

FORAGE 2022 PLANNING BUDGETS

**Mississippi State University
Department of Agricultural Economics
Budget Report 2021-08**

April 2021

Foreword

This report is designed to provide necessary planning data to farmers, research and extension staffs, lending agencies, and others in agriculture. Estimated costs for land, management, and general farm overhead are not included in this report.

Acknowledgments

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

Special appreciation is expressed to farm supply dealers, equipment dealers, custom operators, and chemical companies who provided prices for crop production inputs.

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

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

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Publication Review

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Evan Gregory, MSU-ES

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2022 Planning Budgets

Budgets for Agricultural Enterprises

This publication provides economic and technical information in the form of enterprise budgets for forage crops 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 for each enterprise (14). The purpose of this section is to present the methods and procedures used to calculate costs for each budget included in this publication.

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

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

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

Methods and Procedures

Production Practices

The production practices listed in each budget are the result of a combined effort by researchers and extension personnel to represent those practices that producers could use in a specific production system. Producers might use different practices in their own operations. If different types and quantities of operating inputs are to be used, then the budgeted expenses should be changed to more accurately reflect actual input usage.

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

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 2020. (Appendix Tables 1 and 2).

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 short-term capital (Appendix Tables 4, 5, and 6).

The labor wage rate per hour includes social security, accident and unemployment insurance, and some prerequisites (11). Labor costs are estimated for four labor categories: operator labor and hand 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

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

Estimates of Fixed Costs

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

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

where:

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

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

where:

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

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

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

$$CRCPA = CRCPH \times PR$$

where:

CRCPH = Capital recovery charge per hour
 HAU = Hours of annual use
 CRCPA = Capital recovery charge per acre
 PR = Performance rate

Enterprise Budgets

Table 1.A Estimated resource use and costs for field operations, per acre
 Conventional Alfalfa hay establishment, prepared
 seedbed, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.5000	47.45	23.73	23.73
Chisel Plow	15'	2WD 75	0.130	1.00	Aug	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Disk Harrow	14'	2WD 75	0.140	2.00	Aug	2.76	1.96	2.06	4.20	0.28	4.12				15.10
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Aug	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Pursuit	oz											3.0000	2.89	8.67	8.67
Clethodim	oz											8.0000	0.50	4.00	4.00
Surfactant	pt											0.3000	3.30	0.99	0.99
Custom Spread(Truck) appl				1.00	Sep							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											3.0000	22.11	66.33	66.33
Boron Plus	gal											0.5000	20.48	10.24	10.24
Disk Harrow	14'	2WD 75	0.140	1.00	Sep	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Section Harrow	13'	2WD 75	0.119	1.00	Sep	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Grain Drill	12'	2WD 75	0.157	1.00	Sep	1.54	1.10	1.66	3.05	0.31	3.73				11.08
Alfalfa Seed	lb											20.0000	4.56	91.20	91.20
Cultipacker	12'	2WD 75	0.124	1.00	Sep	1.22	0.87	0.20	0.26	0.12	1.83				4.38
TOTALS						9.98	7.09	5.91	11.07	1.20	16.61			233.27	283.93
INTEREST ON OPERATING CAPITAL															6.39
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															290.32

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 1.B Estimated costs per acre
 Conventional Alfalfa hay establishment, prepared
 seedbed, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	3.0000	66.33	_____
Boron Plus	gal	20.48	0.5000	10.24	_____
HERBICIDE					
Pursuit	oz	2.89	3.0000	8.67	_____
Clethodim	oz	0.50	8.0000	4.00	_____
SEED/PLANTS					
Alfalfa Seed	lb	4.56	20.0000	91.20	_____
ADJUVANTS					
Surfactant	pt	3.30	0.3000	0.99	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	1.0000	7.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.5000	23.73	_____
OPERATOR LABOR					
Tractors	hour	14.68	1.0155	14.91	_____
HAND LABOR					
Implements	hour	9.06	0.1884	1.70	_____
DIESEL FUEL					
Tractors	gal	2.23	3.9205	8.75	_____
REPAIR & MAINTENANCE					
Implements	acre	5.91	1.0000	5.91	_____
Tractors	acre	1.23	1.0000	1.23	_____
INTEREST ON OP. CAP.	acre	6.39	1.0000	6.39	_____
TOTAL DIRECT EXPENSES				272.16	_____
FIXED EXPENSES					
Implements	acre	11.07	1.0000	11.07	_____
Tractors	acre	7.09	1.0000	7.09	_____
TOTAL FIXED EXPENSES				18.16	_____
TOTAL SPECIFIED EXPENSES				290.32	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 2.A Estimated resource use and costs for field operations, per acre
 Conventional Alfalfa hay maintenance
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT		TOTAL COST		
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE		COST	
						-----dollars-----				dollars		-----dollars-----				
Soil Testing	acre			0.33	Nov							0.3300	10.00	3.30	3.30	
Lime (Spread)	ton			1.00	Nov							0.5000	47.45	23.73	23.73	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Nov	0.62	0.44	0.22	0.25	0.09	1.20				2.73	
Metribuzin 75	lb											1.0000	18.30	18.30	18.30	
Custom Spread(Truck)	appl			1.00	Mar							1.0000	7.50	7.50	7.50	
Phosphate (46% P2O5)	cwt											2.0000	17.31	34.62	34.62	
Potash (60% K2O)	cwt											1.5000	22.11	33.17	33.17	
Boron Plus	gal											0.5000	20.48	10.24	10.24	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Mar	0.62	0.44	0.22	0.25	0.09	1.20				2.73	
Pusuit	oz											3.0000	2.89	8.67	8.67	
Surfactant	pt											0.3000	3.30	0.99	0.99	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Mar	0.62	0.44	0.22	0.25	0.09	1.20				2.73	
Mustang Max	oz											4.0000	1.10	4.40	4.40	
Hay Cut-Cond	9'	2WD 75	0.229	1.00	May	2.25	1.60	3.94	4.28	0.22	3.36				15.43	
Hay Tedder	17'	2WD 75	0.101	1.00	May	9.69	0.71	0.41	0.55	0.10	1.48				12.84	
Hay Rake-Double	17'	2WD 75	0.101	2.00	May	1.98	1.41	0.71	0.97	0.20	2.97				8.04	
Hay Baler	Square	2WD 75	0.229	1.00	May	2.25	1.60	3.10	4.20	0.22	3.36				14.51	
Twine	bun											0.0800	25.00	2.00	2.00	
Hay Trailer	20'	2WD 75	0.090	1.00	May	0.88	0.63	0.11	0.18	0.09	1.32				3.12	
Hay Haul (Conv)	ton											1.5000	25.00	37.50	37.50	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	May	0.64	0.61	0.22	0.25	0.09	1.20				2.92	
Gramoxone SL 2.0	oz											12.0000	0.19	2.28	2.28	
Surfactant	pt											0.3000	3.30	0.99	0.99	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Jun	0.64	0.61	0.22	0.25	0.09	1.20				2.92	
Mustang Max	oz											4.0000	1.10	4.40	4.40	
Hay Cut-Cond	9'	2WD 75	0.229	1.00	Jun	2.25	1.60	3.94	4.28	0.22	3.36				15.43	
Hay Tedder	17'	2WD 75	0.101	1.00	Jun	9.69	0.71	0.41	0.55	0.10	1.48				12.84	
Hay Rake-Double	17'	2WD 75	0.101	2.00	Jun	1.98	1.41	0.71	0.97	0.20	2.97				8.04	
Hay Baler	Square	2WD 75	0.229	1.00	Jun	2.25	1.60	3.10	4.20	0.22	3.36				14.51	
Twine	bun											0.0800	25.00	2.00	2.00	
Hay Trailer	20'	2WD 75	0.090	1.00	Jun	0.88	0.63	0.11	0.18	0.09	1.32				3.12	
Hay Haul (Conv)	ton											1.5000	25.00	37.50	37.50	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Jun	0.62	0.44	0.22	0.25	0.09	1.20				2.73	
Gramoxone SL 2.0	oz											12.0000	0.19	2.28	2.28	
Surfactant	pt											0.3000	3.30	0.99	0.99	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Jun	0.62	0.44	0.22	0.25	0.09	1.20				2.73	
Poast	pt											1.0000	13.50	13.50	13.50	
Crop Oil (veg)	pt											2.0000	2.90	5.80	5.80	
Custom Spread(Truck)	appl			1.00	Jul							1.0000	7.50	7.50	7.50	
Potash (60% K2O)	cwt											1.5000	22.11	33.17	33.17	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Aug	0.62	0.44	0.22	0.25	0.09	1.20				2.73	
Mustang Max	oz											4.0000	1.10	4.40	4.40	
Hay Cut-Cond	9'	2WD 75	0.229	1.00	Aug	2.25	1.60	3.94	4.28	0.22	3.36				15.43	
Hay Tedder	17'	2WD 75	0.101	1.00	Aug	9.69	0.71	0.41	0.55	0.10	1.48				12.84	
Hay Rake-Double	17'	2WD 75	0.101	2.00	Aug	1.98	1.41	0.71	0.97	0.20	2.97				8.04	
Hay Baler	Square	2WD 75	0.229	1.00	Aug	2.25	1.60	3.10	4.20	0.22	3.36				14.51	
Twine	bun											0.0500	25.00	1.25	1.25	
Hay Trailer	20'	2WD 75	0.090	1.00	Aug	0.88	0.63	0.11	0.18	0.09	1.32				3.12	
Hay Haul (Conv)	ton											1.0000	25.00	25.00	25.00	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Aug	0.64	0.61	0.22	0.25	0.09	1.20				2.92	
Gramoxone SL 2.0	oz											12.0000	0.19	2.28	2.28	
Surfactant	pt											0.3000	3.30	0.99	0.99	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Sep	0.64	0.61	0.22	0.25	0.09	1.20				2.92	
Mustang Max	oz											4.0000	1.10	4.40	4.40	
Hay Cut-Cond	9'	2WD 75	0.229	1.00	Sep	2.25	1.60	3.94	4.28	0.22	3.36				15.43	
Hay Tedder	17'	2WD 75	0.101	1.00	Sep	9.69	0.71	0.41	0.55	0.10	1.48				12.84	
Hay Rake-Double	17'	2WD 75	0.101	2.00	Sep	1.98	1.41	0.71	0.97	0.20	2.97				8.04	
Hay Baler	Square	2WD 75	0.229	1.00	Sep	2.25	1.60	3.10	4.20	0.22	3.36				14.51	
Twine	bun											0.0500	25.00	1.25	1.25	
Hay Trailer	20'	2WD 75	0.090	1.00	Sep	0.88	0.63	0.11	0.18	0.09	1.32				3.12	
Hay Haul (Conv)	ton											1.0000	25.00	25.00	25.00	
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Sep	0.64	0.61	0.22	0.25	0.09	1.20				2.92	
Gramoxone SL 2.0	oz											12.0000	0.19	2.28	2.28	
Surfactant	pt											0.3000	3.30	0.99	0.99	
Prorated Est Cost	acre				Sep							1.0000			22.32	
TOTALS							75.12	29.49	35.50	43.47	4.44	63.16			362.67	631.73
INTEREST ON OPERATING CAPITAL															3.60	3.60
UNALLOCATED LABOR															0.00	0.00
TOTAL SPECIFIED COST																635.33

