1354	1.22	_____
IRRIGATE LABOR	hour	9.06	0.3875	3.53	_____
OPERATOR LABOR	hour	13.51	0.5252	7.08	_____
UNALLOCATED LABOR	hour	13.50	0.4020	5.43	_____
DIESEL FUEL	gal	1.80	17.0094	30.65	_____
REPAIR & MAINTENANCE	acre	20.80	1.0000	20.80	_____
INTEREST ON OP. CAP.	acre	14.18	1.0000	14.18	_____

TOTAL DIRECT EXPENSES				551.27	_____
RETURNS ABOVE DIRECT EXPENSES				275.93	_____
TOTAL FIXED EXPENSES				96.54	_____

TOTAL SPECIFIED EXPENSES				647.81	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				179.39	_____

Note: Cost of production estimates are based on 2017 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.

Table 1.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, BTRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

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	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)	cwt					1.9570				
Potash (60% K2O)	cwt					1.5000				
Bed/Disk w/roller	12R-30/40	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				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant & Pre-Folding	12R-38	MFWD 225	0.053	1.00	Mar		0.05	0.05	0.10	0.04
Corn Seed BTRR	thous					34.0000				
Fert 10-34-0	gal					4.2919				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					32.1712				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2800				
Corn Consultant	acre			1.00	May	1.0000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					39.5570				
Header - Corn	8R-38	325 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					220.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
Roll-Out Pipe Irr.	acre				Jul	1.0000		0.07	0.07	0.46
TOTALS							0.52	0.52	1.04	0.40

Note: Cost of production estimates are based on 2017 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.

Table 1.D Estimated costs for field operations, per acre
 Corn, stale seedbed, BtRR, 12-row 38", 220 bu yield goal
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER		
-----dollars-----									
Soil Test	acre	3.33					0.16	3.49	3.49
Lime (Spread)	ton	30.64					1.46	32.10	32.10
Spin Spreader	5 ton		0.88	0.57	1.46		0.14	3.05	2.33 5.38
Phosphorus (46% P2O5)	cwt	36.69					1.74	38.43	38.43
Potash (60% K2O)	cwt	28.47					1.35	29.82	29.82
Bed/Disk w/roller	12R-30/40		1.30	1.10	1.60		0.19	4.19	4.41 8.60
App by Air (5 gal)	appl	6.50					0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	4.48					0.14	4.62	4.62
Clarity	pt	5.78					0.18	5.96	5.96
Select Max	pt	12.64					0.40	13.04	13.04
Plant & Pre-Folding	12R-38		1.11	1.98	1.85		0.14	5.08	5.32 10.40
Corn Seed BtRR	thous	123.42					3.42	126.84	126.84
Fert 10-34-0	gal	11.12					0.31	11.43	11.43
Zinc Plus	pt	5.98					0.17	6.15	6.15
Custom Apply Fert	acre	7.50					0.18	7.68	7.68
UAN + Sulfur (28%)	gal	42.14					1.00	43.14	43.14
Spray (Broadcast)	60'		0.59	0.43	0.85		0.04	1.91	1.45 3.36
Atrazine 4L	pt	8.48					0.20	8.68	8.68
Halex GT	pt	28.08					0.67	28.75	28.75
App by Air (3 gal)	appl	1.00					0.02	1.02	1.02
Bifenthrin	oz	1.00					0.02	1.02	1.02
Corn Consultant	acre	6.00					0.12	6.12	6.12
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56		0.07	3.70	2.88 6.58
UAN (32%)	gal	46.28					0.92	47.20	47.20
Header - Corn	8R-38		3.04	5.30	2.59		0.04	10.97	17.09 28.06
Grain Cart Corn	700 bu		0.53	0.42	0.65		0.01	1.61	1.49 3.10
Haul Corn	bu	50.60					0.20	50.80	50.80
Stalk Shredder Flex	20'		1.72	2.54	2.11		0.03	6.40	4.62 11.02
Roll-Out Pipe Irr.	acre	8.25	20.40	7.47	4.59		0.65	41.36	56.95 98.31
TOTALS		468.38	30.65	20.80	17.26	0.00	14.18	551.27	96.54 647.81

Note: Cost of production estimates are based on 2017 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.

Table 1.E Estimated monthly income and expense flows per acre
 Corn, stale seeded, BTRR, 12-row 38", 220 bu yield goa
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	827.20
-----dollars-----												
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	0.00	0.00	0.00	0.00
FERTILIZERS	65.16	0.00	0.00	0.00	0.00	17.10	42.14	46.28	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	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	123.42	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	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	50.60
CUSTOM LIME	30.64	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	6.00	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	3.57	0.00	0.00	0.00	0.00	1.85	0.85	1.79	3.03	0.23	0.59	5.35
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.85	0.00	0.00	0.00	0.00	1.11	0.59	1.08	14.66	4.77	0.30	5.29
REPAIR & MAINTENANCE	1.98	0.00	0.00	0.00	0.00	1.98	0.43	0.99	6.05	0.98	0.13	8.26
INTEREST ON OP. CAP.	5.11	0.00	0.00	0.00	0.93	4.04	2.09	1.15	0.50	0.07	0.01	0.28
TOTAL DIRECT EXPENSES	112.64	0.00	0.00	0.00	30.33	149.50	90.16	59.29	32.49	6.05	1.03	69.78
NET INCOME	-112.64	0.00	0.00	0.00	-30.33	-149.50	-90.16	-59.29	-32.49	-6.05	-1.03	757.42
NET INCOME TO DATE	-112.64	-112.64	-112.64	-112.64	-142.97	-292.47	-382.63	-441.92	-474.41	-480.46	-481.49	275.93

Note: Cost of production estimates are based on 2017 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.

* Lease costs are based on hourly usage costs.

Table 1.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seeded, BtRR, 12-row 38", 220 bu yield goa
 Furrow Irrigated, 13 ac-in., Delta Area, Mississippi, 2018

PRODUCT	---PERCENT---										---PRODUCT PRICE---													
	75	80	85	90	95	100	105	110	115	120	125	75	80	85	90	95	100	105	110	115	120	125		
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70													
PERCENT	---YIELD UNIT---										---dollars---													
50	110.00	bu	-215	-194	-174	-153	-132	-112	-91	-70	-50	-29	-8	-312	-291	-270	-250	-229	-208	-188	-167	-146	-126	-105
60	132.00	bu	-158	-133	-109	-84	-59	-34	-9	15	39	64	89	-255	-230	-205	-180	-155	-131	-106	-81	-56	-31	-7
70	154.00	bu	-101	-72	-43	-14	14	43	71	100	129	158	187	-198	-169	-140	-111	-82	-53	-24	4	33	62	91
80	176.00	bu	-44	-11	21	54	87	120	153	186	219	253	286	-141	-108	-75	-42	-8	24	57	90	123	156	189
90	198.00	bu	12	49	86	123	161	198	235	272	309	347	384	-84	-47	-9	27	64	101	138	176	213	250	287
100	220.00	bu	69	110	151	193	234	275	317	358	400	441	482	-27	13	55	96	138	179	220	262	303	344	386
110	242.00	bu	126	171	217	262	308	353	399	444	490	535	581	29	75	120	166	211	257	302	348	393	439	484
120	264.00	bu	183	232	282	331	381	431	480	530	580	629	679	86	136	185	235	285	334	384	433	483	533	582
130	286.00	bu	240	293	347	401	455	508	562	616	670	723	777	143	197	251	304	358	412	466	519	573	627	681
140	308.00	bu	296	354	412	470	528	586	644	702	760	818	876	200	258	316	374	432	489	547	605	663	721	779
150	330.00	bu	353	415	478	540	602	664	726	788	850	912	974	257	319	381	443	505	567	629	691	753	815	877

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 2017 input prices.

Table 2.A Estimated costs per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

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	_____
App by Air (3 gal)	appl	5.00	0.2000	1.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
Fert 10-34-0	gal	2.59	4.2919	11.12	_____
Zinc Plus	pt	2.99	2.0000	5.98	_____
UAN + Sulfur (28%)	gal	1.31	19.3063	25.29	_____
UAN (32%)	gal	1.17	29.6700	34.71	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2800	1.00	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.63	28.0000	101.64	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3457	4.66	_____
Harvesters	hour	13.51	0.1009	1.36	_____
HAND LABOR					
Implements	hour	9.06	0.1354	1.22	_____
UNALLOCATED LABOR	hour	13.50	0.4020	5.43	_____
DIESEL FUEL					
Tractors	gal	1.80	4.0040	7.21	_____
Harvesters	gal	1.80	1.3770	2.48	_____
REPAIR & MAINTENANCE					
Implements	acre	7.32	1.0000	7.32	_____
Tractors	acre	2.28	1.0000	2.28	_____
Harvesters	acre	3.45	1.0000	3.45	_____
INTEREST ON OP. CAP.	acre	11.74	1.0000	11.74	_____
TOTAL DIRECT EXPENSES				434.71	_____
FIXED EXPENSES					
Implements	acre	10.56	1.0000	10.56	_____
Tractors	acre	14.30	1.0000	14.30	_____
Harvesters	acre	13.61	1.0000	13.61	_____
TOTAL FIXED EXPENSES				38.47	_____
TOTAL SPECIFIED EXPENSES				473.18	_____

Note: Cost of production estimates are based on 2017 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.

Table 2.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	7.50	1.0000	7.50	_____
FERTILIZERS	acre	131.39	1.0000	131.39	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	1.00	1.0000	1.00	_____
SEED/PLANTS	acre	101.64	1.0000	101.64	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1354	1.22	_____
OPERATOR LABOR	hour	13.51	0.4466	6.02	_____
UNALLOCATED LABOR	hour	13.50	0.4020	5.43	_____
DIESEL FUEL	gal	1.80	5.3810	9.69	_____
REPAIR & MAINTENANCE	acre	13.05	1.0000	13.05	_____
INTEREST ON OP. CAP.	acre	11.74	1.0000	11.74	_____

TOTAL DIRECT EXPENSES				434.71	_____
RETURNS ABOVE DIRECT EXPENSES				204.49	_____

TOTAL FIXED EXPENSES				38.47	_____

TOTAL SPECIFIED EXPENSES				473.18	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				166.02	_____

Note: Cost of production estimates are based on 2017 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.

Table 2.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

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	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)	cwt					1.6300				
Potash (60% K2O)	cwt					1.2500				
Bed/Disk w/roller	12R-30/40	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				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant & Pre-Folding	12R-38	MFWD 225	0.053	1.00	Mar		0.05	0.05	0.10	0.04
Corn Seed BtRR	thous					28.0000				
Fert 10-34-0	gal					4.2919				
Zinc Plus	pt					2.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					19.3063				
Spray (Broadcast)	60'	MFWD 225	0.028	1.00	Apr		0.02	0.02	0.04	0.02
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2800				
Corn Consultant	acre			1.00	May	1.0000				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					29.6700				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.44	0.44	0.58	0.40

Note: Cost of production estimates are based on 2017 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.**

Table 2.D Estimated costs for field operations, per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER		
-----dollars-----									
Soil Test	acre	3.33					0.16	3.49	3.49
Lime (Spread)	ton	30.64					1.46	32.10	32.10
Spin Spreader	5 ton		0.88	0.57	1.46		0.14	3.05	2.33 5.38
Phosphorus(46% P2O5)	cwt	30.56					1.45	32.01	32.01
Potash (60% K2O)	cwt	23.73					1.13	24.86	24.86
Bed/Disk w/roller	12R-30/40		1.30	1.10	1.60		0.19	4.19	4.41 8.60
App by Air (5 gal)	appl	6.50					0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	4.48					0.14	4.62	4.62
Clarity	pt	5.78					0.18	5.96	5.96
Select Max	pt	12.64					0.40	13.04	13.04
Plant & Pre-Folding	12R-38		1.11	1.98	1.85		0.14	5.08	5.32 10.40
Corn Seed BtRR	thous	101.64					2.82	104.46	104.46
Fert 10-34-0	gal	11.12					0.31	11.43	11.43
Zinc Plus	pt	5.98					0.17	6.15	6.15
Custom Apply Fert	acre	7.50					0.18	7.68	7.68
UAN + Sulfur (28%)	gal	25.29					0.60	25.89	25.89
Spray (Broadcast)	60'		0.59	0.43	0.85		0.04	1.91	1.45 3.36
Atrazine 4L	pt	8.48					0.20	8.68	8.68
Halex GT	pt	28.08					0.67	28.75	28.75
App by Air (3 gal)	appl	1.00					0.02	1.02	1.02
Bifenthrin	oz	1.00					0.02	1.02	1.02
Corn Consultant	acre	6.00					0.12	6.12	6.12
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56		0.07	3.70	2.88 6.58
UAN (32%)	gal	34.71					0.69	35.40	35.40
Header - Corn	8R-38		2.48	5.02	2.59		0.04	10.13	15.97 26.10
Grain Cart Corn	700 bu		0.53	0.42	0.65		0.01	1.61	1.49 3.10
Haul Corn	bu	39.10					0.15	39.25	39.25
Stalk Shredder Flex	20'		1.72	2.54	2.11		0.03	6.40	4.62 11.02
TOTALS		387.56	9.69	13.05	12.67	0.00	11.74	434.71	38.47 473.18

Note: Cost of production estimates are based on 2017 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.

Table 2.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, BTRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	0.00	0.00	0.00	0.00
FERTILIZERS	54.29	0.00	0.00	0.00	0.00	17.10	25.29	34.71	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	101.64	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	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	39.10
CUSTOM LIME	30.64	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	6.00	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	3.06	0.00	0.00	0.00	0.00	1.85	0.85	1.56	0.00	0.00	0.00	5.35
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	2.18	0.00	0.00	0.00	0.00	1.11	0.59	1.08	0.00	0.00	0.00	4.73
REPAIR & MAINTENANCE	1.67	0.00	0.00	0.00	0.00	1.98	0.43	0.99	0.00	0.00	0.00	7.98
INTEREST ON OP. CAP.	4.53	0.00	0.00	0.00	0.93	3.44	1.69	0.92	0.00	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	99.70	0.00	0.00	0.00	30.33	127.12	72.91	47.26	0.00	0.00	0.00	57.39
NET INCOME	-99.70	0.00	0.00	0.00	-30.33	-127.12	-72.91	-47.26	0.00	0.00	0.00	581.81
NET INCOME TO DATE	-99.70	-99.70	-99.70	-99.70	-130.03	-257.15	-330.06	-377.32	-377.32	-377.32	-377.32	204.49

Note: Cost of production estimates are based on 2017 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.

* Lease costs are based on hourly usage costs.