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 2.B Estimated costs per acre
 Conventional Alfalfa hay maintenance
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	2.0000	34.62	_____
Potash (60% K2O)	cwt	22.11	3.0000	66.33	_____
Boron Plus	gal	20.48	0.5000	10.24	_____
HERBICIDE					
Metribuzin 75	lb	18.30	1.0000	18.30	_____
Pusuit	oz	2.89	3.0000	8.67	_____
Gramoxone SL 2.0	oz	0.19	48.0000	9.12	_____
Poast	pt	13.50	1.0000	13.50	_____
INSECTICIDE					
Mustang Max	oz	1.10	16.0000	17.60	_____
HAUL					
Hay Haul (Conv)	ton	25.00	5.0000	125.00	_____
OTHER					
Twine	bun	25.00	0.2600	6.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.5000	4.95	_____
Crop Oil (veg)	pt	2.90	2.0000	5.80	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.5000	23.73	_____
OPERATOR LABOR					
Tractors	hour	14.68	4.0960	60.08	_____
HAND LABOR					
Implements	hour	9.06	0.3447	3.08	_____
DIESEL FUEL					
Tractors	gal	2.23	31.4238	70.02	_____
REPAIR & MAINTENANCE					
Implements	acre	35.50	1.0000	35.50	_____
Tractors	acre	5.10	1.0000	5.10	_____
INTEREST ON OP. CAP.	acre	3.60	1.0000	3.60	_____
TOTAL DIRECT EXPENSES				540.05	_____
FIXED EXPENSES					
Implements	acre	43.47	1.0000	43.47	_____
Tractors	acre	29.49	1.0000	29.49	_____
Prorated Est Cost	acre	22.32	1.0000	22.32	_____
TOTAL FIXED EXPENSES				95.28	_____
TOTAL SPECIFIED EXPENSES				635.33	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 3.A Estimated resource use and costs for field operations, per acre
Bahagrass establishment, broadcast
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Chisel Plow	15'	2WD 75	0.130	1.00	Mar	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Apr							0.3300	47.45	15.66	15.66
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.64	0.61	0.22	0.25	0.09	1.20				2.92
Glyphosate 3lbs a.e.	pt											2.0000	2.11	4.22	4.22
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Section Harrow	13'	2WD 75	0.119	1.00	Apr	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Cyclone Spin	750Lb	2WD 105	0.200	1.00	Apr	2.81	2.35	0.23	0.83	0.30	3.85				10.07
Bahagrass Seed	lb											20.0000	2.38	47.60	47.60
Cultipacker	12'	2WD 75	0.124	1.00	Apr	1.22	0.87	0.20	0.26	0.12	1.83				4.38
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.2500	16.50	37.13	37.13
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
TOTALS						10.86	8.21	4.49	7.46	1.14	16.11			174.28	221.41
INTEREST ON OPERATING CAPITAL															4.52
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															225.93

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 3.B Estimated costs per acre
 Bahiagrass establishment, broadcast
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	2.2500	37.13	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.0000	4.22	_____
SEED/PLANTS					
Bahiagrass Seed	lb	2.38	20.0000	47.60	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	1.0163	14.92	_____
HAND LABOR					
Implements	hour	9.06	0.1313	1.19	_____
DIESEL FUEL					
Tractors	gal	2.23	4.2323	9.45	_____
REPAIR & MAINTENANCE					
Implements	acre	4.49	1.0000	4.49	_____
Tractors	acre	1.41	1.0000	1.41	_____
INTEREST ON OP. CAP.	acre	4.52	1.0000	4.52	_____
TOTAL DIRECT EXPENSES				210.26	_____
FIXED EXPENSES					
Implements	acre	7.46	1.0000	7.46	_____
Tractors	acre	8.21	1.0000	8.21	_____
TOTAL FIXED EXPENSES				15.67	_____
TOTAL SPECIFIED EXPENSES				225.93	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 4.A Estimated resource use and costs for field operations, per acre
Bahia grass establishment, drilled on prepared seed bed
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Chisel Plow	15'	2WD 75	0.130	1.00	Mar	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			0.33	Apr							0.3300	47.45	15.66	15.66
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.0000	2.11	4.22	4.22
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Section Harrow	13'	2WD 75	0.119	1.00	Apr	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Grain Drill	12'	2WD 75	0.157	1.00	Apr	1.54	1.10	1.66	3.05	0.31	3.73				11.08
Bahia grass Seed	lb											20.0000	2.38	47.60	47.60
Cultipacker	12'	2WD 75	0.124	1.00	Apr	1.22	0.87	0.20	0.26	0.12	1.83				4.38
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.2500	16.50	37.13	37.13
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
TOTALS						9.57	6.79	5.92	9.68	1.16	15.99			174.28	222.23
INTEREST ON OPERATING CAPITAL															5.17
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															227.40

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 4.B Estimated costs per acre
 Bahiagrass establishment, drilled on prepared seed bed
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	2.2500	37.13	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.0000	4.22	_____
SEED/PLANTS					
Bahiagrass Seed	lb	2.38	20.0000	47.60	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.9734	14.29	_____
HAND LABOR					
Implements	hour	9.06	0.1884	1.70	_____
DIESEL FUEL					
Tractors	gal	2.23	3.7580	8.39	_____
REPAIR & MAINTENANCE					
Implements	acre	5.92	1.0000	5.92	_____
Tractors	acre	1.18	1.0000	1.18	_____
INTEREST ON OP. CAP.	acre	5.17	1.0000	5.17	_____
TOTAL DIRECT EXPENSES				210.93	_____
FIXED EXPENSES					
Implements	acre	9.68	1.0000	9.68	_____
Tractors	acre	6.79	1.0000	6.79	_____
TOTAL FIXED EXPENSES				16.47	_____
TOTAL SPECIFIED EXPENSES				227.40	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 5.A Estimated resource use and costs for field operations, per acre
Bahagrass establishment, no-till
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			0.33	Apr							0.3300	47.45	15.66	15.66
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.0000	2.11	4.22	4.22
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
NT Grain Drill	12'	2WD 75	0.196	1.00	Apr	1.93	1.37	3.43	6.32	0.39	4.66				17.71
Bahagrass Seed	lb											20.0000	2.38	47.60	47.60
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.2500	16.50	37.13	37.13
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
TOTALS						3.52	2.49	4.69	7.28	0.58	7.30			174.28	199.56
INTEREST ON OPERATING CAPITAL															4.74
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															204.30

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 5.B Estimated costs per acre
 Bahiagrass establishment, no-till
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	2.2500	37.13	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.0000	4.22	_____
SEED/PLANTS					
Bahiagrass Seed	lb	2.38	20.0000	47.60	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.3573	5.24	_____
HAND LABOR					
Implements	hour	9.06	0.2277	2.06	_____
DIESEL FUEL					
Tractors	gal	2.23	1.3793	3.08	_____
REPAIR & MAINTENANCE					
Implements	acre	4.69	1.0000	4.69	_____
Tractors	acre	0.44	1.0000	0.44	_____
INTEREST ON OP. CAP.	acre	4.74	1.0000	4.74	_____
TOTAL DIRECT EXPENSES				194.53	_____
FIXED EXPENSES					
Implements	acre	7.28	1.0000	7.28	_____
Tractors	acre	2.49	1.0000	2.49	_____
TOTAL FIXED EXPENSES				9.77	_____
TOTAL SPECIFIED EXPENSES				204.30	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 6.A Estimated resource use and costs for field operations, per acre
Seeded bermudagrass establishment, broadcast seed
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Chisel Plow	15'	2WD 75	0.130	1.00	Mar	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Apr							0.3300	47.45	15.66	15.66
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.0000	2.11	4.22	4.22
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Section Harrow	13'	2WD 75	0.119	1.00	Apr	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Cyclone Spin	750Lb	2WD 75	0.200	1.00	Apr	1.96	1.39	0.23	0.83	0.30	3.85				8.26
Bermudagrass Seed	lb											10.0000	4.50	45.00	45.00
Cultipacker	12'	2WD 75	0.124	1.00	Apr	1.22	0.87	0.20	0.26	0.12	1.83				4.38
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.2500	16.50	37.13	37.13
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
TOTALS						9.99	7.08	4.49	7.46	1.14	16.11			171.68	216.81
INTEREST ON OPERATING CAPITAL															4.44
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															221.25

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 6.B Estimated costs per acre
Seeded bermudagrass establishment, broadcast seed
Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	2.2500	37.13	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.0000	4.22	_____
SEED/PLANTS					
Common Bermuda Seed	lb	4.50	10.0000	45.00	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	1.0163	14.92	_____
HAND LABOR					
Implements	hour	9.06	0.1313	1.19	_____
DIESEL FUEL					
Tractors	gal	2.23	3.9235	8.76	_____
REPAIR & MAINTENANCE					
Implements	acre	4.49	1.0000	4.49	_____
Tractors	acre	1.23	1.0000	1.23	_____
INTEREST ON OP. CAP.	acre	4.44	1.0000	4.44	_____
TOTAL DIRECT EXPENSES				206.71	_____
FIXED EXPENSES					
Implements	acre	7.46	1.0000	7.46	_____
Tractors	acre	7.08	1.0000	7.08	_____
TOTAL FIXED EXPENSES				14.54	_____
TOTAL SPECIFIED EXPENSES				221.25	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 7.A Estimated resource use and costs for field operations, per acre
Seeded bermudagrass establishment, no-till
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			0.33	Apr							0.3300	47.45	15.66	15.66
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.0000	2.11	4.22	4.22
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
NT Grain Drill	12'	2WD 75	0.196	1.00	Apr	1.93	1.37	3.43	6.32	0.39	4.66				17.71
Bermudagrass Seed	lb											10.0000	4.50	45.00	45.00
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.2500	16.50	37.13	37.13
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
TOTALS						3.52	2.49	4.69	7.28	0.58	7.30			171.68	196.96
INTEREST ON OPERATING CAPITAL															4.67
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															201.63

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 7.B Estimated costs per acre
Seeded bermudagrass establishment, no-till
Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	2.2500	37.13	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.0000	4.22	_____
SEED/PLANTS					
Common Bermuda Seed	lb	4.50	10.0000	45.00	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.3573	5.24	_____
HAND LABOR					
Implements	hour	9.06	0.2277	2.06	_____
DIESEL FUEL					
Tractors	gal	2.23	1.3793	3.08	_____
REPAIR & MAINTENANCE					
Implements	acre	4.69	1.0000	4.69	_____
Tractors	acre	0.44	1.0000	0.44	_____
INTEREST ON OP. CAP.	acre	4.67	1.0000	4.67	_____
TOTAL DIRECT EXPENSES				191.86	_____
FIXED EXPENSES					
Implements	acre	7.28	1.0000	7.28	_____
Tractors	acre	2.49	1.0000	2.49	_____
TOTAL FIXED EXPENSES				9.77	_____
TOTAL SPECIFIED EXPENSES				201.63	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 8.A Estimated resource use and costs for field operations, per acre
Seeded bermudagrass, drill in prepared seed bed
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Chisel Plow	15'	2WD 75	0.130	1.00	Mar	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Apr							0.3300	47.45	15.66	15.66
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.0000	2.11	4.22	4.22
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Disk Harrow	14'	2WD 75	0.140	1.00	Apr	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Section Harrow	13'	2WD 75	0.119	1.00	Apr	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Grain Drill	12'	2WD 130	0.157	1.00	Apr	2.89	3.22	1.66	3.05	0.31	3.73				14.55
Bermudagrass Seed	lb											10.0000	4.50	45.00	45.00
Cultipacker	12'	2WD 75	0.124	1.00	Apr	1.22	0.87	0.20	0.26	0.12	1.83				4.38
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.2500	16.50	37.13	37.13
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
TOTALS						10.92	8.91	5.92	9.68	1.16	15.99			171.68	223.10
INTEREST ON OPERATING CAPITAL															4.49
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															227.59

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 8.B Estimated costs per acre
Seeded bermudagrass, drill in prepared seed bed
Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	2.2500	37.13	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.0000	4.22	_____
SEED/PLANTS					
Common Bermuda Seed	lb	4.50	10.0000	45.00	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.9734	14.29	_____
HAND LABOR					
Implements	hour	9.06	0.1884	1.70	_____
DIESEL FUEL					
Tractors	gal	2.23	4.2029	9.38	_____
REPAIR & MAINTENANCE					
Implements	acre	5.92	1.0000	5.92	_____
Tractors	acre	1.54	1.0000	1.54	_____
INTEREST ON OP. CAP.	acre	4.49	1.0000	4.49	_____
TOTAL DIRECT EXPENSES				209.00	_____
FIXED EXPENSES					
Implements	acre	9.68	1.0000	9.68	_____
Tractors	acre	8.91	1.0000	8.91	_____
TOTAL FIXED EXPENSES				18.59	_____
TOTAL SPECIFIED EXPENSES				227.59	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 9.A Estimated resource use and costs for field operations, per acre
 Permanent summer pasture maintenance (i.e. bahiagrass,
 bermudagrass, dallisgrass, mixed grasses),Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre		0.33		Apr							0.3300	10.00	3.30	3.30
Custom Spread(Truck)	appl		1.00		Apr							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.62	0.44	0.22	0.25	0.09	1.20				2.73
GrazonNext	pt											1.5000	9.69	14.54	14.54
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl		1.00		Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Rotary Mower	12'	2WD 75	0.098	1.00	Aug	0.97	0.68	1.04	0.71	0.09	1.44				4.84
Lime (Spread)	ton		1.00		Aug							0.3300	47.45	15.66	15.66
Prorated Est Cost	acre				Aug							1.0000			17.48
TOTALS						1.59	1.12	1.26	0.96	0.19	2.64			140.72	165.77
INTEREST ON OPERATING CAPITAL															3.44
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															169.21

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 9.B Estimated costs per acre
 Permanent summer pasture maintenance (i.e. bahiagrass,
 bermudagrass, dallisgrass, mixed grasses), Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	3.0000	49.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
HERBICIDE					
GrazonNext	pt	9.69	1.5000	14.54	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.1608	2.36	_____
HAND LABOR					
Implements	hour	9.06	0.0313	0.28	_____
DIESEL FUEL					
Tractors	gal	2.23	0.6210	1.39	_____
REPAIR & MAINTENANCE					
Implements	acre	1.26	1.0000	1.26	_____
Tractors	acre	0.20	1.0000	0.20	_____
INTEREST ON OP. CAP.	acre	3.44	1.0000	3.44	_____
TOTAL DIRECT EXPENSES				149.65	_____
FIXED EXPENSES					
Implements	acre	0.96	1.0000	0.96	_____
Tractors	acre	1.12	1.0000	1.12	_____
Prorated Est Cost	acre	17.48	1.0000	17.48	_____
TOTAL FIXED EXPENSES				19.56	_____
TOTAL SPECIFIED EXPENSES				169.21	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 10.A Estimated resource use and costs for field operations, per acre
 Permanent summer grass-white clover pasture maintenance
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC HOURS	LABOR COST	OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED			AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
Soil Testing	acre			0.33	Jun							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Jun							0.3300	47.45	15.66	15.66
Rotary Mower	12'	2WD 75	0.098	1.00	Sep	0.97	0.68	1.04	0.71	0.09	1.44				4.84
Tailgate Seeder		2WD 50	0.200	1.00	Sep	1.29	0.79	0.35	0.38	0.20	2.94				5.75
White Clover Seed	lb											3.0000	4.49	13.47	13.47
Custom Spread(Truck)	appl			1.00	Oct							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Prorated Est Cost	acre				Oct							1.0000			17.48
TOTALS						3.23	2.15	2.43	1.80	0.39	5.82			95.85	128.76
INTEREST ON OPERATING CAPITAL															1.80
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															130.56

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 10.B Estimated costs per acre
 Permanent summer grass-white clover pasture maintenance
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	1.0000	16.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
SEED/PLANTS					
White Clover Seed	lb	4.49	3.0000	13.47	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	1.0000	7.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.3964	5.82	_____
DIESEL FUEL					
Tractors	gal	2.23	1.2729	2.85	_____
REPAIR & MAINTENANCE					
Implements	acre	2.43	1.0000	2.43	_____
Tractors	acre	0.38	1.0000	0.38	_____
INTEREST ON OP. CAP.	acre	1.80	1.0000	1.80	_____
TOTAL DIRECT EXPENSES				109.13	_____
FIXED EXPENSES					
Implements	acre	1.80	1.0000	1.80	_____
Tractors	acre	2.15	1.0000	2.15	_____
Prorated Est Cost	acre	17.48	1.0000	17.48	_____
TOTAL FIXED EXPENSES				21.43	_____
TOTAL SPECIFIED EXPENSES				130.56	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 11.A Estimated resource use and costs for field operations, per acre
Mixed grass hay maintenance
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----dollars-----				dollars		-----dollars-----				
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Mar	0.62	0.44	0.22	0.25	0.09	1.20					2.73
GrazonNext	pt											1.5000	9.69	14.54		14.54
Surfactant	pt											1.0000	3.30	3.30		3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50		7.50
Fert 33-0-0-12S	cwt											1.2500	16.50	20.63		20.63
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31		17.31
Potash (60% K2O)	cwt											1.5000	22.11	33.17		33.17
Hay Disc Mower	8'	2WD 75	0.257	1.00	Jun	2.53	1.80	1.80	1.95	0.25	3.78					11.86
Hay Rake	8.5'	2WD 50	0.202	2.00	Jun	2.59	1.59	1.30	1.76	0.40	5.94					13.18
Hay Baler	Lg Round	2WD 75	0.211	1.00	Jun	2.07	1.48	5.81	7.00	0.21	3.11					19.47
Twine	bun											0.0400	25.00	1.00		1.00
Hay Mover	1B Lift	2WD 50	0.300	1.00	Jun	1.92	1.18	0.05	0.10	0.30	4.40					7.65
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50		7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75		24.75
Hay Disc Mower	8'	2WD 75	0.257	1.00	Jul	2.53	1.80	1.80	1.95	0.25	3.78					11.86
Hay Rake	8.5'	2WD 50	0.202	2.00	Jul	2.59	1.59	1.30	1.76	0.40	5.94					13.18
Hay Baler	Lg Round	2WD 75	0.211	1.00	Jul	2.07	1.48	5.81	7.00	0.21	3.11					19.47
Twine	bun											0.0400	25.00	1.00		1.00
Hay Mover	1B Lift	2WD 75	0.300	1.00	Jul	2.94	2.09	0.05	0.10	0.30	4.40					9.58
Custom Spread(Truck)	appl			1.00	Jul							1.0000	7.50	7.50		7.50
Fert 33-0-0-12S	cwt											1.7500	16.50	28.88		28.88
Hay Baler	Lg Round	2WD 75	0.211	1.00	Oct	2.07	1.48	5.81	7.00	0.21	3.11					19.47
Twine	bun											0.0200	25.00	0.50		0.50
Hay Disc Mower	8'	2WD 75	0.257	1.00	Oct	2.53	1.80	1.80	1.95	0.25	3.78					11.86
Hay Rake	8.5'	2WD 50	0.202	2.00	Oct	2.59	1.59	1.30	1.76	0.40	5.94					13.18
Hay Mover	1B Lift	2WD 75	0.300	1.00	Oct	2.94	2.09	0.05	0.10	0.30	4.40					9.58
Soil Testing	acre			0.33	Oct							0.3300	10.00	3.30		3.30
Lime (Spread)	ton			1.00	Oct							0.3300	47.45	15.66		15.66
Prorated Est Cost	acre				Oct							1.0000				17.37
TOTALS						29.99	20.41	27.10	32.68	3.61	52.89			186.54		366.98
INTEREST ON OPERATING CAPITAL																4.68
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																371.66