Table 2.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, BtRR, non-irrigated, 12row 38"
 170 bu yield goal, Delta Area, Mississippi, 2018

PRODUCT	75	80	85	90	95	100	105	110	115	120	125		
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70		
PERCENT	YIELD UNIT												
	---dollars---												
50	85.00	bu	-175	-159	-143	-127	-111	-95	-79	-63	-47	-31	-15
			-213	-197	-181	-165	-149	-133	-117	-101	-86	-70	-54
60	102.00	bu	-131	-112	-93	-73	-54	-35	-16	2	22	41	60
			-169	-150	-131	-112	-93	-73	-54	-35	-16	2	21
70	119.00	bu	-87	-64	-42	-20	2	24	46	69	91	113	136
			-125	-103	-81	-58	-36	-13	8	30	53	75	97
80	136.00	bu	-43	-17	7	33	58	84	110	135	161	186	212
			-81	-56	-30	-5	20	46	71	97	122	148	173
90	153.00	bu	0	29	58	86	115	144	173	202	230	259	288
			-37	-9	19	48	77	106	134	163	192	221	249
100	170.00	bu	44	76	108	140	172	204	236	268	300	332	364
			6	38	70	102	134	166	197	229	261	293	325
110	187.00	bu	88	123	159	194	229	264	299	334	369	405	440
			50	85	120	155	190	226	261	296	331	366	401
120	204.00	bu	132	171	209	247	286	324	362	401	439	477	516
			94	132	170	209	247	286	324	362	401	439	477
130	221.00	bu	176	218	259	301	342	384	426	467	509	550	592
			138	179	221	262	304	346	387	429	470	512	553
140	238.00	bu	220	265	310	354	399	444	489	533	578	623	668
			182	227	271	316	361	406	450	495	540	584	629
150	255.00	bu	264	312	360	408	456	504	552	600	648	696	744
			226	274	322	370	418	465	513	561	609	657	705

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 2017 input prices.

Table 3.A Estimated costs per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2018

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	_____
App by Air (3 gal)	appl	5.00	1.2000	6.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.9570	36.69	_____
Potash (60% K2O)	cwt	18.98	1.5000	28.47	_____
UAN + Sulfur (28%)	gal	1.31	32.1712	42.14	_____
UAN (32%)	gal	1.17	39.5570	46.28	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2804	1.00	_____
Intrepid 2F	oz	2.00	4.0000	8.00	_____
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25	33.0000	8.25	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.24	34.0000	110.16	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	220.0000	50.60	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.6930	9.35	_____
Harvesters	hour	13.51	0.1009	1.36	_____
Self-Propelled	hour	13.51	0.0176	0.24	_____
IRRIGATE LABOR					
Special Labor	hour	9.06	0.3250	2.96	_____
Implements	hour	9.06	0.0625	0.57	_____
HAND LABOR					
Implements	hour	9.06	0.1175	1.06	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.50	0.6597	8.91	_____
DIESEL FUEL					
Tractors	gal	1.80	7.8429	14.13	_____
Harvesters	gal	1.80	1.3770	2.48	_____
Self-Propelled	gal	1.80	0.1586	0.29	_____
Roll-Out Pipe Irr.	gal	1.80	10.5901	19.08	_____
REPAIR & MAINTENANCE					
Implements	acre	9.22	1.0000	9.22	_____
Tractors	acre	4.44	1.0000	4.44	_____
Harvesters	acre	3.45	1.0000	3.45	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
Roll-Out Pipe Irr.	acre	6.88	1.0000	6.88	_____
INTEREST ON OP. CAP.	acre	14.19	1.0000	14.19	_____
TOTAL DIRECT EXPENSES				549.89	_____
FIXED EXPENSES					
Implements	acre	16.10	1.0000	16.10	_____
Tractors	acre	27.90	1.0000	27.90	_____
Harvesters	acre	13.61	1.0000	13.61	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
Roll-Out Pipe Irr.	acre	53.42	1.0000	53.42	_____
TOTAL FIXED EXPENSES				112.23	_____
TOTAL SPECIFIED EXPENSES				662.12	_____

Note: Cost of production estimates are based on 2017 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.

Table 3.B Summary of estimated costs and returns per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	220.0000	827.20	_____

TOTAL INCOME				827.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	12.50	1.0000	12.50	_____
FERTILIZERS	acre	153.58	1.0000	153.58	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	9.00	1.0000	9.00	_____
IRRIGATION SUPPLIES	acre	8.25	1.0000	8.25	_____
SEED/PLANTS	acre	110.16	1.0000	110.16	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	50.60	1.0000	50.60	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1263	1.14	_____
IRRIGATE LABOR	hour	9.06	0.3875	3.53	_____
OPERATOR LABOR	hour	13.51	0.8116	10.95	_____
UNALLOCATED LABOR	hour	13.50	0.6597	8.91	_____
DIESEL FUEL	gal	1.80	19.9688	35.98	_____
REPAIR & MAINTENANCE	acre	24.17	1.0000	24.17	_____
INTEREST ON OP. CAP.	acre	14.19	1.0000	14.19	_____

TOTAL DIRECT EXPENSES				549.89	_____
RETURNS ABOVE DIRECT EXPENSES				277.31	_____
TOTAL FIXED EXPENSES				112.23	_____

TOTAL SPECIFIED EXPENSES				662.12	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				165.08	_____

Note: Cost of production estimates are based on 2017 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.

Table 3.C Estimated resource use for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
						-----hours-----				
Subsoiler	3 shank	MFWD 225	0.204	0.50	Oct		0.10	0.10	0.10	0.09
Disk Harrow	24'	MFWD 225	0.081	1.00	Oct		0.08	0.08	0.08	0.07
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.9570				
Potash (60% K2O)	cwt					1.5000				
Bed/Disk w/roller	12R-30/40	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				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Row Cond./Roll-Fold.	30'	MFWD 225	0.062	1.00	Mar		0.06	0.06	0.06	0.05
Plant - Folding	12R-38	MFWD 225	0.049	1.00	Mar		0.04	0.04	0.09	0.04
Corn Seed RR2	thous					34.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					32.1712				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
Corn Consultant	acre			1.00	May	1.0000				
App by Air (3 gal)	appl					0.2000				
Bifenthrin	oz					1.2804				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					39.5570				
Cultivate	12R-38	MFWD 225	0.054	1.00	May		0.05	0.05	0.05	0.04
App by Air (3 gal)	appl			1.00	Jun	1.0000				
Intrepid 2F	oz					4.0000				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					220.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
Roll-Out Pipe Irr.	acre				Jul	1.0000	0.07	0.07	0.46	
TOTALS							0.81	0.79	1.32	0.65

Note: Cost of production estimates are based on 2017 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.**

Table 3.D Estimated costs for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in.,Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----dollars-----										
Subsoiler	3 shank		2.13	0.82	2.62		0.26	5.83	4.60	10.43
Disk Harrow	24'		1.71	1.48	2.11		0.25	5.55	5.37	10.92
Soil Test	acre	3.33					0.16	3.49		3.49
Lime (Spread)	ton	30.64					1.46	32.10		32.10
Spin Spreader	5 ton		0.88	0.57	1.46		0.14	3.05	2.33	5.38
Phosphorus (46% P2O5)	cwt	36.69					1.74	38.43		38.43
Potash (60% K2O)	cwt	28.47					1.35	29.82		29.82
Bed/Disk w/roller	12R-30/40		1.30	1.10	1.60		0.19	4.19	4.41	8.60
App by Air (5 gal)	appl	6.50					0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48					0.14	4.62		4.62
Clarity	pt	5.78					0.18	5.96		5.96
Select Max	pt	12.64					0.40	13.04		13.04
Row Cond./Roll-Fold.	30'		1.30	0.97	1.60		0.11	3.98	4.05	8.03
Plant - Folding	12R-38		1.03	1.71	1.72		0.12	4.58	4.69	9.27
Corn Seed RR2	thous	110.16					3.05	113.21		113.21
Custom Apply Fert	acre	7.50					0.18	7.68		7.68
UAN + Sulfur (28%)	gal	42.14					1.00	43.14		43.14
Sprayer 600-750gal	60' 175hp		0.29	0.18	0.53		0.02	1.02	1.20	2.22
Atrazine 4L	pt	8.48					0.20	8.68		8.68
Halex GT	pt	28.08					0.67	28.75		28.75
Corn Consultant	acre	6.00					0.12	6.12		6.12
App by Air (3 gal)	appl	1.00					0.02	1.02		1.02
Bifenthrin	oz	1.00					0.02	1.02		1.02
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56		0.07	3.70	2.88	6.58
UAN (32%)	gal	46.28					0.92	47.20		47.20
Cultivate	12R-38		1.13	0.90	1.39		0.07	3.49	3.67	7.16
App by Air (3 gal)	appl	5.00					0.08	5.08		5.08
Intrepid 2F	oz	8.00					0.13	8.13		8.13
Header - Corn	8R-38		2.48	5.02	2.59		0.04	10.13	15.97	26.10
Grain Cart Corn	700 bu		0.53	0.42	0.65		0.01	1.61	1.49	3.10
Haul Corn	bu	50.60					0.20	50.80		50.80
Stalk Shredder Flex	20'		1.72	2.54	2.11		0.03	6.40	4.62	11.02
Roll-Out Pipe Irr.	acre	8.25	20.40	7.47	4.59		0.65	41.36	56.95	98.31
TOTALS		451.02	35.98	24.17	24.53	0.00	14.19	549.89	112.23	662.12

Note: Cost of production estimates are based on 2017 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.

Table 3.E Estimated monthly income and expense flows per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	827.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	5.00	0.00	0.00	0.00
FERTILIZERS	65.16	0.00	0.00	0.00	0.00	0.00	42.14	46.28	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	8.00	0.00	0.00	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	110.16	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	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	50.60
CUSTOM LIME	30.64	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	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	8.30	0.00	0.00	0.00	0.00	3.32	0.53	3.18	3.03	0.23	0.59	5.35
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	6.69	0.00	0.00	0.00	0.00	2.33	0.29	2.21	14.66	4.77	0.30	4.73
REPAIR & MAINTENANCE	4.28	0.00	0.00	0.00	0.00	2.68	0.18	1.89	6.05	0.98	0.13	7.98
INTEREST ON OP. CAP.	5.62	0.00	0.00	0.00	0.93	3.28	2.07	1.22	0.71	0.07	0.01	0.28
TOTAL DIRECT EXPENSES	124.02	0.00	0.00	0.00	30.33	121.77	89.27	62.78	45.70	6.05	1.03	68.94
NET INCOME	-124.02	0.00	0.00	0.00	-30.33	-121.77	-89.27	-62.78	-45.70	-6.05	-1.03	758.26
NET INCOME TO DATE	-124.02	-124.02	-124.02	-124.02	-154.35	-276.12	-365.39	-428.17	-473.87	-479.92	-480.95	277.31

Note: Cost of production estimates are based on 2017 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.

* Lease costs are based on hourly usage costs.

Table 3.F Estimated returns for various price/yield combinations, per acre
 Corn, conventional tillage, RR seed, 12-row 38",
 220 bu yld goal, furrow irrigated, 13 ac-in., Delta Area, Mississippi, 2018

PRODUCT	---PERCENT---										110	115	120	125	
	75	80	85	90	95	100	105	110	115	120					
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70				
PERCENT	---dollars---														
YIELD	---dollars---														
UNIT	---dollars---														
50	110.00	bu	-214	-193	-172	-152	-131	-110	-90	-69	-48	-28	-7		
			-326	-305	-285	-264	-243	-223	-202	-181	-161	-140	-119		
60	132.00	bu	-157	-132	-107	-82	-58	-33	-8	16	41	66	90		
			-269	-244	-219	-195	-170	-145	-120	-95	-71	-46	-21		
70	154.00	bu	-100	-71	-42	-13	15	44	73	102	131	160	189		
			-212	-183	-154	-125	-96	-67	-38	-9	19	47	76		
80	176.00	bu	-43	-10	22	55	88	122	155	188	221	254	287		
			-155	-122	-89	-56	-23	9	42	75	109	142	175		
90	198.00	bu	13	50	87	125	162	199	236	274	311	348	385		
			-98	-61	-24	12	50	87	124	161	199	236	273		
100	220.00	bu	70	111	153	194	235	277	318	360	401	442	484		
			-41	-0	41	82	123	165	206	247	289	330	371		
110	242.00	bu	127	172	218	263	309	354	400	445	491	536	582		
			15	60	106	151	197	242	288	333	379	424	470		
120	264.00	bu	184	234	283	333	382	432	482	531	581	631	680		
			72	121	171	221	270	320	369	419	469	518	568		
130	286.00	bu	241	295	348	402	456	510	563	617	671	725	779		
			129	182	236	290	344	398	451	505	559	613	666		
140	308.00	bu	298	356	414	472	529	587	645	703	761	819	877		
			186	244	301	359	417	475	533	591	649	707	765		
150	330.00	bu	355	417	479	541	603	665	727	789	851	913	975		
			243	305	367	429	491	553	615	677	739	801	863		

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 2017 input prices.

Table 4.A Estimated costs per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

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	_____
App by Air (3 gal)	appl	5.00	1.2000	6.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
UAN + Sulfur (28%)	gal	1.31	19.3063	25.29	_____
UAN (32%)	gal	1.17	29.6700	34.71	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2804	1.00	_____
Intrepid 2F	oz	2.00	4.0000	8.00	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.24	28.0000	90.72	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.5690	7.69	_____
Harvesters	hour	13.51	0.1009	1.36	_____
Self-Propelled	hour	13.51	0.0176	0.24	_____
HAND LABOR					
Implements	hour	9.06	0.1175	1.06	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR	hour	13.50	0.6188	8.36	_____
DIESEL FUEL					
Tractors	gal	1.80	6.5903	11.87	_____
Harvesters	gal	1.80	1.3770	2.48	_____
Self-Propelled	gal	1.80	0.1586	0.29	_____
REPAIR & MAINTENANCE					
Implements	acre	7.75	1.0000	7.75	_____
Tractors	acre	3.75	1.0000	3.75	_____
Harvesters	acre	3.45	1.0000	3.45	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
INTEREST ON OP. CAP.	acre	11.73	1.0000	11.73	_____
TOTAL DIRECT EXPENSES				432.83	_____
FIXED EXPENSES					
Implements	acre	12.08	1.0000	12.08	_____
Tractors	acre	23.52	1.0000	23.52	_____
Harvesters	acre	13.61	1.0000	13.61	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
TOTAL FIXED EXPENSES				50.41	_____
TOTAL SPECIFIED EXPENSES				483.24	_____

Note: Cost of production estimates are based on 2017 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.

Table 4.B Summary of estimated costs and returns per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	12.50	1.0000	12.50	_____
FERTILIZERS	acre	114.29	1.0000	114.29	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	9.00	1.0000	9.00	_____
SEED/PLANTS	acre	90.72	1.0000	90.72	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1263	1.14	_____
OPERATOR LABOR	hour	13.51	0.6876	9.29	_____
UNALLOCATED LABOR	hour	13.50	0.6188	8.36	_____
DIESEL FUEL	gal	1.80	8.1261	14.64	_____
REPAIR & MAINTENANCE	acre	15.13	1.0000	15.13	_____
INTEREST ON OP. CAP.	acre	11.73	1.0000	11.73	_____

TOTAL DIRECT EXPENSES				432.83	_____
RETURNS ABOVE DIRECT EXPENSES				206.37	_____
TOTAL FIXED EXPENSES				50.41	_____

TOTAL SPECIFIED EXPENSES				483.24	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				155.96	_____

Note: Cost of production estimates are based on 2017 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.