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 11.B Estimated costs per acre
Mixed grass hay maintenance
Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	4.5000	74.25	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.5000	33.17	_____
HERBICIDE					
GrazonNext	pt	9.69	1.5000	14.54	_____
OTHER					
Twine	bun	25.00	0.1000	2.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	3.0000	22.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	3.5839	52.61	_____
HAND LABOR					
Implements	hour	9.06	0.0313	0.28	_____
DIESEL FUEL					
Tractors	gal	2.23	11.8883	26.50	_____
REPAIR & MAINTENANCE					
Implements	acre	27.10	1.0000	27.10	_____
Tractors	acre	3.49	1.0000	3.49	_____
INTEREST ON OP. CAP.	acre	4.68	1.0000	4.68	_____
TOTAL DIRECT EXPENSES				301.20	_____
FIXED EXPENSES					
Implements	acre	32.68	1.0000	32.68	_____
Tractors	acre	20.41	1.0000	20.41	_____
Prorated Est Cost	acre	17.37	1.0000	17.37	_____
TOTAL FIXED EXPENSES				70.46	_____
TOTAL SPECIFIED EXPENSES				371.66	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 12.A Estimated resource use and costs for field operations, per acre
 Hybrid bermudagrass establishment, 1 cutting of hay
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Chisel Plow	15'	2WD 75	0.130	1.00	Mar	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Apr							0.3300	47.45	15.66	15.66
Disk Harrow	14'	2WD 75	0.140	2.00	Apr	2.76	1.96	2.06	4.20	0.28	4.12				15.10
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											0.9000	16.50	14.85	14.85
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Custom Sprig	acre			1.00	May							1.0000	100.00	100.00	100.00
Cultipacker	12'	2WD 75	0.124	1.00	May	1.22	0.87	0.20	0.26	0.12	1.83				4.38
Spray (Broadcast)	27'	2WD 75	0.062	1.00	May	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Diuron 4L	pt											3.0000	3.03	9.09	9.09
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.1000	16.50	34.65	34.65
Hay Disc Mower	8'	2WD 75	0.257	1.00	Aug	2.53	1.80	1.80	1.95	0.25	3.78				11.86
Hay Tedder	17'	2WD 75	0.101	1.00	Aug	9.69	0.71	0.41	0.55	0.10	1.48				12.84
Hay Rake-Double	17'	2WD 75	0.101	1.00	Aug	0.99	0.71	0.36	0.48	0.10	1.48				4.02
Hay Baler	Lg Round	2WD 75	0.211	1.00	Aug	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0300	25.00	0.75	0.75
TOTALS						21.17	8.88	11.48	15.73	1.30	18.92			241.37	317.55
INTEREST ON OPERATING CAPITAL															5.77
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															323.32

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 12.B Estimated costs per acre
 Hybrid bermudagrass establishment, 1 cutting of hay
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	3.0000	49.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
HERBICIDE					
Diuron 4L	pt	3.03	3.0000	9.09	_____
OTHER					
Twine	bun	25.00	0.0300	0.75	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM PLANT					
Custom Sprig	acre	100.00	1.0000	100.00	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	1.2702	18.64	_____
HAND LABOR					
Implements	hour	9.06	0.0313	0.28	_____
DIESEL FUEL					
Tractors	gal	2.23	8.8064	19.64	_____
REPAIR & MAINTENANCE					
Implements	acre	11.48	1.0000	11.48	_____
Tractors	acre	1.53	1.0000	1.53	_____
INTEREST ON OP. CAP.	acre	5.77	1.0000	5.77	_____
TOTAL DIRECT EXPENSES				298.71	_____
FIXED EXPENSES					
Implements	acre	15.73	1.0000	15.73	_____
Tractors	acre	8.88	1.0000	8.88	_____
TOTAL FIXED EXPENSES				24.61	_____
TOTAL SPECIFIED EXPENSES				323.32	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 13.A Estimated resource use and costs for field operations, per acre
Hybrid bermudagrass hay maintenance
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Mar	0.62	0.44	0.22	0.25	0.09	1.20				2.73
GrazonNext	pt											1.5000	9.69	14.54	14.54
Surfactant	pt											1.0000	3.30	3.30	3.30
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											2.0000	22.11	44.22	44.22
Hay Disc Mower	8'	2WD 75	0.257	1.00	Jun	2.53	1.80	1.80	1.95	0.25	3.78				11.86
Hay Tedder	17'	2WD 75	0.101	1.00	Jun	9.69	0.71	0.41	0.55	0.10	1.48				12.84
Hay Rake-Double	17'	2WD 75	0.101	2.00	Jun	1.98	1.41	0.71	0.97	0.20	2.97				8.04
Hay Baler	Lg Round	2WD 75	0.211	1.00	Jun	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0600	25.00	1.50	1.50
Hay Mover	1B Lift	2WD 75	0.300	1.00	Jun	2.94	2.09	0.05	0.10	0.30	4.40				9.58
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Hay Disc Mower	8'	2WD 75	0.257	1.00	Jul	2.53	1.80	1.80	1.95	0.25	3.78				11.86
Hay Tedder	17'	2WD 75	0.101	1.00	Jul	9.69	0.71	0.41	0.55	0.10	1.48				12.84
Hay Rake-Double	17'	2WD 75	0.101	2.00	Jul	1.98	1.41	0.71	0.97	0.20	2.97				8.04
Hay Baler	Lg Round	2WD 75	0.211	1.00	Jul	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0600	25.00	1.50	1.50
Hay Mover	1B Lift	2WD 75	0.300	1.00	Jul	2.94	2.09	0.05	0.10	0.30	4.40				9.58
Custom Spread(Truck)	appl			1.00	Jul							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Soil Testing	acre			1.00	Aug							1.0000	10.00	10.00	10.00
Lime (Spread)	ton			1.00	Aug							0.5000	47.45	23.73	23.73
Hay Disc Mower	8'	2WD 75	0.257	1.00	Aug	2.53	1.80	1.80	1.95	0.25	3.78				11.86
Hay Tedder	17'	2WD 75	0.101	1.00	Aug	9.69	0.71	0.41	0.55	0.10	1.48				12.84
Hay Rake-Double	17'	2WD 75	0.101	2.00	Aug	1.98	1.41	0.71	0.97	0.20	2.97				8.04
Hay Baler	Lg Round	2WD 75	0.211	1.00	Aug	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0300	25.00	0.75	0.75
Hay Mover	1B Lift	2WD 75	0.300	1.00	Aug	2.94	2.09	0.05	0.10	0.30	4.40				9.58
Custom Spread(Truck)	appl			1.00	Aug							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Hay Disc Mower	8'	2WD 75	0.257	1.00	Sep	2.53	1.80	1.80	1.95	0.25	3.78				11.86
Hay Tedder	17'	2WD 75	0.101	1.00	Sep	9.69	0.71	0.41	0.55	0.10	1.48				12.84
Hay Rake-Double	17'	2WD 75	0.101	2.00	Sep	1.98	1.41	0.71	0.97	0.20	2.97				8.04
Hay Baler	Lg Round	2WD 75	0.211	1.00	Sep	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0300	25.00	0.75	0.75
Hay Mover	1B Lift	2WD 75	0.300	1.00	Sep	2.94	2.09	0.05	0.10	0.30	4.40				9.58
Prorated Est Cost	acre				Sep							1.0000			24.86
TOTALS						77.46	30.40	35.34	42.53	4.38	64.16			277.36	552.11
INTEREST ON OPERATING CAPITAL															6.90
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															559.01

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 13.B Estimated costs per acre
 Hybrid bermudagrass hay maintenance
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	6.0000	99.00	_____
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	3.0000	66.33	_____
HERBICIDE					
GrazonNext	pt	9.69	1.5000	14.54	_____
OTHER					
Twine	bun	25.00	0.1800	4.50	_____
ADJUVANTS					
Surfactant	pt	3.30	1.0000	3.30	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	4.0000	30.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	1.0000	10.00	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.5000	23.73	_____
OPERATOR LABOR					
Tractors	hour	14.68	4.3532	63.88	_____
HAND LABOR					
Implements	hour	9.06	0.0313	0.28	_____
DIESEL FUEL					
Tractors	gal	2.23	32.4168	72.26	_____
REPAIR & MAINTENANCE					
Implements	acre	35.34	1.0000	35.34	_____
Tractors	acre	5.20	1.0000	5.20	_____
INTEREST ON OP. CAP.	acre	6.90	1.0000	6.90	_____
TOTAL DIRECT EXPENSES				461.22	_____
FIXED EXPENSES					
Implements	acre	42.53	1.0000	42.53	_____
Tractors	acre	30.40	1.0000	30.40	_____
Prorated Est Cost	acre	24.86	1.0000	24.86	_____
TOTAL FIXED EXPENSES				97.79	_____
TOTAL SPECIFIED EXPENSES				559.01	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 14.A Estimated resource use and costs for field operations, per acre
Tall fescue-white clover pasture establishment,
prepared seedbed, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Chisel Plow	15'	2WD 75	0.130	1.00	Aug	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Custom Spread(Truck)	appl			1.00	Sep							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Disk Harrow	14'	2WD 75	0.140	2.00	Sep	2.76	1.96	2.06	4.20	0.28	4.12				15.10
Section Harrow	13'	2WD 75	0.119	1.00	Sep	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Grain Drill	12'	2WD 75	0.157	1.00	Sep	1.54	1.10	1.66	3.05	0.31	3.73				11.08
Fescue Seed	lb											20.0000	1.79	35.80	35.80
Cultipacker	12'	2WD 75	0.124	1.00	Sep	1.22	0.87	0.20	0.26	0.12	1.83				4.38
Tailgate Seeder		2WD 50	0.200	1.00	Sep	1.29	0.79	0.35	0.38	0.20	2.94				5.75
White Clover Seed	lb											3.0000	4.49	13.47	13.47
Custom Spread(Truck)	appl			1.00	Oct							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
TOTALS						9.27	6.46	5.01	9.10	1.16	16.29			147.80	193.93
INTEREST ON OPERATING CAPITAL															4.18
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															198.11

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 14.B Estimated costs per acre
Tall fescue-white clover pasture establishment,
prepared seedbed, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	1.0000	16.50	_____
SEED/PLANTS					
Fescue Seed	lb	1.79	20.0000	35.80	_____
White Clover Seed	lb	4.49	3.0000	13.47	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	2.0000	15.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	1.0126	14.87	_____
HAND LABOR					
Implements	hour	9.06	0.1571	1.42	_____
DIESEL FUEL					
Tractors	gal	2.23	3.6516	8.15	_____
REPAIR & MAINTENANCE					
Implements	acre	5.01	1.0000	5.01	_____
Tractors	acre	1.12	1.0000	1.12	_____
INTEREST ON OP. CAP.	acre	4.18	1.0000	4.18	_____
TOTAL DIRECT EXPENSES				182.55	_____
FIXED EXPENSES					
Implements	acre	9.10	1.0000	9.10	_____
Tractors	acre	6.46	1.0000	6.46	_____
TOTAL FIXED EXPENSES				15.56	_____
TOTAL SPECIFIED EXPENSES				198.11	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 15.A Estimated resource use and costs for field operations, per acre
 Tall fescue-white clover pasture establishment,
 novel/endophyte free, sod-seeding, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Sep	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.5000	2.11	5.28	5.28
Custom Spread(Truck)	appl			1.00	Sep							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Grain Drill	12'	2WD 75	0.157	1.00	Sep	1.54	1.10	1.66	3.05	0.31	3.73				11.08
Fescue Seed	lb											20.0000	1.79	35.80	35.80
Grain Drill	12'	2WD 75	0.157	1.00	Sep	1.54	1.10	1.66	3.05	0.31	3.73				11.08
White Clover Seed	lb											3.0000	4.49	13.47	13.47
TOTALS						3.70	2.64	3.54	6.35	0.72	8.66			145.58	170.47
INTEREST ON OPERATING CAPITAL															3.85
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															174.32

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 15.B Estimated costs per acre
Tall fescue-white clover pasture establishment,
novel/endophyte free, sod-seeding, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	1.0000	16.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.5000	5.28	_____
SEED/PLANTS					
Fescue Seed	lb	1.79	20.0000	35.80	_____
White Clover Seed	lb	4.49	3.0000	13.47	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	1.0000	7.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.3769	5.54	_____
HAND LABOR					
Implements	hour	9.06	0.3456	3.12	_____
DIESEL FUEL					
Tractors	gal	2.23	1.4552	3.24	_____
REPAIR & MAINTENANCE					
Implements	acre	3.54	1.0000	3.54	_____
Tractors	acre	0.46	1.0000	0.46	_____
INTEREST ON OP. CAP.	acre	3.85	1.0000	3.85	_____
TOTAL DIRECT EXPENSES				165.33	_____
FIXED EXPENSES					
Implements	acre	6.35	1.0000	6.35	_____
Tractors	acre	2.64	1.0000	2.64	_____
TOTAL FIXED EXPENSES				8.99	_____
TOTAL SPECIFIED EXPENSES				174.32	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 16.A Estimated resource use and costs for field operations, per acre
 Tall fescue-white clover pasture maintenance
 novel-endophyte free, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Rotary Mower	12'	2WD 75	0.098	1.00	Aug	0.97	0.68	1.04	0.71	0.09	1.44				4.84
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Tailgate Seeder		2WD 50	0.200	1.00	Oct	1.29	0.79	0.35	0.38	0.20	2.94				5.75
White Clover Seed	lb											2.0000	4.49	8.98	8.98
Custom Spread(Truck)	appl			1.00	Oct							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Fert 33-0-0-12S	cwt											0.7500	16.50	12.38	12.38
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Mar	0.62	0.44	0.22	0.25	0.09	1.20				2.73
2,4-D amine	pt											1.5000	2.25	3.38	3.38
Prorated Est Cost	acre				Oct							1.0000			13.40
TOTALS						2.88	1.91	1.61	1.34	0.39	5.58			99.27	125.99
INTEREST ON OPERATING CAPITAL															2.25
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															128.24

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 16.B Estimated costs per acre
Tall fescue-white clover pasture maintenance
novel-endophyte free, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	0.7500	12.38	_____
HERBICIDE					
2,4-D amine	pt	2.25	1.5000	3.38	_____
SEED/PLANTS					
White Clover Seed	lb	4.49	2.0000	8.98	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	1.0000	7.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.3608	5.30	_____
HAND LABOR					
Implements	hour	9.06	0.0313	0.28	_____
DIESEL FUEL					
Tractors	gal	2.23	1.1358	2.54	_____
REPAIR & MAINTENANCE					
Implements	acre	1.61	1.0000	1.61	_____
Tractors	acre	0.34	1.0000	0.34	_____
INTEREST ON OP. CAP.	acre	2.25	1.0000	2.25	_____
TOTAL DIRECT EXPENSES				111.59	_____
FIXED EXPENSES					
Implements	acre	1.34	1.0000	1.34	_____
Tractors	acre	1.91	1.0000	1.91	_____
Prorated Est Cost	acre	13.40	1.0000	13.40	_____
TOTAL FIXED EXPENSES				16.65	_____
TOTAL SPECIFIED EXPENSES				128.24	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 17.A Estimated resource use and costs for field operations, per acre
 No-till renovation of old K-31 tall fescue pasture with
 novel endophyte/endophyte free tall fescue, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Mar							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Mar							0.3300	47.45	15.66	15.66
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Apr	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.5000	2.11	5.28	5.28
Surfactant	pt											0.4000	3.30	1.32	1.32
NT Grain Drill	12'	2WD 75	0.196	1.00	May	1.93	1.37	3.43	6.32	0.39	4.66				17.71
SS, PM, FS Seed	lb											25.0000	0.99	24.75	24.75
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Sep	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.5000	2.11	5.28	5.28
NT Grain Drill	12'	2WD 75	0.196	1.00	Sep	1.93	1.37	3.43	6.32	0.39	4.66				17.71
White Clover Seed	lb											3.0000	4.49	13.47	13.47
NT Grain Drill	12'	2WD 75	0.196	1.00	Sep	1.93	1.37	3.43	6.32	0.39	4.66				17.71
Fescue Seed	lb											20.0000	1.79	35.80	35.80
Custom Spread(Truck)	appl			1.00	Oct							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
TOTALS						7.03	4.99	10.73	19.46	1.36	16.38			176.93	235.52
INTEREST ON OPERATING CAPITAL															2.18
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															237.70

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Research suggests tall fescue renovation to novel endophyte fescue will require 2 years glyphosate applications to completely eliminate existing stand.
 SS = Sorghum x Sudan Hybrid, PM = Pearl Millet.

Table 17.B Estimated costs per acre
 No-till renovation of old K-31 tall fescue pasture with
 novel endophyte/endophyte free tall fescue, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	1.0000	16.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	5.0000	10.55	_____
SEED/PLANTS					
SS, PM, FS Seed	lb	0.99	25.0000	24.75	_____
White Clover Seed	lb	4.49	3.0000	13.47	_____
Fescue Seed	lb	1.79	20.0000	35.80	_____
ADJUVANTS					
Surfactant	pt	3.30	0.4000	1.32	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	1.0000	7.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.7146	10.48	_____
HAND LABOR					
Implements	hour	9.06	0.6519	5.90	_____
DIESEL FUEL					
Tractors	gal	2.23	2.7588	6.15	_____
REPAIR & MAINTENANCE					
Implements	acre	10.73	1.0000	10.73	_____
Tractors	acre	0.88	1.0000	0.88	_____
INTEREST ON OP. CAP.	acre	2.18	1.0000	2.18	_____
TOTAL DIRECT EXPENSES				213.25	_____
FIXED EXPENSES					
Implements	acre	19.46	1.0000	19.46	_____
Tractors	acre	4.99	1.0000	4.99	_____
TOTAL FIXED EXPENSES				24.45	_____
TOTAL SPECIFIED EXPENSES				237.70	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.
 Research suggests tall fescue renovation to novel endophyte fescue
 will require 2 years glyphosate applications to completely eliminate
 existing stand.