Table 4.C Estimated resource use for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	INPUT AMOUNT	POWER IMPLEMENT	POWER UNIT	ALLOC LABOR	UNALL LABOR
-----hours-----										
Subsoiler	3 shank	MFWD 225	0.204	0.50	Oct		0.10	0.10	0.10	0.09
Disk Harrow	24'	MFWD 225	0.081	1.00	Oct		0.08	0.08	0.08	0.07
Soil Test	acre			0.33	Oct	0.3330				
Lime (Spread)	ton			0.33	Oct	0.6660				
Spin Spreader	5 ton	MFWD 225	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus(46% P2O5)	cwt					1.6300				
Potash (60% K2O)	cwt					1.2500				
Bed/Disk (Hipper)Rd	8R-38	MFWD 225	0.074	1.00	Oct		0.07	0.07	0.07	0.06
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Row Cond Rigid	26'	MFWD 225	0.059	1.00	Mar		0.05	0.05	0.05	0.05
Plant - Folding	12R-38	MFWD 225	0.049	1.00	Mar		0.04	0.04	0.09	0.04
Corn Seed RR2	thous					28.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					19.3063				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
Corn Consultant	acre			1.00	May	1.0000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2804				
Fert Appl (Liquid)	12R-38	MFWD 225	0.051	1.00	May		0.05	0.05	0.07	0.04
UAN (32%)	gal					29.6700				
App by Air (3 gal)	appl			1.00	Jun	1.0000				
Intrepid 2F	oz					4.0000				
Header - Corn	8R-38	265 hp	0.100	1.00	Sep		0.10	0.10	0.10	0.09
Grain Cart Corn	700 bu	MFWD 225	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 225	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.68	0.67	0.81	0.61

Note: Cost of production estimates are based on 2017 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.**

Table 4.D Estimated costs for field operations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Subsoiler	3 shank		2.13	0.82	2.62		0.26	5.83	4.60	10.43
Disk Harrow	24'		1.71	1.48	2.11		0.25	5.55	5.37	10.92
Soil Test	acre	3.33					0.16	3.49		3.49
Lime (Spread)	ton	30.64					1.46	32.10		32.10
Spin Spreader	5 ton		0.88	0.57	1.46		0.14	3.05	2.33	5.38
Phosphorus (46% P2O5)	cwt	30.56					1.45	32.01		32.01
Potash (60% K2O)	cwt	23.73					1.13	24.86		24.86
Bed/Disk (Hipper)Rd	8R-38		1.54	0.78	1.90		0.20	4.42	3.82	8.24
App by Air (5 gal)	appl	6.50					0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48					0.14	4.62		4.62
Clarity	pt	5.78					0.18	5.96		5.96
Select Max	pt	12.64					0.40	13.04		13.04
Row Cond Rigid	26'		1.25	0.62	1.54		0.09	3.50	3.44	6.94
Plant - Folding	12R-38		1.03	1.71	1.72		0.12	4.58	4.69	9.27
Corn Seed RR2	thous	90.72					2.51	93.23		93.23
Custom Apply Fert	acre	7.50					0.18	7.68		7.68
UAN + Sulfur (28%)	gal	25.29					0.60	25.89		25.89
Sprayer 600-750gal	60' 175hp		0.29	0.18	0.53		0.02	1.02	1.20	2.22
Atrazine 4L	pt	8.48					0.20	8.68		8.68
Halex GT	pt	28.08					0.67	28.75		28.75
Corn Consultant	acre	6.00					0.12	6.12		6.12
App by Air (3 gal)	appl	1.00					0.02	1.02		1.02
Bifenthrin	oz	1.00					0.02	1.02		1.02
Fert Appl (Liquid)	12R-38		1.08	0.99	1.56		0.07	3.70	2.88	6.58
UAN (32%)	gal	34.71					0.69	35.40		35.40
App by Air (3 gal)	appl	5.00					0.08	5.08		5.08
Intrepid 2F	oz	8.00					0.13	8.13		8.13
Header - Corn	8R-38		2.48	5.02	2.59		0.04	10.13	15.97	26.10
Grain Cart Corn	700 bu		0.53	0.42	0.65		0.01	1.61	1.49	3.10
Haul Corn	bu	39.10					0.15	39.25		39.25
Stalk Shredder Flex	20'		1.72	2.54	2.11		0.03	6.40	4.62	11.02
TOTALS		372.54	14.64	15.13	18.79	0.00	11.73	432.83	50.41	483.24

Note: Cost of production estimates are based on 2017 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.

Table 4.E Estimated monthly income and expense flows per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	5.00	0.00	0.00	0.00
FERTILIZERS	54.29	0.00	0.00	0.00	0.00	0.00	25.29	34.71	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	8.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	90.72	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	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	39.10
CUSTOM LIME	30.64	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	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	8.09	0.00	0.00	0.00	0.00	3.26	0.53	1.56	0.00	0.00	0.00	5.35
LEASE *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUEL	6.26	0.00	0.00	0.00	0.00	2.28	0.29	1.08	0.00	0.00	0.00	4.73
REPAIR & MAINTENANCE	3.65	0.00	0.00	0.00	0.00	2.33	0.18	0.99	0.00	0.00	0.00	7.98
INTEREST ON OP. CAP.	5.05	0.00	0.00	0.00	0.93	2.72	1.67	0.92	0.21	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	111.31	0.00	0.00	0.00	30.33	101.31	72.02	47.26	13.21	0.00	0.00	57.39
NET INCOME	-111.31	0.00	0.00	0.00	-30.33	-101.31	-72.02	-47.26	-13.21	0.00	0.00	581.81
NET INCOME TO DATE	-111.31	-111.31	-111.31	-111.31	-141.64	-242.95	-314.97	-362.23	-375.44	-375.44	-375.44	206.37

Note: Cost of production estimates are based on 2017 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.

* Lease costs are based on hourly usage costs.

Table 4.F Estimated returns for various price/yield combinations, per acre
 Corn, conventional tillage, RR seed, 12-row 38"
 170 bu yield goal, non-irrigated, Delta Area, Mississippi, 2018

PRODUCT	PERCENT										PRODUCT PRICE	YIELD	UNIT
	75	80	85	90	95	100	105	110	115	120			
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70		
	-----dollars-----												
50	85.00	bu	-173	-157	-141	-125	-109	-93	-77	-61	-45	-29	-13
			-223	-207	-191	-175	-159	-144	-128	-112	-96	-80	-64
60	102.00	bu	-129	-110	-91	-71	-52	-33	-14	4	23	43	62
			-179	-160	-141	-122	-103	-84	-64	-45	-26	-7	11
70	119.00	bu	-85	-63	-40	-18	4	26	48	71	93	115	138
			-135	-113	-91	-68	-46	-24	-1	20	43	65	87
80	136.00	bu	-41	-15	9	35	60	86	111	137	163	188	214
			-91	-66	-40	-15	10	35	61	87	112	138	163
90	153.00	bu	2	31	60	88	117	146	175	203	232	261	290
			-47	-19	9	38	67	95	124	153	182	211	239
100	170.00	bu	46	78	110	142	174	206	238	270	302	334	366
			-3	28	60	92	124	155	187	219	251	283	315
110	187.00	bu	90	125	160	196	231	266	301	336	371	406	442
			40	75	110	145	180	215	251	286	321	356	391
120	204.00	bu	134	172	211	249	288	326	364	403	441	479	518
			84	122	160	199	237	275	314	352	391	429	467
130	221.00	bu	178	220	261	303	344	386	427	469	510	552	594
			128	169	211	252	294	335	377	419	460	502	543
140	238.00	bu	222	267	312	356	401	446	491	535	580	625	670
			172	216	261	306	351	395	440	485	530	574	619
150	255.00	bu	266	314	362	410	458	506	554	602	650	698	746
			216	264	312	360	407	455	503	551	599	647	695

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 2017 input prices.

Table 5.A Estimated costs per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

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	_____
App by Air (3 gal)	appl	5.00	1.2000	6.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
UAN + Sulfur (28%)	gal	1.31	48.5856	63.65	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
INSECTICIDES					
Bifenthrin	oz	0.78	1.2804	1.00	_____
Intrepid 2F	oz	2.00	4.0000	8.00	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.24	28.0000	90.72	_____
CUSTOM FERTILIZE					
Custom Apply Fert	acre	7.50	1.0000	7.50	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4823	6.51	_____
Harvesters	hour	13.51	0.1277	1.73	_____
Self-Propelled	hour	13.51	0.0176	0.24	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0088	0.08	_____
UNALLOCATED LABOR					
	hour	13.48	0.5649	7.62	_____
DIESEL FUEL					
Tractors	gal	1.80	4.2208	7.60	_____
Harvesters	gal	1.80	1.7419	3.14	_____
Self-Propelled	gal	1.80	0.1586	0.29	_____
REPAIR & MAINTENANCE					
Implements	acre	8.51	1.0000	8.51	_____
Tractors	acre	2.31	1.0000	2.31	_____
Harvesters	acre	4.36	1.0000	4.36	_____
Self-Propelled	acre	0.18	1.0000	0.18	_____
INTEREST ON OP. CAP.	acre	11.50	1.0000	11.50	_____
TOTAL DIRECT EXPENSES				431.57	_____
FIXED EXPENSES					
Implements	acre	12.74	1.0000	12.74	_____
Tractors	acre	14.52	1.0000	14.52	_____
Harvesters	acre	17.22	1.0000	17.22	_____
Self-Propelled	acre	1.20	1.0000	1.20	_____
TOTAL FIXED EXPENSES				45.68	_____
TOTAL SPECIFIED EXPENSES				477.25	_____

Note: Cost of production estimates are based on 2017 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.

Table 5.B Summary of estimated costs and returns per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	12.50	1.0000	12.50	_____
FERTILIZERS	acre	117.94	1.0000	117.94	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
INSECTICIDES	acre	9.00	1.0000	9.00	_____
SEED/PLANTS	acre	90.72	1.0000	90.72	_____
CUSTOM FERTILIZE	acre	7.50	1.0000	7.50	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1530	1.39	_____
OPERATOR LABOR	hour	13.51	0.6277	8.48	_____
UNALLOCATED LABOR	hour	13.48	0.5649	7.62	_____
DIESEL FUEL	gal	1.80	6.1215	11.03	_____
REPAIR & MAINTENANCE	acre	15.36	1.0000	15.36	_____
INTEREST ON OP. CAP.	acre	11.50	1.0000	11.50	_____

TOTAL DIRECT EXPENSES				431.57	_____
RETURNS ABOVE DIRECT EXPENSES				207.63	_____
TOTAL FIXED EXPENSES				45.68	_____

TOTAL SPECIFIED EXPENSES				477.25	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				161.95	_____

Note: Cost of production estimates are based on 2017 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.

Table 5.C Estimated resource use for field operations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

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	0.6660				
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Oct		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)	cwt					1.6300				
Potash (60% K2O)	cwt					1.2500				
Disk Heavy	20'	MFWD 170	0.097	1.00	Oct		0.09	0.09	0.09	0.08
Bed/Disk w/roller	8R-30/40	MFWD 170	0.093	1.00	Oct		0.09	0.09	0.09	0.08
App by Air (5 gal)	appl			1.00	Feb	1.0000				
Glyphosate 3lbs a.e	oz					32.0000				
Clarity	pt					0.5000				
Select Max	pt					1.0000				
Plant - Rigid	12R-30	MFWD 170	0.062	1.00	Mar		0.06	0.06	0.12	0.05
Corn Seed RR2	thous					28.0000				
Custom Apply Fert	acre			1.00	Apr	1.0000				
UAN + Sulfur (28%)	gal					14.8018				
Sprayer 600-750gal	60' 175hp		0.017	1.00	Apr			0.01	0.02	0.01
Atrazine 4L	pt					4.0000				
Halex GT	pt					3.6000				
Fert Appl (Liquid)	12R-30	MFWD 170	0.078	1.00	May		0.07	0.07	0.11	0.07
UAN + Sulfur (28%)	gal					33.7838				
Corn Consultant	acre			1.00	May	1.0000				
App by Air (3 gal)	appl			0.20	May	0.2000				
Bifenthrin	oz					1.2804				
App by Air (3 gal)	appl			1.00	Jun	1.0000				
Intrepid 2F	oz					4.0000				
Header - Corn	8R-30	265 hp	0.127	1.00	Sep		0.12	0.12	0.12	0.11
Grain Cart Corn	500 bu	MFWD 170	0.025	1.00	Sep		0.02	0.02	0.02	0.02
Haul Corn	bu					170.0000				
Stalk Shredder Flex	20'	MFWD 170	0.082	1.00	Sep		0.08	0.08	0.08	0.07
TOTALS							0.62	0.61	0.78	0.56

Note: Cost of production estimates are based on 2017 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.

Table 5.D Estimated costs for field operations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

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						0.16	3.49	3.49
Lime (Spread)	ton	30.64						1.46	32.10	32.10
Spin Spreader	5 ton		0.66	0.49	1.46			0.12	2.73	1.86 4.59
Phosphorus (46% P2O5)	cwt	30.56						1.45	32.01	32.01
Potash (60% K2O)	cwt	23.73						1.13	24.86	24.86
Disk Heavy	20'		1.53	1.53	2.49			0.26	5.81	5.17 10.98
Bed/Disk w/roller	8R-30/40		1.48	1.07	2.41			0.24	5.20	4.47 9.67
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62	4.62
Clarity	pt	5.78						0.18	5.96	5.96
Select Max	pt	12.64						0.40	13.04	13.04
Plant - Rigid	12R-30		0.99	1.67	2.18			0.13	4.97	4.52 9.49
Corn Seed RR2	thous	90.72						2.51	93.23	93.23
Custom Apply Fert	acre	7.50						0.18	7.68	7.68
UAN + Sulfur (28%)	gal	19.39						0.46	19.85	19.85
Sprayer 600-750gal	60' 175hp		0.29	0.18	0.53			0.02	1.02	1.20 2.22
Atrazine 4L	pt	8.48						0.20	8.68	8.68
Halex GT	pt	28.08						0.67	28.75	28.75
Fert Appl (Liquid)	12R-30		1.24	1.43	2.38			0.10	5.15	3.55 8.70
UAN + Sulfur (28%)	gal	44.26						0.88	45.14	45.14
Corn Consultant	acre	6.00						0.12	6.12	6.12
App by Air (3 gal)	appl	1.00						0.02	1.02	1.02
Bifenthrin	oz	1.00						0.02	1.02	1.02
App by Air (3 gal)	appl	5.00						0.08	5.08	5.08
Intrepid 2F	oz	8.00						0.13	8.13	8.13
Header - Corn	8R-30		3.14	6.32	3.28			0.05	12.79	20.17 32.96
Grain Cart Corn	500 bu		0.40	0.28	0.65			0.01	1.34	1.05 2.39
Haul Corn	bu	39.10						0.15	39.25	39.25
Stalk Shredder Flex	20'		1.30	2.39	2.11			0.02	5.82	3.69 9.51
TOTALS		376.19	11.03	15.36	17.49	0.00	11.50	431.57	45.68	477.25

Note: Cost of production estimates are based on 2017 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.