Table 18.A Estimated resource use and costs for field operations, per acre
 Ryegrass annual pasture, prepared seedbed
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Chisel Plow	15'	2WD 75	0.130	1.00	Aug	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Disk Harrow	14'	2WD 75	0.140	2.00	Aug	2.76	1.96	2.06	4.20	0.28	4.12				15.10
Custom Spread(Truck)	appl			1.00	Sep							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Ryegrass Seed	lb											25.0000	0.80	20.00	20.00
Section Harrow	13'	2WD 75	0.119	1.00	Sep	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Cultipacker	12'	2WD 75	0.124	1.00	Sep	1.22	0.87	0.20	0.26	0.12	1.83				4.38
Custom Spread(Truck)	appl			1.00	Oct							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Custom Spread(Truck)	appl			1.00	Dec							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.0000	16.50	33.00	33.00
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Dec	0.62	0.44	0.22	0.25	0.09	1.20				2.73
2,4-D amine	pt											1.0000	2.25	2.25	2.25
Custom Spread(Truck)	appl			1.00	Mar							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.0000	16.50	33.00	33.00
TOTALS						7.06	5.01	3.22	5.92	0.74	10.82			201.78	233.81
INTEREST ON OPERATING CAPITAL															4.00
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															237.81

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 18.B Estimated costs per acre
 Ryegrass annual pasture, prepared seedbed
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	5.0000	82.50	_____
HERBICIDE					
2,4-D amine	pt	2.25	1.0000	2.25	_____
SEED/PLANTS					
Ryegrass Seed	lb	0.80	25.0000	20.00	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	4.0000	30.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.7181	10.54	_____
HAND LABOR					
Implements	hour	9.06	0.0313	0.28	_____
DIESEL FUEL					
Tractors	gal	2.23	2.7723	6.19	_____
REPAIR & MAINTENANCE					
Implements	acre	3.22	1.0000	3.22	_____
Tractors	acre	0.87	1.0000	0.87	_____
INTEREST ON OP. CAP.	acre	4.00	1.0000	4.00	_____
TOTAL DIRECT EXPENSES				226.88	_____
FIXED EXPENSES					
Implements	acre	5.92	1.0000	5.92	_____
Tractors	acre	5.01	1.0000	5.01	_____
TOTAL FIXED EXPENSES				10.93	_____
TOTAL SPECIFIED EXPENSES				237.81	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 19.A Estimated resource use and costs for field operations, per acre
 Ryegrass-Small Grains annual pasture, prepared seedbed
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Chisel Plow	15'	2WD 75	0.130	1.00	Aug	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Disk Harrow	14'	2WD 75	0.140	2.00	Aug	2.76	1.96	2.06	4.20	0.28	4.12				15.10
Custom Spread(Truck)	appl			1.00	Sep							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Section Harrow	13'	2WD 75	0.119	1.00	Sep	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Grain Drill	12'	2WD 75	0.157	1.00	Sep	1.54	1.10	1.66	3.05	0.31	3.73				11.08
Small Grains Seed	lb											90.0000	0.59	53.10	53.10
Ryegrass Seed	lb											25.0000	0.80	20.00	20.00
Custom Spread(Truck)	appl			1.00	Dec							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.0000	16.50	33.00	33.00
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Dec	0.62	0.44	0.22	0.25	0.09	1.20				2.73
2,4-D amine	pt											1.0000	2.25	2.25	2.25
Custom Spread(Truck)	appl			1.00	Mar							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.0000	16.50	33.00	33.00
TOTALS						7.38	5.24	4.68	8.71	0.93	12.72			238.73	277.46
INTEREST ON OPERATING CAPITAL															5.02
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															282.48

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 19.B Estimated costs per acre
 Ryegrass-Small Grains annual pasture, prepared seedbed
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	5.0000	82.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
HERBICIDE					
2,4-D amine	pt	2.25	1.0000	2.25	_____
SEED/PLANTS					
Small Grains Seed	lb	0.59	90.0000	53.10	_____
Ryegrass Seed	lb	0.80	25.0000	20.00	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	3.0000	22.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.7508	11.02	_____
HAND LABOR					
Implements	hour	9.06	0.1884	1.70	_____
DIESEL FUEL					
Tractors	gal	2.23	2.8985	6.47	_____
REPAIR & MAINTENANCE					
Implements	acre	4.68	1.0000	4.68	_____
Tractors	acre	0.91	1.0000	0.91	_____
INTEREST ON OP. CAP.	acre	5.02	1.0000	5.02	_____
TOTAL DIRECT EXPENSES				268.53	_____
FIXED EXPENSES					
Implements	acre	8.71	1.0000	8.71	_____
Tractors	acre	5.24	1.0000	5.24	_____
TOTAL FIXED EXPENSES				13.95	_____
TOTAL SPECIFIED EXPENSES				282.48	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 20.A Estimated resource use and costs for field operations, per acre
 No-till ryegrass into volunteer summer grasses
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Aug	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Glyphosate 3lbs a.e.	pt											2.0000	2.11	4.22	4.22
Custom Spread(Truck)	appl			1.00	Sep							1.0000	7.50	7.50	7.50
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
NT Grain Drill	12'	2WD 75	0.196	1.00	Sep	1.93	1.37	3.43	6.32	0.39	4.66				17.71
Ryegrass Seed	lb											35.0000	0.80	28.00	28.00
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Sep	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Mustang Max	oz											0.1900	1.10	0.21	0.21
Custom Spread(Truck)	appl			1.00	Oct							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Custom Spread(Truck)	appl			1.00	Dec							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Dec	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Gramoxone SL 2.0	oz											1.0000	0.19	0.19	0.19
Custom Spread(Truck)	appl			1.00	Mar							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.0000	16.50	33.00	33.00
TOTALS						3.79	2.69	4.09	7.07	0.67	8.26			187.00	212.90
INTEREST ON OPERATING CAPITAL															3.67
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															216.57

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 20.B Estimated costs per acre
 No-till ryegrass into volunteer summer grasses
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
Fert 33-0-0-12S	cwt	16.50	4.0000	66.00	_____
HERBICIDE					
Glyphosate 3lbs a.e.	pt	2.11	2.0000	4.22	_____
Gramoxone SL 2.0	oz	0.19	1.0000	0.19	_____
INSECTICIDE					
Mustang Max	oz	1.10	0.1900	0.21	_____
SEED/PLANTS					
Ryegrass Seed	lb	0.80	35.0000	28.00	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	4.0000	30.00	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.3844	5.64	_____
HAND LABOR					
Implements	hour	9.06	0.2904	2.62	_____
DIESEL FUEL					
Tractors	gal	2.23	1.4842	3.31	_____
REPAIR & MAINTENANCE					
Implements	acre	4.09	1.0000	4.09	_____
Tractors	acre	0.48	1.0000	0.48	_____
INTEREST ON OP. CAP.	acre	3.67	1.0000	3.67	_____
TOTAL DIRECT EXPENSES				206.81	_____
FIXED EXPENSES					
Implements	acre	7.07	1.0000	7.07	_____
Tractors	acre	2.69	1.0000	2.69	_____
TOTAL FIXED EXPENSES				9.76	_____
TOTAL SPECIFIED EXPENSES				216.57	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 21.A Estimated resource use and costs for field operations, per acre
Overseeded annual ryegrass pasture maintenance,
Broadcast, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Rotary Mower	12'	2WD 75	0.098	1.00	Aug	0.97	0.68	1.04	0.71	0.09	1.44				4.84
Disk Harrow	14'	2WD 75	0.140	1.00	Oct	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Custom Spread + Seed appl				1.00	Oct							1.0000	5.00	5.00	5.00
Phosphate (46% P2O5)	cwt											2.0000	17.31	34.62	34.62
Potash (60% K2O)	cwt											1.5000	22.11	33.17	33.17
Ryegrass Seed	lb											30.0000	0.80	24.00	24.00
Section Harrow	13'	2WD 75	0.119	1.00	Oct	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Custom Spread(Truck)	appl			1.00	Dec							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											0.9000	16.50	14.85	14.85
Custom Spread(Truck)	appl			1.00	Mar							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.2000	16.50	19.80	19.80
Rotary Mower	12'	2WD 75	0.098	1.00	Jun	0.97	0.68	1.04	0.71	0.09	1.44				4.84
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Jun	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Weedmaster	pt											2.0000	3.00	6.00	6.00
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											2.1000	16.50	34.65	34.65
Prorated Est Cost	acre				Jun							1.0000			18.28
TOTALS						5.11	3.61	3.45	3.94	0.55	7.89			213.55	255.83
INTEREST ON OPERATING CAPITAL															3.08
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															258.91

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 21.B Estimated costs per acre
Overseeded annual ryegrass pasture maintenance,
Broadcast, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Phosphate (46% P2O5)	cwt	17.31	2.0000	34.62	_____
Potash (60% K2O)	cwt	22.11	1.5000	33.17	_____
Fert 33-0-0-12S	cwt	16.50	4.2000	69.30	_____
HERBICIDE					
Weedmaster	pt	3.00	2.0000	6.00	_____
SEED/PLANTS					
Ryegrass Seed	lb	0.80	30.0000	24.00	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	3.0000	22.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM PLANT					
Custom Spread + Seed	appl	5.00	1.0000	5.00	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.5188	7.61	_____
HAND LABOR					
Implements	hour	9.06	0.0313	0.28	_____
DIESEL FUEL					
Tractors	gal	2.23	2.0030	4.48	_____
REPAIR & MAINTENANCE					
Implements	acre	3.45	1.0000	3.45	_____
Tractors	acre	0.63	1.0000	0.63	_____
INTEREST ON OP. CAP.	acre	3.08	1.0000	3.08	_____
TOTAL DIRECT EXPENSES				233.08	_____
FIXED EXPENSES					
Implements	acre	3.94	1.0000	3.94	_____
Tractors	acre	3.61	1.0000	3.61	_____
Prorated Est Cost	acre	18.28	1.0000	18.28	_____
TOTAL FIXED EXPENSES				25.83	_____
TOTAL SPECIFIED EXPENSES				258.91	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 22.A Estimated resource use and costs for field operations, per acre
Sorghum x Sudan (SS), Pearl Millet (PM),
Forage Sorghum (FS) annual hay, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Apr							0.3300	47.45	15.66	15.66
Chisel Plow	15'	2WD 75	0.130	1.00	Apr	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Disk Harrow	14'	2WD 75	0.140	2.00	Apr	2.76	1.96	2.06	4.20	0.28	4.12				15.10
Custom Spread(Truck)	appl			1.00	Apr							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Grain Drill	12'	2WD 75	0.157	1.00	May	1.54	1.10	1.66	3.05	0.31	3.73				11.08
SS, PM, FS Seed	lb											30.0000	0.99	29.70	29.70
Spray (Broadcast)	27'	2WD 75	0.062	1.00	May	0.62	0.44	0.22	0.25	0.09	1.20				2.73
2,4-D amine	pt											1.5000	2.25	3.38	3.38
Hay Cut-Cond	9'	2WD 75	0.229	1.00	Jun	2.25	1.60	3.94	4.28	0.22	3.36				15.43
Hay Rake	8.5'	2WD 50	0.202	2.00	Jun	2.59	1.59	1.30	1.76	0.40	5.94				13.18
Hay Baler	Lg Round	2WD 75	0.211	1.00	Jun	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0800	25.00	2.00	2.00
Hay Mover	1B Lift	2WD 75	0.300	1.00	Jun	2.94	2.09	0.05	0.10	0.30	4.40				9.58
Custom Spread(Truck)	appl			1.00	Jun							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Hay Cut-Cond	9'	2WD 75	0.229	1.00	Jul	2.25	1.60	3.94	4.28	0.22	3.36				15.43
Hay Rake	8.5'	2WD 50	0.202	2.00	Jul	2.59	1.59	1.30	1.76	0.40	5.94				13.18
Hay Baler	Lg Round	2WD 75	0.211	1.00	Jul	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0600	25.00	1.50	1.50
Hay Mover	1B Lift	2WD 75	0.300	1.00	Jul	2.94	2.09	0.05	0.10	0.30	4.40				9.58
Custom Spread(Truck)	appl			1.00	Aug							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.5000	16.50	24.75	24.75
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Hay Cut-Cond	9'	2WD 75	0.229	1.00	Aug	2.25	1.60	3.94	4.28	0.22	3.36				15.43
Hay Rake	8.5'	2WD 50	0.202	2.00	Aug	2.59	1.59	1.30	1.76	0.40	5.94				13.18
Hay Baler	Lg Round	2WD 75	0.211	1.00	Aug	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0400	25.00	1.00	1.00
Hay Mover	1B Lift	2WD 75	0.300	1.00	Aug	2.94	2.09	0.05	0.10	0.30	4.40				9.58
Hay Cut-Cond	9'	2WD 75	0.229	1.00	Sep	2.25	1.60	3.94	4.28	0.22	3.36				15.43
Hay Rake	8.5'	2WD 50	0.202	2.00	Sep	2.59	1.59	1.30	1.76	0.40	5.94				13.18
Hay Baler	Lg Round	2WD 75	0.211	1.00	Sep	2.07	1.48	5.81	7.00	0.21	3.11				19.47
Twine	bun											0.0300	25.00	0.75	0.75
Hay Mover	1B Lift	2WD 75	0.300	1.00	Sep	2.94	2.09	0.05	0.10	0.30	4.40				9.58
TOTALS						45.61	31.45	48.96	61.10	5.40	78.21			215.57	480.90
INTEREST ON OPERATING CAPITAL															7.47
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															488.37