Table 5.E Estimated monthly income and expense flows per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

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	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	1.00	5.00	0.00	0.00	0.00
FERTILIZERS	54.29	0.00	0.00	0.00	0.00	0.00	19.39	44.26	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	8.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	90.72	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	7.50	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	39.10
CUSTOM LIME	30.64	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	6.00	0.00	0.00	0.00	0.00
SOIL TEST	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	6.36	0.00	0.00	0.00	0.00	2.18	0.53	2.38	0.00	0.00	0.00	6.04
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	3.67	0.00	0.00	0.00	0.00	0.99	0.29	1.24	0.00	0.00	0.00	4.84
REPAIR & MAINTENANCE	3.09	0.00	0.00	0.00	0.00	1.67	0.18	1.43	0.00	0.00	0.00	8.99
INTEREST ON OP. CAP.	4.82	0.00	0.00	0.00	0.93	2.64	1.53	1.14	0.21	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	106.20	0.00	0.00	0.00	30.33	98.20	65.98	58.45	13.21	0.00	0.00	59.20
NET INCOME	-106.20	0.00	0.00	0.00	-30.33	-98.20	-65.98	-58.45	-13.21	0.00	0.00	580.00
NET INCOME TO DATE	-106.20	-106.20	-106.20	-106.20	-136.53	-234.73	-300.71	-359.16	-372.37	-372.37	-372.37	207.63

Note: Cost of production estimates are based on 2017 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.
 * Lease costs are based on hourly usage costs.

Table 5.F Estimated returns for various price/yield combinations, per acre
 Corn, stale seedbed, RR seed, 12-row 30",
 170 bu yield goal, Non-Delta, Mississippi, 2018

PRODUCT	PERCENT										PRODUCT PRICE	UNIT	
	75	80	85	90	95	100	105	110	115	120			
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51		4.70	
	-----dollars-----												
50	85.00	bu	-172	-156	-140	-124	-108	-92	-76	-60	-44	-28	-12
			-217	-201	-185	-169	-154	-138	-122	-106	-90	-74	-58
60	102.00	bu	-128	-109	-89	-70	-51	-32	-13	6	25	44	63
			-173	-154	-135	-116	-97	-78	-58	-39	-20	-1	17
70	119.00	bu	-84	-61	-39	-17	5	27	50	72	94	117	139
			-129	-107	-85	-62	-40	-18	4	26	49	71	93
80	136.00	bu	-40	-14	10	36	62	87	113	138	164	189	215
			-85	-60	-34	-9	16	41	67	93	118	144	169
90	153.00	bu	3	32	61	90	118	147	176	205	233	262	291
			-41	-13	15	44	73	101	130	159	188	217	245
100	170.00	bu	47	79	111	143	175	207	239	271	303	335	367
			2	34	66	98	129	161	193	225	257	289	321
110	187.00	bu	91	127	162	197	232	267	302	337	373	408	443
			46	81	116	151	186	221	257	292	327	362	397
120	204.00	bu	135	174	212	250	289	327	365	404	442	481	519
			90	128	166	205	243	281	320	358	396	435	473
130	221.00	bu	179	221	262	304	346	387	429	470	512	553	595
			134	175	217	258	300	341	383	425	466	508	549
140	238.00	bu	223	268	313	358	402	447	492	537	581	626	671
			178	222	267	312	357	401	446	491	536	580	625
150	255.00	bu	267	315	363	411	459	507	555	603	651	699	747
			222	270	318	366	413	461	509	557	605	653	701

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 2017 input prices.

Table 6.A Estimated costs per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

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	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.6300	30.56	_____
Potash (60% K2O)	cwt	18.98	1.2500	23.73	_____
Fert 10-34-0	gal	2.59	4.2919	11.12	_____
UAN (32%)	gal	1.17	45.2080	52.89	_____
HERBICIDES					
Glyphosate 3lbs a.e	oz	0.14	32.0000	4.48	_____
Clarity	pt	11.55	0.5000	5.78	_____
Select Max	pt	12.64	1.0000	12.64	_____
Atrazine 4L	pt	2.12	4.0000	8.48	_____
Halex GT	pt	7.80	3.6000	28.08	_____
SEED/PLANTS					
Corn Seed BtRR	thous	3.63	28.0000	101.64	_____
HAULING					
Haul Corn	bu	0.23	170.0000	39.10	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Corn Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.4165	5.63	_____
Harvesters	hour	13.51	0.1277	1.73	_____
HAND LABOR					
Implements	hour	9.06	0.2283	2.06	_____
UNALLOCATED LABOR	hour	13.49	0.4898	6.61	_____
DIESEL FUEL					
Tractors	gal	1.80	3.6449	6.57	_____
Harvesters	gal	1.80	1.7419	3.14	_____
REPAIR & MAINTENANCE					
Implements	acre	7.50	1.0000	7.50	_____
Tractors	acre	1.99	1.0000	1.99	_____
Harvesters	acre	4.36	1.0000	4.36	_____
INTEREST ON OP. CAP.	acre	10.17	1.0000	10.17	_____
TOTAL DIRECT EXPENSES				414.73	_____
FIXED EXPENSES					
Implements	acre	9.99	1.0000	9.99	_____
Tractors	acre	12.54	1.0000	12.54	_____
Harvesters	acre	17.22	1.0000	17.22	_____
TOTAL FIXED EXPENSES				39.75	_____
TOTAL SPECIFIED EXPENSES				454.48	_____

Note: Cost of production estimates are based on 2017 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.

Table 6.B Summary of estimated costs and returns per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Corn	bu	3.76	170.0000	639.20	_____

TOTAL INCOME				639.20	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	118.30	1.0000	118.30	_____
HERBICIDES	acre	59.46	1.0000	59.46	_____
SEED/PLANTS	acre	101.64	1.0000	101.64	_____
HAULING	acre	39.10	1.0000	39.10	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.2283	2.06	_____
OPERATOR LABOR	hour	13.51	0.5442	7.36	_____
UNALLOCATED LABOR	hour	13.49	0.4898	6.61	_____
DIESEL FUEL	gal	1.80	5.3869	9.71	_____
REPAIR & MAINTENANCE	acre	13.85	1.0000	13.85	_____
INTEREST ON OP. CAP.	acre	10.17	1.0000	10.17	_____

TOTAL DIRECT EXPENSES				414.73	_____
RETURNS ABOVE DIRECT EXPENSES				224.47	_____
TOTAL FIXED EXPENSES				39.75	_____

TOTAL SPECIFIED EXPENSES				454.48	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				184.72	_____

Note: Cost of production estimates are based on 2017 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.

Table 6.C Estimated resource use for field operations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

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	0.6660					
App by Air (5 gal)	appl			1.00	Feb	1.0000					
Glyphosate 3lbs a.e	oz					32.0000					
Clarity	pt					0.5000					
Select Max	pt					1.0000					
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Mar		0.04	0.04	0.08	0.03	
Phosphorus(46% P2O5)	cwt					1.6300					
Potash (60% K2O)	cwt					1.2500					
NT Plant&Pre-Rigid	8R-30	MFWD 170	0.105	1.00	Mar		0.10	0.10	0.21	0.09	
Corn Seed BtRR	thous					28.0000					
Fert 10-34-0	gal					4.2919					
Spray (Broadcast)	27'	MFWD 170	0.062	1.00	Apr		0.06	0.06	0.09	0.05	
Atrazine 4L	pt					4.0000					
Halex GT	pt					3.6000					
Fert Appl (Liquid)	8R-30	MFWD 170	0.098	1.00	Apr		0.09	0.09	0.14	0.08	
UAN (32%)	gal					45.2080					
Corn Consultant	acre			1.00	May	1.0000					
Header - Corn	8R-30	265 hp	0.127	1.00	Sep		0.12	0.12	0.12	0.11	
Grain Cart Corn	500 bu	MFWD 170	0.025	1.00	Sep		0.02	0.02	0.02	0.02	
Haul Corn	bu					170.0000					
Stalk Shredder Flex	20'	MFWD 170	0.082	1.00	Sep		0.08	0.08	0.08	0.07	
TOTALS								0.54	0.54	0.77	0.48

Note: Cost of production estimates are based on 2017 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.

Table 6.D Estimated costs for field operations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----						FIXED COST	TOTAL COST	
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER			
-----dollars-----										
Soil Test	acre	3.33						0.16	3.49	3.49
Lime (Spread)	ton	30.64						1.46	32.10	32.10
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62	4.62
Clarity	pt	5.78						0.18	5.96	5.96
Select Max	pt	12.64						0.40	13.04	13.04
Spin Spreader	5 ton		0.66	0.49	1.46			0.07	2.68	1.86
Phosphorus (46% P2O5)	cwt	30.56						0.85	31.41	31.41
Potash (60% K2O)	cwt	23.73						0.66	24.39	24.39
NT Plant&Pre-Rigid	8R-30		1.67	2.37	3.68			0.21	7.93	6.74
Corn Seed BtRR	thous	101.64						2.82	104.46	104.46
Fert 10-34-0	gal	11.12						0.31	11.43	11.43
Spray (Broadcast)	27'		0.99	0.46	1.89			0.08	3.42	2.08
Atrazine 4L	pt	8.48						0.20	8.68	8.68
Halex GT	pt	28.08						0.67	28.75	28.75
Fert Appl (Liquid)	8R-30		1.55	1.54	2.96			0.14	6.19	4.16
UAN (32%)	gal	52.89						1.26	54.15	54.15
Corn Consultant	acre	6.00						0.12	6.12	6.12
Header - Corn	8R-30		3.14	6.32	3.28			0.05	12.79	20.17
Grain Cart Corn	500 bu		0.40	0.28	0.65			0.01	1.34	1.05
Haul Corn	bu	39.10						0.15	39.25	39.25
Stalk Shredder Flex	20'		1.30	2.39	2.11			0.02	5.82	3.69
TOTALS		364.97	9.71	13.85	16.03	0.00	10.17	414.73	39.75	454.48

Note: Cost of production estimates are based on 2017 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.

Table 6.E Estimated monthly income and expense flows per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	639.20
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	65.41	52.89	0.00	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	22.90	0.00	36.56	0.00	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	101.64	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	39.10
CUSTOM LIME	30.64	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	6.00	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	0.00	0.00	0.00	0.00	0.00	5.14	4.85	0.00	0.00	0.00	0.00	6.04
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	2.33	2.54	0.00	0.00	0.00	0.00	4.84
REPAIR & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	2.86	2.00	0.00	0.00	0.00	0.00	8.99
INTEREST ON OP. CAP.	1.62	0.00	0.00	0.00	0.93	4.92	2.35	0.12	0.00	0.00	0.00	0.23
TOTAL DIRECT EXPENSES	35.59	0.00	0.00	0.00	30.33	182.30	101.19	6.12	0.00	0.00	0.00	59.20
NET INCOME	-35.59	0.00	0.00	0.00	-30.33	-182.30	-101.19	-6.12	0.00	0.00	0.00	580.00
NET INCOME TO DATE	-35.59	-35.59	-35.59	-35.59	-65.92	-248.22	-349.41	-355.53	-355.53	-355.53	-355.53	224.47

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.

* Lease costs are based on hourly usage costs.

Table 6.F Estimated returns for various price/yield combinations, per acre
 Corn, no-tillage, BtRR, 12-row 30", 170 bu yield goal
 Non-Delta Areas, Mississippi, 2018

PRODUCT	PERCENT										PRODUCT PRICE	PERCENT												
	75	80	85	90	95	100	105	110	115	120														
Corn	2.82	3.00	3.19	3.38	3.57	3.76	3.94	4.13	4.32	4.51	4.70													
PERCENT	YIELD UNIT												dollars											
50	85.00	bu	-155	-139	-123	-107	-91	-75	-59	-43	-27	-11	4											
			-195	-179	-163	-147	-131	-115	-99	-83	-67	-51	-35											
60	102.00	bu	-111	-92	-73	-53	-34	-15	3	22	42	61	80											
			-151	-131	-112	-93	-74	-55	-36	-16	2	21	40											
70	119.00	bu	-67	-45	-22	-0	22	44	66	89	111	133	156											
			-107	-84	-62	-40	-17	4	27	49	71	94	116											
80	136.00	bu	-23	2	27	53	78	104	130	155	181	206	232											
			-63	-37	-11	13	39	64	90	115	141	167	192											
90	153.00	bu	20	49	78	106	135	164	193	222	250	279	308											
			-19	9	38	67	95	124	153	182	211	239	268											
100	170.00	bu	64	96	128	160	192	224	256	288	320	352	384											
			24	56	88	120	152	184	216	248	280	312	344											
110	187.00	bu	108	143	178	214	249	284	319	354	389	425	460											
			68	104	139	174	209	244	279	315	350	385	420											
120	204.00	bu	152	191	229	267	306	344	382	421	459	497	536											
			112	151	189	228	266	304	343	381	419	458	496											
130	221.00	bu	196	238	279	321	362	404	446	487	529	570	612											
			156	198	240	281	323	364	406	447	489	530	572											
140	238.00	bu	240	285	330	374	419	464	509	553	598	643	688											
			200	245	290	335	379	424	469	514	558	603	648											
150	255.00	bu	284	332	380	428	476	524	572	620	668	716	764											
			244	292	340	388	436	484	532	580	628	676	724											

The top number in each cell is Returns Above Direct Expenses.
 The bottom number in each cell is Returns Above Total Specified Expenses.
 Only the product listed has been varied to calculate net returns.
 Note: Cost of production estimates are based on 2017 input prices.

Table 7.A Estimated costs per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

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	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.3000	24.38	_____
Potash (60% K2O)	cwt	18.98	1.0000	18.98	_____
UAN + Sulfur (28%)	gal	1.31	38.2883	50.16	_____
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	12.64	1.0000	12.64	_____
Lexar	pt	7.96	6.0000	47.76	_____
INSECTICIDES					
Sivanto Prime	oz	2.55	8.0000	20.40	_____
Karate Z	oz	2.74	1.5000	4.11	_____
Prevathon	oz	1.32	14.0000	18.48	_____
SEED/PLANTS					
Sorghum Concept+ Po	lb	3.92	4.5000	17.64	_____
ADJUVANTS					
Surfactant	pt	3.28	0.3000	0.98	_____
HAULING					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Sorghum Consultant	acre	6.00	1.0000	6.00	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.3120	4.22	_____
Harvesters	hour	13.51	0.1021	1.38	_____
Self-Propelled	hour	13.51	0.0661	0.90	_____
HAND LABOR					
Implements	hour	9.06	0.1442	1.31	_____
Self-Propelled	hour	9.06	0.0330	0.30	_____
UNALLOCATED LABOR					
	hour	13.51	0.4322	5.84	_____
DIESEL FUEL					
Tractors	gal	1.80	2.7303	4.91	_____
Harvesters	gal	1.80	1.3935	2.51	_____
Self-Propelled	gal	1.80	0.8505	1.55	_____
REPAIR & MAINTENANCE					
Implements	acre	4.74	1.0000	4.74	_____
Tractors	acre	1.49	1.0000	1.49	_____
Harvesters	acre	3.49	1.0000	3.49	_____
Self-Propelled	acre	0.90	1.0000	0.90	_____
INTEREST ON OP. CAP.	acre	7.54	1.0000	7.54	_____
TOTAL DIRECT EXPENSES				337.36	_____
FIXED EXPENSES					
Implements	acre	9.31	1.0000	9.31	_____
Tractors	acre	9.39	1.0000	9.39	_____
Harvesters	acre	13.77	1.0000	13.77	_____
Self-Propelled	acre	5.90	1.0000	5.90	_____
TOTAL FIXED EXPENSES				38.37	_____
TOTAL SPECIFIED EXPENSES				375.73	_____

Note: Cost of production estimates are based on 2017 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.

Table 7.B Summary of estimated costs and returns per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Grain Sorghum	bu	3.57	100.0000	357.00	_____

TOTAL INCOME				357.00	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	6.50	1.0000	6.50	_____
FERTILIZERS	acre	93.52	1.0000	93.52	_____
HERBICIDES	acre	69.68	1.0000	69.68	_____
INSECTICIDES	acre	42.99	1.0000	42.99	_____
SEED/PLANTS	acre	17.64	1.0000	17.64	_____
ADJUVANTS	acre	0.98	1.0000	0.98	_____
HAULING	acre	25.00	1.0000	25.00	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	6.00	1.0000	6.00	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1772	1.61	_____
OPERATOR LABOR	hour	13.51	0.4803	6.50	_____
UNALLOCATED LABOR	hour	13.51	0.4322	5.84	_____
DIESEL FUEL	gal	1.80	4.9745	8.97	_____
REPAIR & MAINTENANCE	acre	10.62	1.0000	10.62	_____
INTEREST ON OP. CAP.	acre	7.54	1.0000	7.54	_____

TOTAL DIRECT EXPENSES				337.36	_____
RETURNS ABOVE DIRECT EXPENSES				19.64	_____
TOTAL FIXED EXPENSES				38.37	_____

TOTAL SPECIFIED EXPENSES				375.73	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-18.73	_____

Note: Cost of production estimates are based on 2017 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.

Table 7.C Estimated resource use for field operations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

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	0.6660					
Disk Harrow	24'	MFWD 170	0.081	1.00	Nov		0.08	0.08	0.08	0.07	
App by Air (5 gal)	appl			1.00	Feb	1.0000					
Glyphosate 3lbs a.e	oz					32.0000					
2,4-D Amine 4	pt					2.0000					
Select Max	pt					1.0000					
Surfactant	pt					0.3000					
Spin Spreader	5 ton	MFWD 170	0.042	1.00	Apr		0.04	0.04	0.08	0.03	
Phosphorus(46% P2O5)	cwt					1.3000					
Potash (60% K2O)	cwt					1.0000					
Field Cultivate Fld	32'	MFWD 170	0.046	1.00	Apr		0.04	0.04	0.04	0.04	
Plant - Folding	12R-30	MFWD 170	0.062	1.00	Apr		0.06	0.06	0.12	0.05	
Sorghum Concept+ Po	lb					4.5000					
Sprayer 800gal	80' 250hp		0.013	1.00	Apr			0.01	0.01	0.01	
Lexar	pt					6.0000					
Sorghum Consultant	acre			1.00	May	1.0000					
Fert Appl (Liquid)	12R-30	MFWD 170	0.078	1.00	May		0.07	0.07	0.11	0.07	
UAN + Sulfur (28%)	gal					38.2883					
Sprayer 800gal	80' 250hp		0.013	1.00	Jun			0.01	0.01	0.01	
Sivanto Prime	oz					4.0000					
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01	
Karate Z	oz					1.5000					
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01	
Prevathon	oz					14.0000					
Sprayer 800gal	80' 250hp		0.013	1.00	Jul			0.01	0.01	0.01	
Sivanto Prime	oz					4.0000					
Header Wheat/Sorghum	25' Rigid	265 hp	0.102	1.00	Sep		0.10	0.10	0.10	0.09	
Haul Sorghum	bu					100.0000					
TOTALS								0.48	0.41	0.65	0.43

Note: Cost of production estimates are based on 2017 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.

Table 7.D Estimated costs for field operations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

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						0.16	3.49		3.49
Lime (Spread)	ton	30.64						1.46	32.10		32.10
Disk Harrow	24'		1.29	1.33	2.11			0.21	4.94	4.45	9.39
App by Air (5 gal)	appl	6.50						0.21	6.71		6.71
Glyphosate 3lbs a.e	oz	4.48						0.14	4.62		4.62
2,4-D Amine 4	pt	4.80						0.15	4.95		4.95
Select Max	pt	12.64						0.40	13.04		13.04
Surfactant	pt	0.98						0.03	1.01		1.01
Spin Spreader	5 ton		0.66	0.49	1.46			0.06	2.67	1.86	4.53
Phosphorus(46% P2O5)	cwt	24.38						0.58	24.96		24.96
Potash (60% K2O)	cwt	18.98						0.45	19.43		19.43
Field Cultivate Fld	32'		0.73	0.67	1.20			0.06	2.66	3.30	5.96
Plant - Folding	12R-30		0.99	1.79	2.18			0.12	5.08	4.75	9.83
Sorghum Concept+ Po	lb	17.64						0.42	18.06		18.06
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.02	0.91	1.18	2.09
Lexar	pt	47.76						1.13	48.89		48.89
Sorghum Consultant	acre	6.00						0.12	6.12		6.12
Fert Appl (Liquid)	12R-30		1.24	1.43	2.38			0.10	5.15	3.55	8.70
UAN + Sulfur (28%)	gal	50.16						0.99	51.15		51.15
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18	2.08
Sivanto Prime	oz	10.20						0.16	10.36		10.36
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18	2.08
Karate Z	oz	4.11						0.05	4.16		4.16
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18	2.08
Prevathon	oz	18.48						0.22	18.70		18.70
Sprayer 800gal	80' 250hp		0.31	0.18	0.40			0.01	0.90	1.18	2.08
Sivanto Prime	oz	10.20						0.12	10.32		10.32
Header Wheat/Sorghum	25' Rigid		2.51	4.01	2.62			0.04	9.18	14.56	23.74
Haul Sorghum	bu	25.00						0.10	25.10		25.10
TOTALS		296.28	8.97	10.62	13.95	0.00	7.54	337.36	38.37	375.73	

Note: Cost of production estimates are based on 2017 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.

Table 7.E Estimated monthly income and expense flows per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

ITEM	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	357.00
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	43.36	50.16	0.00	0.00	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	21.92	0.00	47.76	0.00	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	10.20	32.79	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	0.00	0.00	0.00	17.64	0.00	0.00	0.00	0.00	0.00
ADJUVANTS	0.00	0.00	0.00	0.00	0.98	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	25.00
CUSTOM LIME	30.64	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	6.00	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	0.00	2.11	0.00	0.00	0.00	0.00	5.24	2.38	0.40	1.20	0.00	2.62
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	1.29	0.00	0.00	0.00	0.00	2.69	1.24	0.31	0.93	0.00	2.51
REPAIR & MAINTENANCE	0.00	1.33	0.00	0.00	0.00	0.00	3.13	1.43	0.18	0.54	0.00	4.01
INTEREST ON OP. CAP.	1.62	0.21	0.00	0.00	0.93	0.00	2.84	1.21	0.17	0.42	0.00	0.14
TOTAL DIRECT EXPENSES	35.59	4.94	0.00	0.00	30.33	0.00	122.66	62.42	11.26	35.88	0.00	34.28
NET INCOME	-35.59	-4.94	0.00	0.00	-30.33	0.00	-122.66	-62.42	-11.26	-35.88	0.00	322.72
NET INCOME TO DATE	-35.59	-40.53	-40.53	-40.53	-70.86	-70.86	-193.52	-255.94	-267.20	-303.08	-303.08	19.64

Note: Cost of production estimates are based on 2017 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.

* Lease costs are based on hourly usage costs.

Table 7.F Estimated returns for various price/yield combinations, per acre
 Grain sorghum, 12-row 30", 100 bu yield goal
 All Areas, Mississippi, 2018

PRODUCT	---PERCENT---										PRODUCT PRICE	PERCENT	
	75	80	85	90	95	100	105	110	115	120			125
Grain Sorghum	2.67	2.85	3.03	3.21	3.39	3.57	3.74	3.92	4.10	4.28	4.46		
PERCENT	---dollars---												
YIELD	UNIT												
50	50.00	bu	-190	-182	-173	-164	-155	-146	-137	-128	-119	-110	-101
			-229	-220	-211	-202	-193	-184	-175	-166	-157	-148	-140
60	60.00	bu	-166	-155	-145	-134	-123	-113	-102	-91	-80	-70	-59
			-205	-194	-183	-172	-162	-151	-140	-130	-119	-108	-97
70	70.00	bu	-142	-129	-117	-104	-92	-79	-67	-54	-42	-29	-17
			-180	-168	-155	-143	-130	-118	-105	-93	-80	-68	-55
80	80.00	bu	-118	-103	-89	-75	-61	-46	-32	-18	-3	10	24
			-156	-142	-127	-113	-99	-85	-70	-56	-42	-27	-13
90	90.00	bu	-93	-77	-61	-45	-29	-13	2	18	34	50	66
			-132	-116	-100	-84	-67	-51	-35	-19	-3	12	28
100	100.00	bu	-69	-51	-33	-16	1	19	37	55	73	91	108
			-107	-90	-72	-54	-36	-18	-0	16	34	52	70
110	110.00	bu	-45	-25	-6	13	33	52	72	92	111	131	151
			-83	-64	-44	-24	-5	14	34	53	73	93	112
120	120.00	bu	-21	0	21	43	64	86	107	128	150	171	193
			-59	-38	-16	4	26	47	69	90	111	133	154
130	130.00	bu	3	26	49	72	96	119	142	165	188	212	235
			-35	-11	11	34	57	80	104	127	150	173	196
140	140.00	bu	27	52	77	102	127	152	177	202	227	252	277
			-10	14	39	64	89	114	139	164	189	213	238
150	150.00	bu	51	78	105	132	158	185	212	239	265	292	319
			13	40	66	93	120	147	173	200	227	254	281

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 2017 input prices.

Table 8.A Estimated costs per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2018

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	_____
App by Air (3 gal)	appl	5.00	1.0000	5.00	_____
FERTILIZERS					
Phosphorus (46% P2O5)	cwt	18.75	1.0000	18.75	_____
Potash (60% K2O)	cwt	18.98	0.7500	14.24	_____
Fert 41-0-0-4	cwt	13.50	3.0480	41.15	_____
FUNGICIDES					
CruiserMaxx	oz	4.25	4.5000	19.13	_____
Prosaro	oz	5.57	8.0000	44.56	_____
HERBICIDES					
Axiom	oz	1.92	10.0000	19.20	_____
Harmony Extra SG	oz	13.79	0.7500	10.34	_____
Axial XL	oz	1.17	16.4000	19.19	_____
INSECTICIDES					
Karate Z	oz	2.74	1.5000	4.11	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.29	90.0000	26.10	_____
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	3.0480	21.34	_____
HAULING					
Haul Wheat	bu	0.26	70.0000	18.20	_____
CUSTOM LIME					
Lime (Spread)	ton	46.00	0.6660	30.64	_____
CROP CONSULTANT					
Wheat Consultant	acre	5.50	1.0000	5.50	_____
SOIL TEST					
Soil Test	acre	10.00	0.3330	3.33	_____
OPERATOR LABOR					
Tractors	hour	13.51	0.2648	3.58	_____
Harvesters	hour	13.51	0.1021	1.38	_____
HAND LABOR					
Implements	hour	9.06	0.1363	1.23	_____
UNALLOCATED LABOR					
	hour	13.45	0.2936	3.95	_____
DIESEL FUEL					
Tractors	gal	1.80	2.3178	4.17	_____
Harvesters	gal	1.80	1.3935	2.51	_____
REPAIR & MAINTENANCE					
Implements	acre	3.52	1.0000	3.52	_____
Tractors	acre	1.26	1.0000	1.26	_____
Harvesters	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	8.48	1.0000	8.48	_____
TOTAL DIRECT EXPENSES				347.34	_____
FIXED EXPENSES					
Implements	acre	7.79	1.0000	7.79	_____
Tractors	acre	7.97	1.0000	7.97	_____
Harvesters	acre	13.77	1.0000	13.77	_____
TOTAL FIXED EXPENSES				29.53	_____
TOTAL SPECIFIED EXPENSES				376.87	_____

Note: Cost of production estimates are based on 2017 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.

Table 8.B Summary of estimated costs and returns per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2018

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Wheat	bu	4.71	70.0000	329.70	_____

TOTAL INCOME				329.70	_____
DIRECT EXPENSES					
CUSTOM SPRAY	acre	18.00	1.0000	18.00	_____
FERTILIZERS	acre	74.13	1.0000	74.13	_____
FUNGICIDES	acre	63.69	1.0000	63.69	_____
HERBICIDES	acre	48.73	1.0000	48.73	_____
INSECTICIDES	acre	4.11	1.0000	4.11	_____
SEED/PLANTS	acre	26.10	1.0000	26.10	_____
CUSTOM FERTILIZE	acre	21.34	1.0000	21.34	_____
HAULING	acre	18.20	1.0000	18.20	_____
CUSTOM LIME	acre	30.64	1.0000	30.64	_____
CROP CONSULTANT	acre	5.50	1.0000	5.50	_____
SOIL TEST	acre	3.33	1.0000	3.33	_____
HAND LABOR	hour	9.06	0.1363	1.23	_____
OPERATOR LABOR	hour	13.51	0.3670	4.96	_____
UNALLOCATED LABOR	hour	13.45	0.2936	3.95	_____
DIESEL FUEL	gal	1.80	3.7114	6.68	_____
REPAIR & MAINTENANCE	acre	8.27	1.0000	8.27	_____
INTEREST ON OP. CAP.	acre	8.48	1.0000	8.48	_____

TOTAL DIRECT EXPENSES				347.34	_____
RETURNS ABOVE DIRECT EXPENSES				-17.64	_____
TOTAL FIXED EXPENSES				29.53	_____

TOTAL SPECIFIED EXPENSES				376.87	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-47.17	_____

Note: Cost of production estimates are based on 2017 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.

Table 8.C Estimated resource use for field operations, per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2018

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	Sep	0.3330				
Lime (Spread)		ton			0.33	Sep	0.6660				
Disk Harrow		24'	MFWD 170	0.081	1.00	Sep		0.08	0.08	0.08	0.06
Spin Spreader		5 ton	MFWD 170	0.042	1.00	Sep		0.04	0.04	0.08	0.03
Phosphorus (46% P2O5)		cwt					1.0000				
Potash (60% K2O)		cwt					0.7500				
Field Cultivate Fld		32'	MFWD 170	0.046	1.00	Sep		0.04	0.04	0.04	0.03
Grain Drill		20'	MFWD 170	0.094	1.00	Oct		0.09	0.09	0.18	0.07
Wheat Seed Private		lb					90.0000				
CruiserMaxx		oz					4.5000				
Wheat Consultant		acre			1.00	Oct	1.0000				
App by Air (5 gal)		appl			1.00	Nov	1.0000				
Axiom		oz					10.0000				
App by Air (3 gal)		appl			1.00	Feb	1.0000				
Karate Z		oz					1.5000				
Harmony Extra SG		oz					0.7500				
Axial XL		oz					16.4000				
App Fert by Air		cwt			1.00	Feb	1.5240				
Fert 41-0-0-4		cwt					1.5240				
App Fert by Air		cwt			1.00	Mar	1.5240				
Fert 41-0-0-4		cwt					1.5240				
App by Air (5 gal)		appl			1.00	Apr	1.0000				
Prosaro		oz					8.0000				
Header Wheat/Sorghum		25' Rigid	265 hp	0.102	1.00	Jun		0.10	0.10	0.10	0.08
Haul Wheat		bu					70.0000				
TOTALS								0.36	0.36	0.50	0.29

Note: Cost of production estimates are based on 2017 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.