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.
2,4-D applied when sorghum/sudan is 4 to 6 inches tall.

Table 22.B Estimated costs per acre
 Sorghum x Sudan (SS), Pearl Millet (PM),
 Forage Sorghum (FS) annual hay, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	4.5000	74.25	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	2.0000	44.22	_____
HERBICIDE					
2,4-D amine	pt	2.25	1.5000	3.38	_____
SEED/PLANTS					
SS, PM, FS Seed	lb	0.99	30.0000	29.70	_____
OTHER					
Twine	bun	25.00	0.2100	5.25	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	3.0000	22.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	5.2119	76.51	_____
HAND LABOR					
Implements	hour	9.06	0.1884	1.70	_____
DIESEL FUEL					
Tractors	gal	2.23	18.0384	40.20	_____
REPAIR & MAINTENANCE					
Implements	acre	48.96	1.0000	48.96	_____
Tractors	acre	5.41	1.0000	5.41	_____
INTEREST ON OP. CAP.	acre	7.47	1.0000	7.47	_____
TOTAL DIRECT EXPENSES				395.82	_____
FIXED EXPENSES					
Implements	acre	61.10	1.0000	61.10	_____
Tractors	acre	31.45	1.0000	31.45	_____
TOTAL FIXED EXPENSES				92.55	_____
TOTAL SPECIFIED EXPENSES				488.37	_____

Note: Cost of production estimates are based on 2020 input prices.

**Fertilization decisions should be based on soil test recommendations.
 2,4-D applied when sorghum/sudan is 4 to 6 inches tall.**

Table 23.A Estimated resource use and costs for field operations, per acre
Sorghum x Sudan (SS), Pearl Millet (PM),
Forage Sorghum (FS) annual pasture, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Apr							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Apr							0.3300	47.45	15.66	15.66
Chisel Plow	15'	2WD 75	0.130	1.00	Apr	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Custom Spread(Truck)	appl			1.00	May							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Disk Harrow	14'	2WD 75	0.140	2.00	May	2.76	1.96	2.06	4.20	0.28	4.12				15.10
Spray (Broadcast)	27'	2WD 75	0.062	1.00	May	0.62	0.44	0.22	0.25	0.09	1.20				2.73
2,4-D amine	pt											1.5000	2.25	3.38	3.38
Grain Drill	12'	2WD 75	0.157	1.00	May	1.54	1.10	1.66	3.05	0.31	3.73				11.08
SS, PM, FS Seed	lb											30.0000	0.99	29.70	29.70
Custom Spread(Truck)	appl			1.00	Jul							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Custom Spread(Truck)	appl			1.00	Aug							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
TOTALS						6.21	4.41	4.56	8.54	0.81	10.97			163.46	198.15
INTEREST ON OPERATING CAPITAL															4.02
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															202.17

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.
2,4-D applied when sorghum/sudan is 4 to 6 inches tall.

Table 23.B Estimated costs per acre
Sorghum x Sudan (SS), Pearl Millet (PM),
Forage Sorghum (FS) annual pasture, Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	3.0000	49.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
HERBICIDE					
2,4-D amine	pt	2.25	1.5000	3.38	_____
SEED/PLANTS					
SS, PM, FS Seed	lb	0.99	30.0000	29.70	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	3.0000	22.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.6313	9.27	_____
HAND LABOR					
Implements	hour	9.06	0.1884	1.70	_____
DIESEL FUEL					
Tractors	gal	2.23	2.4374	5.44	_____
REPAIR & MAINTENANCE					
Implements	acre	4.56	1.0000	4.56	_____
Tractors	acre	0.77	1.0000	0.77	_____
INTEREST ON OP. CAP.	acre	4.02	1.0000	4.02	_____
TOTAL DIRECT EXPENSES				189.22	_____
FIXED EXPENSES					
Implements	acre	8.54	1.0000	8.54	_____
Tractors	acre	4.41	1.0000	4.41	_____
TOTAL FIXED EXPENSES				12.95	_____
TOTAL SPECIFIED EXPENSES				202.17	_____

Note: Cost of production estimates are based on 2020 input prices.

**Fertilization decisions should be based on soil test recommendations.
2,4-D applied when sorghum/sudan is 4 to 6 inches tall.**

Table 24.A Estimated resource use and costs for field operations, per acre
 Corn silage
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Lime (Spread)	ton			1.00	Sep							0.5000	47.45	23.73	23.73
Chisel Plow	15'	2WD 75	0.130	1.00	Sep	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Disk Harrow	14'	2WD 75	0.140	1.00	Mar	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Spin Spreader	5 Ton	2WD 75	0.042	1.00	Mar	0.41	0.29	0.27	0.53	0.08	1.00				2.50
Fert 33-0-0-12S	cwt											1.8000	16.50	29.70	29.70
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											2.0000	22.11	44.22	44.22
Disk Bed (Hipper)	4R-38	2WD 75	0.147	1.00	Mar	1.45	1.03	0.39	0.99	0.14	2.17				6.03
Row Cond	13'	2WD 75	0.119	1.00	Mar	1.17	0.83	0.78	1.10	0.11	1.75				5.63
Plant & Pre Rigid	4R-38	2WD 75	0.153	1.00	Mar	1.50	1.07	1.88	3.46	0.30	3.65				11.56
Atrazine 4L	pt											2.5000	1.91	4.77	4.77
Dual II Magnum	pt											1.3300	13.98	18.59	18.59
Corn Seed RR2	thous											22.0000	3.03	66.66	66.66
Fert Appl (Liquid)	4R-38	2WD 75	0.154	1.00	Apr	1.52	1.08	1.57	1.71	0.23	2.97				8.85
UAN (32% N)	cwt											4.0000	12.03	48.12	48.12
Spray (Spot)	27'	2WD 75	0.062	1.00	May	0.62	0.44	0.22	0.25	0.09	1.20				2.73
Accent SP 75%	oz											0.6700	31.94	21.40	21.40
Cultivate (Late)	4R-40	2WD 75	0.124	1.00	Jun	1.22	0.86	0.23	0.35	0.12	1.82				4.48
Silage Harvester	2-Row	2WD 75	0.510	1.00	Aug	5.00	3.56	15.24	16.53	0.51	7.49				47.82
Silage Wagon 12T	12-Ton	2WD 75	0.510	1.00	Aug	5.00	3.56	2.31	4.97	0.51	7.49				23.33
TOTALS						20.56	14.61	24.54	33.03	2.40	33.52			274.50	400.76
INTEREST ON OPERATING CAPITAL															2.25
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															403.01

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 24.B Estimated costs per acre
Corn silage
Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	1.8000	29.70	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	2.0000	44.22	_____
UAN (32% N)	cwt	12.03	4.0000	48.12	_____
HERBICIDE					
Atrazine 4L	pt	1.91	2.5000	4.77	_____
Dual II Magnum	pt	13.98	1.3300	18.59	_____
Accent SP 75%	oz	31.94	0.6700	21.40	_____
SEED/PLANTS					
Corn Seed RR2	thous	3.03	22.0000	66.66	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.5000	23.73	_____
OPERATOR LABOR					
Tractors	hour	14.68	2.0959	30.77	_____
HAND LABOR					
Implements	hour	9.06	0.3045	2.75	_____
DIESEL FUEL					
Tractors	gal	2.23	8.0912	18.04	_____
REPAIR & MAINTENANCE					
Implements	acre	24.54	1.0000	24.54	_____
Tractors	acre	2.52	1.0000	2.52	_____
INTEREST ON OP. CAP.	acre	2.25	1.0000	2.25	_____

TOTAL DIRECT EXPENSES				355.37	_____
FIXED EXPENSES					
Implements	acre	33.03	1.0000	33.03	_____
Tractors	acre	14.61	1.0000	14.61	_____