Table 8.D Estimated costs for field operations, per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2018

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						0.13	3.46	3.46
Lime (Spread)	ton	30.64						1.21	31.85	31.85
Disk Harrow	24'		1.29	1.33	1.99			0.18	4.79	4.45 9.24
Spin Spreader	5 ton		0.66	0.49	1.40			0.10	2.65	1.86 4.51
Phosphorus (46% P2O5)	cwt	18.75						0.74	19.49	19.49
Potash (60% K2O)	cwt	14.24						0.56	14.80	14.80
Field Cultivate Fld	32'		0.73	0.67	1.13			0.10	2.63	3.30 5.93
Grain Drill	20'		1.49	1.77	3.14			0.23	6.63	5.36 11.99
Wheat Seed Private	lb	26.10						0.93	27.03	27.03
CruiserMaxx	oz	19.13						0.68	19.81	19.81
Wheat Consultant	acre	5.50						0.20	5.70	5.70
App by Air (5 gal)	appl	6.50						0.21	6.71	6.71
Axiom	oz	19.20						0.61	19.81	19.81
App by Air (3 gal)	appl	5.00						0.10	5.10	5.10
Karate Z	oz	4.11						0.08	4.19	4.19
Harmony Extra SG	oz	10.34						0.20	10.54	10.54
Axial XL	oz	19.19						0.38	19.57	19.57
App Fert by Air	cwt	10.67						0.21	10.88	10.88
Fert 41-0-0-4	cwt	20.57						0.41	20.98	20.98
App Fert by Air	cwt	10.67						0.17	10.84	10.84
Fert 41-0-0-4	cwt	20.57						0.33	20.90	20.90
App by Air (5 gal)	appl	6.50						0.08	6.58	6.58
Prosaro	oz	44.56						0.53	45.09	45.09
Header Wheat/Sorghum	25' Rigid		2.51	4.01	2.48			0.04	9.04	14.56 23.60
Haul Wheat	bu	18.20						0.07	18.27	18.27
TOTALS		313.77	6.68	8.27	10.14	0.00	8.48	347.34	29.53	376.87

Note: Cost of production estimates are based on 2017 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.

Table 8.E Estimated monthly income and expense flows per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2018

ITEM	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
TOTAL INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	329.70
DIRECT EXPENSES												
CUSTOM SPRAY	0.00	0.00	0.00	0.00	6.50	0.00	0.00	5.00	0.00	6.50	0.00	0.00
FERTILIZERS	0.00	0.00	32.99	0.00	0.00	0.00	0.00	20.57	20.57	0.00	0.00	0.00
FUNGICIDES	0.00	0.00	0.00	19.13	0.00	0.00	0.00	0.00	0.00	44.56	0.00	0.00
HERBICIDES	0.00	0.00	0.00	0.00	19.20	0.00	0.00	29.53	0.00	0.00	0.00	0.00
INSECTICIDES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.11	0.00	0.00	0.00	0.00
SEED/PLANTS	0.00	0.00	0.00	26.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CUSTOM FERTILIZE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.67	10.67	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	18.20
CUSTOM LIME	0.00	0.00	30.64	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	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOIL TEST	0.00	0.00	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LABOR	0.00	0.00	4.52	3.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48
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	0.00	0.00	2.68	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.51
REPAIR & MAINTENANCE	0.00	0.00	2.49	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.01
INTEREST ON OP. CAP.	0.00	0.00	3.02	2.04	0.82	0.00	0.00	1.38	0.50	0.61	0.00	0.11
TOTAL DIRECT EXPENSES	0.00	0.00	79.67	59.17	26.52	0.00	0.00	71.26	31.74	51.67	0.00	27.31
NET INCOME	0.00	0.00	-79.67	-59.17	-26.52	0.00	0.00	-71.26	-31.74	-51.67	0.00	302.39
NET INCOME TO DATE	0.00	0.00	-79.67	-138.84	-165.36	-165.36	-165.36	-236.62	-268.36	-320.03	-320.03	-17.64

Note: Cost of production estimates are based on 2017 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.

* Lease costs are based on hourly usage costs.

Table 8.F Estimated returns for various price/yield combinations, per acre
Wheat followed by soybeans, 70 bu yield goal
All Areas, Mississippi, 2018

PRODUCT	PERCENT										PRODUCT PRICE	UNIT	
	75	80	85	90	95	100	105	110	115	120			
Wheat	3.53	3.76	4.00	4.23	4.47	4.71	4.94	5.18	5.41	5.65	5.88		
	-----dollars-----												
50	35.00	bu	-214	-206	-198	-189	-181	-173	-165	-156	-148	-140	-132
			-244	-235	-227	-219	-211	-202	-194	-186	-178	-169	-161
60	42.00	bu	-191	-181	-171	-161	-152	-142	-132	-122	-112	-102	-92
			-221	-211	-201	-191	-181	-171	-161	-151	-142	-132	-122
70	49.00	bu	-168	-157	-145	-134	-122	-111	-99	-87	-76	-64	-53
			-198	-186	-175	-163	-152	-140	-129	-117	-105	-94	-82
80	56.00	bu	-145	-132	-119	-106	-93	-79	-66	-53	-40	-27	-13
			-175	-162	-149	-135	-122	-109	-96	-83	-69	-56	-43
90	63.00	bu	-122	-108	-93	-78	-63	-48	-33	-19	-4	10	25
			-152	-137	-122	-107	-93	-78	-63	-48	-33	-18	-4
100	70.00	bu	-100	-83	-67	-50	-34	-17	-1	15	31	48	64
			-129	-113	-96	-80	-63	-47	-30	-14	2	18	35
110	77.00	bu	-77	-59	-40	-22	-4	13	31	49	67	86	104
			-106	-88	-70	-52	-34	-16	2	20	38	56	74
120	84.00	bu	-54	-34	-14	5	24	44	64	84	103	123	143
			-83	-64	-44	-24	-4	15	34	54	74	94	114
130	91.00	bu	-31	-9	11	32	54	75	97	118	140	161	182
			-60	-39	-18	3	24	46	67	89	110	131	153
140	98.00	bu	-8	14	37	60	83	106	130	153	176	199	222
			-37	-14	8	31	54	77	100	123	146	169	192
150	105.00	bu	14	39	63	88	113	138	162	187	212	236	261
			-15	9	34	59	83	108	133	158	182	207	232

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 2017 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, 2018

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	328,000	300	8	13.64	13.51	24.55	34.16	72.22	134.81	207.04
Combine (300-349 hp)	325 hp	355,000	300	8	16.73	13.51	30.11	36.97	80.60	145.91	226.51
Combine (350-399 hp)	355 hp	354,000	300	8	18.27	13.51	32.88	36.87	83.27	145.50	228.77
Combine (400-449 hp)	425 hp	413,000	300	8	21.87	13.51	39.37	43.02	95.90	169.75	265.65
Combine (450-499hp)	475 hp	427,000	300	8	24.44	13.51	44.00	44.47	101.99	175.50	277.50
Tractor (20-39hp)CB	MFWD 30	28,300	600	8	1.54	13.51	2.77	0.88	17.17	5.32	22.49
Tractor (20-39hp)RB	MFWD 30	20,000	600	8	1.54	13.51	2.77	0.62	16.91	3.76	20.67
Tractor (40-59hp)CB	2WD 50	32,300	600	8	2.57	13.51	4.63	1.00	19.15	6.07	25.22
Tractor (40-59hp)CB	MFWD 50	39,500	600	8	2.57	13.51	4.63	1.23	19.37	7.42	26.80
Tractor (40-59hp)RB	2WD 50	21,100	600	8	2.57	13.51	4.63	0.65	18.80	3.96	22.76
Tractor (40-59hp)RB	MFWD 50	24,800	600	8	2.57	13.51	4.63	0.77	18.91	4.66	23.58
Tractor (60-89hp)CB	2WD 75	49,300	600	8	3.86	13.51	6.94	1.54	21.99	9.27	31.27
Tractor (60-89hp)CB	MFWD 75	52,500	600	8	3.86	13.51	6.94	1.64	22.09	9.87	31.97
Tractor (60-89hp)RB	2WD 75	33,100	600	8	3.86	13.51	6.94	1.03	21.49	6.22	27.71
Tractor (60-89hp)RB	MFWD 75	37,800	600	8	3.86	13.51	6.94	1.18	21.63	7.10	28.74
Tractor (90-119hp)CB	2WD 105	66,300	600	8	5.40	13.51	9.72	2.07	25.31	12.46	37.77
Tractor (90-119hp)CB	MFWD 105	76,100	600	8	5.40	13.51	9.72	2.37	25.61	14.31	39.92
Tractor (90-119hp)RB	2WD 105	60,300	600	8	5.40	13.51	9.72	1.88	25.12	11.33	36.46
Tractor (90-119hp)RB	MFWD 105	67,800	600	8	5.40	13.51	9.72	2.11	25.35	12.75	38.10
Tractor (120-139hp)CB	2WD 130	103,000	600	8	6.69	13.51	12.04	3.21	28.77	19.36	48.14
Tractor (120-139hp)CB	MFWD 130	113,000	600	8	6.69	13.51	12.04	3.53	29.08	21.25	50.33
Tractor (140-159hp)CB	MFWD 150	131,000	600	8	7.72	13.51	13.89	4.09	31.50	24.63	56.13
Tractor (160-179hp)CB	MFWD 170	153,000	600	8	8.75	13.51	15.75	4.78	34.04	30.10	64.14
Tractor (180-199hp)CB	MFWD 190	173,000	600	8	9.77	13.51	17.60	5.40	36.51	34.04	70.56
Tractor (200-249hp)CB	MFWD 225	210,000	600	8	11.58	13.51	20.84	6.56	40.91	41.32	82.24
Tractor (250-349hp)CB	4WD 300	285,000	600	8	15.44	13.51	27.79	8.90	50.21	56.08	106.29
Tractor (250-349hp)CB	MFWD 300	272,000	600	8	15.44	13.51	27.79	8.50	49.80	53.52	103.32
Tractor (250-349hp)CB	Track 300	318,000	600	8	15.44	13.51	27.79	9.93	51.24	62.57	113.81
Tractor (350-449hp)	Track 400	341,000	600	8	20.58	13.51	37.06	10.65	61.22	67.10	128.32
Tractor (350-449hp)CB	4WD 400	331,000	600	8	20.58	13.51	37.06	10.34	60.91	65.13	126.04
Tractor (450-550hp)CB	4WD 500	367,000	600	8	25.73	13.51	46.32	11.46	71.30	72.21	143.52
Tractor (450-550hp)CB	Track 500	445,000	600	8	25.73	13.51	46.32	13.90	73.74	87.56	161.30
Utility Vehicle	800 CC	10,000	200	8	0.70	13.51	1.47	1.56	16.54	6.16	22.70
Utility Vehicle	900 CC	12,600	200	8	1.00	13.51	2.10	1.96	17.57	7.76	25.34
Utility Vehicle-mule	600 CC	8,340	200	8	0.50	13.51	1.05	1.30	15.86	5.14	21.00

Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

CB = Cab, RB = Roll Bar

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, 2018

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	5.97	10.79	22.58	42.59	65.17
Cotton Picker	4R-38(350)	351,000	200	8	18.01	0.257	5.81	8.35	14.13	28.31	55.78	84.09
Cotton Picker	4R2x1(350)	357,000	200	8	18.01	0.172	3.88	5.58	9.61	19.08	37.92	57.01
Cotton Picker	6R-30(355)	465,000	200	8	18.27	0.218	4.92	7.17	15.85	27.96	62.56	90.53
Cotton Picker	6R-38(355)	465,000	200	8	18.27	0.172	3.88	5.66	12.51	22.07	49.39	71.47
Cotton Picker/Modu	4R-38(365)	536,000	200	8	20.58	0.257	5.81	9.55	21.58	36.96	85.18	122.14
Cotton Picker/Modu	6R-30(500)	764,000	200	8	25.73	0.218	4.92	10.11	26.05	41.08	102.80	143.89
Cotton Picker/Module	6R-38(500)	765,000	200	8	25.73	0.172	3.88	7.98	20.59	32.46	81.26	113.73
Dry Applicator SP	70'300cuft	306,000	350	8	16.98	0.015	0.27	0.46	0.24	0.98	1.62	2.61
Sprayer 600-750gal	60' 175hp	193,000	350	8	9.00	0.017	0.31	0.28	0.18	0.78	1.19	1.98
Sprayer 600-825gal	80' 175hp	202,000	350	8	11.81	0.013	0.23	0.28	0.14	0.66	0.94	1.60
Sprayer 600-825gal	90' 250hp	279,000	350	8	12.73	0.011	0.21	0.26	0.17	0.65	1.15	1.81
Sprayer 800gal	100' 250hp	280,000	350	8	14.15	0.010	0.19	0.26	0.15	0.61	1.04	1.66
Sprayer 800gal	80' 250hp	254,000	350	8	12.86	0.013	0.23	0.30	0.17	0.72	1.18	1.90
Sprayer 1000-1400gal	90' 275hp	299,000	350	8	14.15	0.010	0.19	0.26	0.16	0.62	1.11	1.74
Sprayer 1000gal	100' 300hp	310,000	350	8	15.44	0.010	0.19	0.29	0.17	0.66	1.15	1.81
Sprayer 1200+gal	120' 300hp	334,000	350	8	15.44	0.008	0.15	0.24	0.15	0.56	1.03	1.59
xxCotton Picker/Modu	6R-38(365)	536,000	200	8	20.58	0.172	3.88	6.38	14.43	24.70	56.94	81.64

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, 2018 (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	12R-30	MFWD 225	36,200	150	10	0.068	0.92	1.43	0.66	0.45	3.47	1.75	2.84	8.07
Cultivate	12R-38	MFWD 225	37,500	150	10	0.054	0.73	1.13	0.54	0.35	2.76	1.43	2.24	6.44
Cultivate	16R-30	MFWD 225	47,800	150	10	0.051	0.69	1.07	0.65	0.33	2.76	1.73	2.13	6.63
Cultivate & Post	4R-30	2WD 105	17,500	150	10	0.220	3.96	2.14	1.02	0.41	7.55	2.71	2.49	12.75
Cultivate & Post	4R-38	2WD 105	17,600	150	10	0.173	3.12	1.68	0.81	0.32	5.94	2.14	1.96	10.06
Cultivate & Post	6R-30	MFWD 150	21,700	150	10	0.146	2.64	2.03	0.84	0.60	6.13	2.24	3.61	11.98
Cultivate & Post	6R-38	MFWD 150	22,600	150	10	0.115	2.08	1.60	0.69	0.47	4.86	1.84	2.85	9.56
Cultivate & Post	8R-30	MFWD 190	26,000	150	10	0.110	1.98	1.93	0.76	0.59	5.27	2.01	3.74	11.03
Cultivate & Post	8R-38	MFWD 190	27,000	150	10	0.086	1.56	1.53	0.62	0.47	4.19	1.65	2.96	8.80
Cultivate & Post	8R-38 2x1	MFWD 190	44,500	150	10	0.057	1.04	1.01	0.68	0.31	3.06	1.81	1.97	6.84
Cultivate & Post	10R-30	MFWD 225	32,000	150	10	0.088	1.58	1.83	0.75	0.57	4.75	1.98	3.63	10.37
Cultivate & Post	12R-30	MFWD 225	41,500	150	10	0.073	1.32	1.52	0.81	0.48	4.14	2.14	3.03	9.31
Cultivate & Post	12R-38	MFWD 225	44,500	150	10	0.057	1.04	1.20	0.68	0.37	3.31	1.81	2.39	7.52
Cultivate & Post	16R-30	MFWD 225	54,900	150	10	0.055	0.99	1.14	0.80	0.36	3.30	2.12	2.27	7.70
Disk & Incorporate	14'	2WD 130	30,100	200	10	0.149	2.69	1.80	1.35	0.48	6.33	2.37	2.89	11.61
Disk & Incorporate	20'	MFWD 190	44,500	180	10	0.092	1.24	1.62	1.37	0.49	4.74	2.41	3.14	10.30
Disk & Incorporate	24'	MFWD 190	46,900	200	10	0.087	1.57	1.53	1.22	0.47	4.81	2.16	2.97	9.94
Disk & Incorporate	28'	MFWD 225	55,500	200	10	0.074	1.34	1.55	1.24	0.49	4.64	2.19	3.09	9.93
Disk & Incorporate	32'	MFWD 225	61,000	200	10	0.065	1.18	1.36	1.19	0.42	4.17	2.11	2.70	8.99
Disk Harrow	14'	2WD 130	24,800	180	10	0.140	1.89	1.68	0.96	0.45	5.00	2.04	2.71	9.76
Disk Harrow	20'	MFWD 190	39,200	180	10	0.098	1.32	1.72	1.06	0.53	4.65	2.25	3.34	10.25
Disk Harrow	24'	MFWD 190	41,500	180	10	0.081	1.10	1.44	0.94	0.44	3.93	1.99	2.78	8.71
Disk Harrow	28'	MFWD 225	50,100	180	10	0.070	0.94	1.46	0.97	0.46	3.84	2.06	2.89	8.80
Disk Harrow	32'	MFWD 225	55,700	180	10	0.061	0.82	1.27	0.94	0.40	3.46	2.00	2.53	8.00
Disk Harrow	42'	MFWD 225	96,300	180	10	0.046	0.63	0.97	1.25	0.30	3.16	2.64	1.93	7.74
Disk Harrow 40-100hp	14'	2WD 75	14,900	180	10	0.140	1.89	0.97	0.58	0.14	3.59	1.22	0.87	5.69
Disk Heavy	14'	MFWD 150	24,800	180	10	0.145	1.97	2.02	1.00	0.59	5.60	2.12	3.59	11.32
Disk Heavy	20'	MFWD 170	39,200	180	10	0.097	1.31	1.53	1.05	0.46	4.37	2.23	2.92	9.54
Disk Heavy	28'	MFWD 190	50,100	180	10	0.075	1.02	1.33	1.05	0.40	3.81	2.22	2.57	8.61
Disk Ripper	15'	MFWD 225	45,200	180	10	0.136	1.84	2.83	1.71	0.89	7.28	3.61	5.62	16.52
Ditcher		2WD 130	5,700	200	10	0.020	0.27	0.24	0.04	0.06	0.62	0.06	0.38	1.06
Ditcher (1m/160a)		2WD 130	5,700	200	10	0.009	0.12	0.11	0.02	0.03	0.29	0.02	0.18	0.50
Fert Appl (Liquid)	4R-38	MFWD 150	12,900	150	8	0.154	2.79	2.14	1.33	0.63	6.90	1.50	3.81	12.21
Fert Appl (Liquid)	6R-30	MFWD 170	16,300	150	8	0.130	2.36	2.06	1.42	0.62	6.47	1.60	3.94	12.02
Fert Appl (Liquid)	6R-38	MFWD 170	15,600	150	8	0.103	1.86	1.62	1.07	0.49	5.06	1.21	3.11	9.38
Fert Appl (Liquid)	8R-30	MFWD 190	16,300	150	8	0.098	1.77	1.72	1.06	0.53	5.09	1.20	3.34	9.64
Fert Appl (Liquid)	8R-38	MFWD 190	18,400	150	8	0.077	1.40	1.36	0.95	0.41	4.13	1.07	2.64	7.85
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	19,700	150	8	0.051	0.93	0.90	0.67	0.27	2.80	0.76	1.75	5.32
Fert Appl (Liquid)	12R-30	MFWD 225	20,000	150	8	0.078	1.41	1.63	1.04	0.51	4.61	1.18	3.24	9.04
Fert Appl (Liquid)	12R-38	MFWD 225	19,000	150	8	0.051	0.93	1.07	0.65	0.33	3.00	0.73	2.13	5.87
Field Cult & Inc	42'	MFWD 225	59,700	100	10	0.037	0.68	0.78	0.56	0.24	2.28	2.38	1.56	6.22
Field Cult & Inc	50'	MFWD 225	72,000	100	10	0.031	0.57	0.66	0.57	0.20	2.01	2.41	1.31	5.73
Field Cult & Inc Fld	24'	MFWD 170	34,500	100	10	0.066	1.19	1.04	0.57	0.31	3.12	2.40	1.99	7.52
Field Cult & Inc Fld	32'	MFWD 190	43,800	100	10	0.049	0.89	0.87	0.54	0.26	2.57	2.29	1.68	6.56
Field Cult & Inc Rdg	12'	2WD 150	15,800	100	10	0.132	2.38	1.83	0.52	0.44	5.19	2.20	2.68	10.08
Field Cultivate Fld	24'	MFWD 170	29,100	100	10	0.062	0.84	0.98	0.45	0.29	2.57	1.91	1.87	6.35
Field Cultivate Fld	32'	MFWD 190	38,500	100	10	0.046	0.63	0.82	0.44	0.25	2.15	1.89	1.58	5.63
Field Cultivate Fld	42'	MFWD 225	52,600	100	10	0.035	0.48	0.74	0.46	0.23	1.92	1.97	1.46	5.36
Field Cultivate Fld	50'	MFWD 225	62,100	100	10	0.029	0.40	0.62	0.46	0.19	1.68	1.95	1.23	4.87
Field Cultivate Rdg	12'	2WD 150	10,400	100	10	0.124	1.68	1.72	0.32	0.41	4.15	1.36	2.52	8.04
Grain Cart Corn	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.08	0.28	0.86	2.23
Grain Cart Corn	700 bu	MFWD 190	36,700	200	12	0.025	0.34	0.44	0.25	0.13	1.17	0.43	0.86	2.47
Grain Cart Corn	1000 bu	MFWD 225	45,700	200	12	0.025	0.34	0.52	0.31	0.16	1.34	0.54	1.04	2.93
Grain Cart Rice	500 bu	MFWD 190	24,000	200	12	0.062	0.84	1.10	0.40	0.33	2.68	0.70	2.12	5.52
Grain Cart Rice	700 bu	MFWD 190	36,700	200	12	0.055	0.74	0.96	0.54	0.29	2.55	0.94	1.87	5.37
Grain Cart Rice	1000 bu	MFWD 190	45,700	200	12	0.045	0.61	0.80	0.56	0.24	2.24	0.98	1.56	4.78
Grain Cart Soybean	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.09	0.28	0.86	2.25
Grain Cart Soybean	700 bu	MFWD 190	36,700	200	12	0.021	0.28	0.37	0.21	0.11	0.98	0.36	0.72	2.07
Grain Cart Soybean	1000 bu	MFWD 190	45,700	200	12	0.021	0.28	0.37	0.26	0.11	1.03	0.45	0.72	2.21
Grain Cart Wht/Sor	500 bu	MFWD 190	24,000	200	12	0.025	0.34	0.44	0.16	0.13	1.09	0.28	0.86	2.25
Grain Cart Wht/Sor	700 bu	MFWD 190	36,700	200	12	0.021	0.28	0.37	0.21	0.11	0.98	0.36	0.72	2.07
Grain Cart Wht/Sor	1000 bu	MFWD 190	45,700	200	12	0.021	0.28	0.37	0.26	0.11	1.03	0.45	0.72	2.21
Grain Drill	10'	2WD 130	26,700	150	8	0.188	4.25	2.27	1.88	0.60	9.02	3.61	3.65	16.28
Grain Drill	12'	2WD 130	25,200	150	8	0.157	3.54	1.89	1.48	0.50	7.43	2.84	3.04	13.31
Grain Drill	15'	MFWD 150	31,800	150	8	0.125	2.83	1.74	1.49	0.51	6.59	2.86	3.09	12.56
Grain Drill	20'	MFWD 170	37,300	150	8	0.094	2.12	1.48	1.31	0.45	5.38	2.52	2.83	10.74
Grain Drill	24'	MFWD 190	63,000	150	8	0.078	1.77	1.38	1.85	0.42	5.43	3.55	2.67	11.66
Grain Drill	30'	MFWD 225	59,500	150	8	0.062	1.41	1.31	1.40	0.41	4.54	2.68	2.59	9.82
Grain Drill	35'	MFWD 225	90,600	150	8	0.053	1.21	1.12	1.83	0.35	4.52	3.50	2.22	10.25
Grain Drill & Pre	10'	2WD 130	32,000	150	8	0.203	4.58	2.44	2.43	0.65	10.12	4.66	3.93	18.71
Grain Drill & Pre	12'	2WD 130	30,600	150	8	0.169	3.81	2.03	1.94	0.54	8.34	3.71	3.27	15.33
Grain Drill & Pre	15'	MFWD 150	37,200	150	8	0.135	3.05	1.88	1.88	0.55	7.37	3.61	3.33	14.32
Grain Drill & Pre	20'	MFWD 170	42,700	150	8	0.101	2.29	1.59	1.62	0.48	6.00	3.11	3.05	12.16

(continued)

Appendix Table 3. Towed equipment: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2018 (continued)

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total	--Fixed--	Total
			dollars	hours	years	hr/ac			Imp. P.U.	\$/acre	Imp. P.U.	Cost
Spray (Bcast/HB)	40' Fold	MFWD 170	17,500	200	8	0.042	0.76	0.66	0.34 0.20	1.97	0.41 1.27	3.67
Spray (Broadcast)	27'	MFWD 170	5,350	200	8	0.062	1.13	0.98	0.15 0.29	2.57	0.18 1.88	4.65
Spray (Broadcast)	40'	MFWD 170	7,050	200	8	0.042	0.76	0.66	0.13 0.20	1.77	0.16 1.27	3.21
Spray (Broadcast)	50'	MFWD 170	11,200	200	8	0.033	0.61	0.53	0.17 0.16	1.48	0.21 1.01	2.71
Spray (Spot)	53'	MFWD 170	9,940	200	8	0.031	0.57	0.50	0.14 0.15	1.38	0.17 0.96	2.52
Spray (Spot)	60'	MFWD 225	17,800	200	8	0.028	0.50	0.58	0.23 0.18	1.51	0.28 1.16	2.96
Stalk Shredder	14'	MFWD 150	12,100	200	10	0.117	1.59	1.63	1.24 0.48	4.96	0.75 2.90	8.61
Stalk Shredder Flex	20'	MFWD 150	27,700	200	10	0.082	1.11	1.14	1.99 0.33	4.59	1.20 2.03	7.83
Stalk Shredder-Flail	12'	MFWD 150	21,800	200	10	0.137	1.85	1.91	2.62 0.56	6.95	1.58 3.38	11.92
Stalk Shredder-Flail	15'	MFWD 150	22,100	200	10	0.110	1.48	1.52	2.12 0.45	5.59	1.28 2.70	9.58
Stalk Shredder-Flail	18'	MFWD 150	27,100	200	10	0.091	1.23	1.27	2.17 0.37	5.06	1.31 2.25	8.63
Stalk Shredder-Flail	20'	MFWD 150	27,500	200	10	0.082	1.11	1.14	1.98 0.33	4.58	1.19 2.03	7.81
Stalk Shredder-Flail	25'	MFWD 150	36,700	200	10	0.066	0.89	0.91	2.11 0.27	4.19	1.27 1.62	7.10
Strip Till	8R-38	MFWD 225	37,700	150	10	0.061	0.83	1.28	1.00 0.40	3.52	1.63 2.54	7.71
Strip Till	12R-30	MFWD 225	59,700	150	10	0.061	0.83	1.28	1.59 0.40	4.11	2.59 2.54	9.25
Strip Till	12R-40	MFWD 225	64,800	150	10	0.046	0.62	0.96	1.29 0.30	3.18	2.10 1.91	7.20
Subsoiler	3 shank	MFWD 190	4,550	100	15	0.204	2.76	3.59	0.30 1.10	7.77	0.76 6.95	15.49
Subsoiler	4 shank	MFWD 225	8,900	100	15	0.153	2.07	3.20	0.45 1.00	6.74	1.12 6.34	14.21
Subsoiler	5 shank	MFWD 225	12,100	100	15	0.122	1.65	2.55	0.49 0.80	5.50	1.22 5.05	11.77
Subsoiler low-till	4 shank	MFWD 225	10,800	100	15	0.153	2.07	3.20	0.55 1.00	6.83	1.36 6.34	14.55
Subsoiler low-till	6 shank	MFWD 225	17,100	100	15	0.102	1.38	2.12	0.58 0.67	4.76	1.44 4.22	10.42
Subsoiler low-till	8 shank	MFWD 225	17,300	100	15	0.076	1.03	1.59	0.44 0.50	3.57	1.09 3.16	7.82

Notes:

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

Total Direct: Does not include interest on operating capital.

HB = Hooded Boom, HD = Hooded Direct

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2018

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS					
Agri-Dex	pt	2.38	Captan 50 WP	lb	4.93
Class Act NG	pt	2.38	Cotton Seed Trt.	acre	20.00
Crop Oil Conc.(Pet.)	pt	2.74	CruiserMaxx	oz	4.25
Crop Oil Conc.(Veg.)	pt	2.61	Dithane F-45	qt	7.81
Dyne-A-Pak	pt	4.73	Enable 2F	oz	1.97
Herbimax	pt	1.88	Headline EC	oz	2.63
Induce	pt	3.31	Manzate 75 DF	lb	4.86
MSO	pt	2.61	Moncut 70 DF	lb	32.81
Penetrator Plus	pt	3.50	Propimax EC	pt	12.64
Prime Oil	pt	2.35	Prosaro	oz	5.57
Surfactant	pt	3.28	Provost	oz	2.43
CLEANING					
Cleaning Peanuts	ton	18.00	Quadris	oz	2.14
CROP CONSULTANT					
Corn Consultant	acre	6.00	Quadris Top	oz	2.55
Cotton Consultant	acre	8.00	Quadris Top SBX	oz	2.75
Peanut Consultant	acre	9.25	Quilt	pt	18.55
Rice Consultant	acre	8.00	Quilt XCEL	pt	25.43
Sorghum Consultant	acre	6.00	Ridomil Gold	oz	6.42
Soybeans Consultant	acre	6.50	Rovral 4F	pt	14.90
Wheat Consultant	acre	5.50	Stratego	pt	17.50
CUSTOM FERTILIZE					
App Fert by Air	cwt	7.00	Stratego YLD	oz	4.28
App Fert by Air(Mi)	appl	7.00	Tilt 3.6 EC	oz	0.75
Custom Apply Fert	acre	7.50	Tilt/ Bravo SE	oz	0.41
CUSTOM LIME					
Lime (Spread)	ton	46.00	Uniform	oz	4.63
CUSTOM PLANT					
Custom Plant	acre	7.50	GINNING		
Custom Plant Air	cwt	7.00	Gin & Haul	lb	0.11
CUSTOM SPRAY					
App by Air (3 gal)	appl	5.00	GROWTH REGULATORS		
App by Air (5 gal)	appl	6.50	Mepex	oz	0.08
App by Air (10 gal)	appl	9.00	Mepichlor 4.2%	oz	0.07
Custom Spray Ground	acre	7.00	Mepiquat	oz	0.07
DRYING					
Dry Corn	bu	0.19	Pentia	pt	6.46
Dry Grain Sorghum	cwt	0.25	Stance	oz	1.25
Dry Peanuts	ton	24.00	HARVEST AIDS		
Dry Rice	bu	0.40	Adios	oz	1.29
ERADICATION FEE					
Eradication	acre	1.00	Aim 2EC	oz	5.65
FERTILIZERS					
Agrotain Ultra	pt	9.00	Def/Folex	pt	10.54
Amm Sulfate (21% N)	cwt	13.43	Defol 5	gal	5.39
Boron Plus	pt	3.69	Ethephon 6E	pt	2.88
DAP	cwt	21.52	Finish 6	pt	9.61
Fert 10-34-0	cwt	22.25	Folex 6EC	pt	10.54
Fert 10-34-0	gal	2.59	Freefall SC	oz	1.50
Fert 11-37-0	cwt	23.05	Ginstar EC	pt	26.44
Fert 33-0-0-12S	cwt	18.00	Gramoxone SL	oz	0.15
Fert 41-0-0-4	cwt	13.50	Sharpen	oz	6.45
Lime	ton	46.00	Sodium Chlorate 5L	gal	5.39
NBPT	pt	9.00	SuperBoll	oz	0.19
Phosphorus(46% P2O5)	cwt	18.75	Thidiazuron 4lb	oz	1.50
Potash (60% K2O)	cwt	18.98	Tribufos 6lb	pt	10.54
Sulfur Plus	pt	2.62	HAULING		
UAN (32% N)	cwt	10.50	Haul Corn	bu	0.23
UAN (32%)	gal	1.17	Haul Peanuts	ton	14.50
UAN + Sulfur (28%)	cwt	11.75	Haul Rice	bu	0.35
UAN + Sulfur (28%)	gal	1.31	Haul Sorghum	bu	0.25
Urea, Solid (46% N)	cwt	14.19	Haul Soybeans	bu	0.27
Zinc Plus	pt	2.99	Haul Wheat	bu	0.26
FUNGICIDES					
Aframe	oz	1.96	HERBICIDES		
Alfa Guard	lb	1.48	2,4-D Amine 4	pt	2.40
Allegiance Flowable	pt	48.89	AAtrex 4L	pt	2.12
Apron Maxx RTA	oz	0.84	AAtrex NINE-O	lb	3.96
Artisan	oz	1.00	Accent Q	oz	21.51
Bravo Weather Stick	pt	6.56	Aim	oz	5.65
			Assure II	oz	0.74
			Atrazine 4L	pt	2.12
			Axial XL	oz	1.17
			Axiom	oz	1.92
			Banvel	pt	13.43
			Basagran	pt	12.31
			Beyond	oz	4.48
			Bicep II Magnum	qt	11.01
			Bicep Lite Magnum	pt	7.27

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2018(continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Bolero	pt	7.73	Regiment	oz	44.90
Boundary	pt	11.20	Remedy Ultra	pt	9.60
Butyrac 175 (2,4-D	pt	3.29	RiceBeaux	pt	5.86
Butyrac 200 (2,4-DB)	pt	4.34	Riceshot	pt	3.86
Cadre	oz	3.54	Ricestar HT	pt	24.35
Canopy	oz	2.74	Roundup Power Max	oz	0.17
Caparol	pt	4.60	Roundup PowerMax	pt	2.72
Capreno	oz	7.13	Roundup WeatherMax	oz	0.26
Clarity	pt	11.55	Roundup WeatherMax	pt	4.46
Classic	oz	17.18	Scepter 70 DG	oz	4.48
Clearpath	lb	61.26	Select Max	pt	12.64
Cobra	oz	1.72	Sequence	pt	5.95
Command 3ME	pt	19.93	Sharpen	oz	6.45
Corvus	oz	7.29	Simazine	pt	2.54
Cotoran	pt	6.42	Stalwart	pt	4.52
Cotton Pro	pt	3.52	Stam 80 EDF	lb	9.61
Credit Extra	pt	2.17	Stam M4	qt	7.80
Dicamba	pt	12.00	Staple LX	oz	7.63
Direx	pt	3.99	Steadfast	oz	12.26
Diuron	pt	3.90	Storm	pt	11.41
Diuron 80 DF	lb	5.09	Strada Pro	oz	7.27
Diuron 80%	lb	5.09	Strongarm	oz	56.42
Dual II Magnum	pt	14.83	Superwham	qt	9.18
Dual Magnum	pt	13.80	Surpass EC	qt	26.36
Duet	pt	5.35	Synchrony XP	oz	12.71
Envoke	oz	102.89	Touchdown Total	qt	5.16
Expert	pt	4.39	Treflan	pt	3.52
Facet L	pt	15.25	Tricor DF	lb	15.82
Fierce	oz	7.54	Trifluralin	pt	3.52
Finesse	oz	16.06	Ultra Blazer	pt	10.31
Flexstar	pt	8.41	Valor SX	oz	4.57
Fusilade DX	oz	1.00	Valor XLT	oz	5.00
Glyphosate 3lbs a.e	pt	2.25	Zidua	oz	9.05
Glyphosate 3lbs a.e	oz	0.14	INOCULANT		
Glystar Plus	pt	2.17	Optimize	oz	2.14
Goal 2XL	pt	9.89	Optimize LIFT	oz	0.59
Gramoxone SL 2.0	oz	0.15	Vault	oz	1.73
Grasp Xtra	oz	1.53	INSECTICIDES		
Halex GT	pt	7.80	Abamectin .15EC	oz	0.96
Halomax	oz	21.44	Acephate 90%	lb	7.43
Harmony Extra SG	oz	13.79	Acephate 90SP	lb	7.43
Harness XTRA	pt	9.45	Acramite-4SC	oz	1.71
Impact	oz	24.90	Admire Pro	oz	1.70
Leadoff	oz	5.82	Asana .66 XL	oz	0.58
Lexar	pt	7.96	Baythroid XL	oz	2.65
Liberty 280	oz	0.60	Belt	oz	7.90
Linex	pt	9.28	Bidrin 8EC	oz	1.17
Londax	oz	18.08	Bifenthrin	oz	0.78
Lorox	lb	24.12	Bifenture 2EC	pt	12.36
Metribuzin 75	lb	15.87	Brigade EC	pt	11.85
MSMA 6.6	pt	2.90	Capture LFR	oz	2.28
MSMA6 Plus	pt	3.63	Carbaryl 4L	pt	5.85
Newpath	oz	3.83	Carbine 50WG	oz	5.93
Osprey	oz	3.61	Centric 40WG	oz	5.38
Outlook	pt	17.47	Comite 1l	pt	8.45
Paraquat	oz	0.28	Confirm 2F	oz	2.06
Parazone 3SL	oz	0.28	Diamond .83EC	pt	22.36
Permit	oz	22.43	Diamond .83EC	oz	1.40
Poast	pt	12.77	Dimethoate 4E	pt	5.31
Prefix	pt	6.53	Dimilin 2L	oz	1.45
Prowl 3.3 EC	pt	6.07	Dipel DF	lb	13.13
Pursuit	oz	3.51	Dipel ES	pt	4.89
Quinstar 4L	oz	1.60	Endigo ZC	pt	24.86
Raptor	oz	4.38	Force 3G	lb	6.03
RealmQ	oz	4.97	Gaicho 600	oz	2.35
RebelEx	oz	2.67	Hero	pt	25.77
Reflex	pt	6.52	Imidacloprid 4F	oz	0.78

(continued)

Appendix Table 4. Operating inputs: estimated prices, Mississippi, 2018 (continued)

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Imidan 70 WSB	oz	0.67	Peanut Seed	lb	0.84
IncidentalPestTrt \$8	acre	8.00	Rice Clearfield	lb	0.95
IncidentalPestTrt\$22	acre	22.00	Rice Clrflld Hyb Trt	lb	5.55
IncidentalPestTrt\$30	acre	30.00	Rice Conv Hyb Trt	lb	5.66
Intrepid 2F	oz	2.00	Rice Seed CF(Levees)	lb	0.95
Intruder 70WSP	oz	9.71	Rice Seed CFH(Levee)	lb	1.78
Karate Z	oz	2.74	Rice Seed Conv.	lb	0.28
Lambda	oz	1.04	Rice Seed Cv(Levees)	lb	0.28
Lannate LV	pt	10.88	Rice Seed CvH(Levee)	lb	1.66
Leverage 2.7	oz	2.17	Rice Seed Trt/Insect	lbseed	0.23
Lorsban 15G	lb	2.35	Sorghum Concept	lb	2.57
Lorsban 4E	pt	6.10	Sorghum Concept+ Po	lb	3.92
Macho	oz	0.62	Soybean Seed LL	lb	1.28
Malathion 5E	pt	4.09	Soybean Seed RR2	lb	1.51
Malathion 8E	pt	5.50	Soybean Seed RR2X	lb	1.47
Mustang Max	oz	1.34	Wheat Seed Private	lb	0.29
Nuprid 4F	oz	0.88	SOIL TEST		
Oberon 4 SC	pt	59.84	Soil Test	acre	10.00
Pounce 25WP	lb	14.13	SURVEY & MARK LEVEES		
Prevathon	oz	1.32	Survey & Mark Levees	acre	4.50
Radiant	oz	6.82	Survey & Mark Levees	acre	4.50
Sevin 4F	pt	6.24	TECHNOLOGY FEE		
Sevin XLR Plus	qt	13.23	W3RF Cot Tech Fee	thous	1.45
Sivanto Prime	oz	2.55			
Transform WG	oz	8.18			
IRRIGATION SUPPLIES					
Roll-Out Pipe	ft	0.25			
SEED/PLANTS					
Corn Seed BtRR	thous	3.63			
Corn Seed Conv.	thous	2.89			
Corn Seed RR2	thous	3.24			
Cotton Seed GLB2	thous	3.10			
Cotton Seed W3RF	thous	0.73			

Appendix Table 5. Estimated fuel prices
and interest rates, Mississippi, 2018

ITEM NAME	UNIT	PRICE
		dollars
FUEL TYPES		
Diesel Fuel	gal	1.80
Gasoline	gal	2.10
LP Gas	gal	1.65
INTEREST RATES		
Short-term	%	4.75
Intermediate-term	%	5.00

Appendix Table 6. Labor types, wage rates and unallocated labor
multipliers for crop enterprises, Mississippi, 2018

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	13.51
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, 2018

Crop	unit	Futures Contract Month	Futures Contract Price ^a	Basis ^b	Forward Contract Price ^c	Loan Rate ^d	Budget Price ^e
Corn	bu	Dec '18	3.96	-0.20	3.76	2.10	3.76
Cotton Lint	lb	Dec '18	0.6788	-0.0181	0.6607	0.52	0.6607
Cottonseed	lb						0.10 ^f
Grain Sorghum	bu				3.57	2.02	3.57
Peanuts	ton				385.00	355.00	385.00
Soybeans	bu	Nov '18	9.83	+0.07	9.90	5.21	9.90
Rice	bu	Nov '18	5.17	-0.27	4.90	2.96	4.90
Wheat	bu	Jul '18	4.88	-0.17	4.71	2.76	4.71

^a Average of the daily closing futures contract prices during the first 5 trading days in October 2017 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 2017 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 2017 crop year for corn, grain sorghum, soybeans and wheat. Mississippi CCC 2017 Farm-stored Loan Rate for long grain rough rice. National 2018 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 2007-2016.

Appendix Table 8. Estimated costs for field operations, per acre
 Irrigation with a 1/4-mile center pivot system
 135-acre system, 7.5 ac-in., Delta Area, Mississippi, 2018

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				0.27			0.01	0.28	0.28
Maintenance										
IRRIGATE LABOR	hour				1.07			0.03	1.10	1.10
Apply Water										
IRRIGATE LABOR	hour				0.15				0.15	0.15
Apply Water										
IRRIGATE LABOR	hour				0.20				0.20	0.20
Apply Water										
IRRIGATE LABOR	hour				0.15				0.15	0.15
Pivot, 1/4 CP	each			13.48				0.27	13.75	54.09
Well & Pump, 1/4 CP	each			3.50				0.07	3.57	10.35
Engine, 1/4 CP, 65	each									9.99
June Irr. 3app@.75"	ac-in		6.05	1.40				0.15	7.60	7.60
July Irr. 4app@.75"	ac-in		8.06	1.87				0.16	10.09	10.09
Aug Irr. 3app@.75"	ac-in		6.05	1.40				0.09	7.54	7.54
TOTALS		0.00	20.16	21.65	1.84	0.00	0.78		44.43	74.43

Note: Cost of production estimates are based on 2017 input prices.

Appendix Table 9 Estimated costs for field operations, per acre
 Corn irrigated with roll-out pipe
 160-acre system, 13 ac-in., Delta Area, Mississippi, 2018

OPERATION/ OPERATING INPUT	SIZE/ UNIT	-----DIRECT COST-----							FIXED COST	TOTAL COST
		OP INPUT	FUEL	R&M	LABOR	LEASE	INTER	TOTAL		
-----dollars-----										
Land Plane	50'x16'		0.67	0.31	0.51			0.07	1.56	1.58
Set Up Engine										
IRRIGATE LABOR	hour				0.23				0.23	0.23
Ditcher (1m/160a)			0.15	0.06	0.13			0.01	0.35	0.31
Roll-Out Pipe	ft	8.25						0.13	8.38	8.38
Lay Roll-out Pipe										
Pipe Spool 160ac	1/4m roll		0.20	0.09	0.40			0.01	0.70	0.66
IRRIGATE LABOR	hour				1.81			0.03	1.84	1.84
Apply Water										
IRRIGATE LABOR	hour				0.23				0.23	0.23
Apply Water										
IRRIGATE LABOR	hour				0.23				0.23	0.23
Apply Water										
IRRIGATE LABOR	hour				0.23				0.23	0.23
Apply Water										
IRRIGATE LABOR	hour				0.23				0.23	0.23
Pick Up Pipe										
Pipe Spool 160ac	1/4m roll		0.30	0.13	0.59			0.01	1.03	0.98
Land Forming (\$450)	each									31.93
Well & Pump, Furrow	each			2.96				0.05	3.01	8.74
Main Line Pipe	each									4.32
Engine, RPF, Corn	each									8.43
1st June Irrigation	ac-in		4.77	0.98				0.09	5.84	5.84
2nd June Irrigation	ac-in		4.77	0.98				0.09	5.84	5.84
3rd June Irrigation	ac-in		4.77	0.98				0.09	5.84	5.84
July Irrigation	ac-in		4.77	0.98				0.07	5.82	5.82
TOTALS		8.25	20.40	7.47	4.59	0.00	0.65		41.36	56.95

Note: Cost of production estimates are based on 2017 input prices.

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