TOTAL FIXED EXPENSES				47.64	_____

TOTAL SPECIFIED EXPENSES				403.01	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 25.A Estimated resource use and costs for field operations, per acre
Sorghum silage
Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Lime (Spread)	ton			1.00	Sep							0.5000	47.45	23.73	23.73
Chisel Plow	15'	2WD 75	0.130	2.00	Apr	2.56	1.83	1.25	2.08	0.26	3.84				11.56
Spin Spreader	5 Ton	2WD 75	0.042	1.00	May	0.41	0.29	0.27	0.53	0.08	1.00				2.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.5000	17.31	25.96	25.96
Potash (60% K2O)	cwt											2.0000	22.11	44.22	44.22
Field Cultivate	12'	2WD 75	0.124	1.00	May	1.22	0.87	0.38	1.56	0.12	1.83				5.86
Disk Bed (Hipper)	4R-38	2WD 75	0.147	1.00	May	1.45	1.03	0.39	0.99	0.14	2.17				6.03
Row Cond	13'	2WD 75	0.119	1.00	May	1.17	0.83	0.78	1.10	0.11	1.75				5.63
Plant & Pre Rigid	4R-38	2WD 75	0.153	1.00	May	1.50	1.07	1.88	3.46	0.30	3.65				11.56
Forage Sorghum Seed	lb											6.0000	0.86	5.16	5.16
Bicep 11 Magnum	qt											2.0000	11.80	23.60	23.60
Cultivate	4R-38	2WD 75	0.162	1.00	May	1.59	1.13	0.61	1.57	0.16	2.38				7.28
Spin Spreader	5 Ton	2WD 75	0.042	1.00	May	0.41	0.29	0.27	0.53	0.08	1.00				2.50
Fert 33-0-0-12S	cwt											3.0000	16.50	49.50	49.50
Cultivate	4R-38	2WD 75	0.162	1.00	Jun	1.59	1.13	0.61	1.57	0.16	2.38				7.28
Silage Harvester	2-Row	2WD 75	0.510	1.00	Sep	5.00	3.56	15.24	16.53	0.51	7.49				47.82
Silage Wagon 12T	12-Ton	2WD 75	0.510	1.00	Sep	5.00	3.56	2.31	4.97	0.51	7.49				23.33
TOTALS						21.90	15.59	23.99	34.89	2.47	34.98			188.67	320.02
INTEREST ON OPERATING CAPITAL															1.79
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															321.81

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 25.B Estimated costs per acre
Sorghum silage
Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	4.0000	66.00	_____
Phosphate (46% P2O5)	cwt	17.31	1.5000	25.96	_____
Potash (60% K2O)	cwt	22.11	2.0000	44.22	_____
HERBICIDE					
Bicep 11 Magnum	qt	11.80	2.0000	23.60	_____
SEED/PLANTS					
Forage Sorghum Seed	lb	0.86	6.0000	5.16	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.5000	23.73	_____
OPERATOR LABOR					
Tractors	hour	14.68	2.2365	32.83	_____
HAND LABOR					
Implements	hour	9.06	0.2379	2.15	_____
DIESEL FUEL					
Tractors	gal	2.23	8.6340	19.24	_____
REPAIR & MAINTENANCE					
Implements	acre	23.99	1.0000	23.99	_____
Tractors	acre	2.66	1.0000	2.66	_____
INTEREST ON OP. CAP.	acre	1.79	1.0000	1.79	_____
TOTAL DIRECT EXPENSES				271.33	_____
FIXED EXPENSES					
Implements	acre	34.89	1.0000	34.89	_____
Tractors	acre	15.59	1.0000	15.59	_____
TOTAL FIXED EXPENSES				50.48	_____
TOTAL SPECIFIED EXPENSES				321.81	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations

Table 26.A Estimated resource use and costs for field operations, per acre
 Ryegrass, Small Grains (oat, cereal rye, triticale),
 Annual Clover, Brassica mix annual pasture, prepared seedbed, Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			0.33	Aug							0.3300	47.45	15.66	15.66
Chisel Plow	15'	2WD 75	0.130	1.00	Aug	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Disk Harrow	14'	2WD 75	0.140	1.00	Aug	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Custom Spread(Truck)	appl			1.00	Sep							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Section Harrow	13'	2WD 75	0.119	1.00	Sep	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Grain Drill	12'	2WD 75	0.157	1.00	Sep	1.54	1.10	1.66	3.05	0.31	3.73				11.08
Ryegrass Seed	lb											18.0000	0.80	14.40	14.40
Small Grains Seed	lb											60.0000	0.59	35.40	35.40
Brassica Seed	lb											2.0000	2.99	5.98	5.98
Crimson Clover Seed	lb											15.0000	1.13	16.95	16.95
TOTALS						5.38	3.82	3.43	6.36	0.70	9.46			155.11	183.56
INTEREST ON OPERATING CAPITAL															3.88
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															187.44

Note: Cost of production estimates are based on 2020 input prices.
Fertilization decisions should be based on soil test recommendations.

Table 26.B Estimated costs per acre
 Ryegrass, Small Grains (oat, cereal rye, triticale),
 Annual Clover, Brassica mix annual pasture, prepared seedbed,
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	1.0000	16.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
SEED/PLANTS					
Ryegrass Seed	lb	0.80	18.0000	14.40	_____
Small Grains Seed	lb	0.59	60.0000	35.40	_____
Brassica Seed	lb	2.99	2.0000	5.98	_____
Crimson Clover Seed	lb	1.13	15.0000	16.95	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	1.0000	7.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.5478	8.04	_____
HAND LABOR					
Implements	hour	9.06	0.1571	1.42	_____
DIESEL FUEL					
Tractors	gal	2.23	2.1149	4.72	_____
REPAIR & MAINTENANCE					
Implements	acre	3.43	1.0000	3.43	_____
Tractors	acre	0.66	1.0000	0.66	_____
INTEREST ON OP. CAP.	acre	3.88	1.0000	3.88	_____

TOTAL DIRECT EXPENSES				177.26	_____
FIXED EXPENSES					
Implements	acre	6.36	1.0000	6.36	_____
Tractors	acre	3.82	1.0000	3.82	_____

TOTAL FIXED EXPENSES				10.18	_____

TOTAL SPECIFIED EXPENSES				187.44	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 27.A Estimated resource use and costs for field operations, per acre
 Ryegrass-Oat annual pasture, prepared seedbed
 Mississippi, 2022

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Soil Testing	acre			0.33	Aug							0.3300	10.00	3.30	3.30
Lime (Spread)	ton			1.00	Aug							0.3300	47.45	15.66	15.66
Chisel Plow	15'	2WD 75	0.130	1.00	Aug	1.29	0.91	0.62	1.04	0.13	1.92				5.78
Disk Harrow	14'	2WD 75	0.140	1.00	Aug	1.38	0.98	1.03	2.10	0.14	2.06				7.55
Custom Spread(Truck)	appl			1.00	Sep							1.0000	7.50	7.50	7.50
Fert 33-0-0-12S	cwt											1.0000	16.50	16.50	16.50
Phosphate (46% P2O5)	cwt											1.0000	17.31	17.31	17.31
Potash (60% K2O)	cwt											1.0000	22.11	22.11	22.11
Section Harrow	13'	2WD 75	0.119	1.00	Sep	1.17	0.83	0.12	0.17	0.11	1.75				4.04
Grain Drill	12'	2WD 75	0.157	1.00	Sep	1.54	1.10	1.66	3.05	0.31	3.73				11.08
Ryegrass Seed	lb											20.0000	0.80	16.00	16.00
Small Grains Seed	lb											20.0000	0.59	11.80	11.80
Spray (Broadcast)	27'	2WD 75	0.062	1.00	Mar	0.62	0.44	0.22	0.25	0.09	1.20				2.73
2,4-D amine	pt											1.5000	2.25	3.38	3.38
TOTALS						6.00	4.26	3.65	6.61	0.79	10.66			113.56	144.74
INTEREST ON OPERATING CAPITAL															3.12
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															147.86

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Table 27.B Estimated costs per acre
 Ryegrass-Oat annual pasture, prepared seedbed
 Mississippi, 2022

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZER					
Fert 33-0-0-12S	cwt	16.50	1.0000	16.50	_____
Phosphate (46% P2O5)	cwt	17.31	1.0000	17.31	_____
Potash (60% K2O)	cwt	22.11	1.0000	22.11	_____
HERBICIDE					
2,4-D amine	pt	2.25	1.5000	3.38	_____
SEED/PLANTS					
Ryegrass Seed	lb	0.80	20.0000	16.00	_____
Small Grains Seed	lb	0.59	20.0000	11.80	_____
CUSTOM FERT					
Custom Spread(Truck)	appl	7.50	1.0000	7.50	_____
SERVICE FEE					
Soil Testing	acre	10.00	0.3300	3.30	_____
CUSTOM LIME					
Lime (Spread)	ton	47.45	0.3300	15.66	_____
OPERATOR LABOR					
Tractors	hour	14.68	0.6105	8.96	_____
HAND LABOR					
Implements	hour	9.06	0.1884	1.70	_____
DIESEL FUEL					
Tractors	gal	2.23	2.3569	5.26	_____
REPAIR & MAINTENANCE					
Implements	acre	3.65	1.0000	3.65	_____
Tractors	acre	0.74	1.0000	0.74	_____
INTEREST ON OP. CAP.	acre	3.12	1.0000	3.12	_____
TOTAL DIRECT EXPENSES				136.99	_____
FIXED EXPENSES					
Implements	acre	6.61	1.0000	6.61	_____
Tractors	acre	4.26	1.0000	4.26	_____
TOTAL FIXED EXPENSES				10.87	_____
TOTAL SPECIFIED EXPENSES				147.86	_____

Note: Cost of production estimates are based on 2020 input prices.

Fertilization decisions should be based on soil test recommendations.

Appendix

Appendix Table 1. Tractors/Harvesters: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Mississippi, 2022

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	-----\$/hour-----					
Tractor (40-59hp)CAB	2WD 50	30,900	600	8	2.57	14.68	5.73	0.96	21.38	5.61	26.99
Tractor (40-59hp)CAB	MFWD 50	41,400	600	8	2.57	14.68	5.73	1.29	21.71	7.51	29.23
Tractor (40-59hp)RB	2WD 50	21,700	600	8	2.57	14.68	5.73	0.67	21.09	3.94	25.03
Tractor (40-59hp)RB	MFWD 50	27,200	600	8	2.57	14.68	5.73	0.85	21.26	4.93	26.20
Tractor (60-89hp)CAB	2WD 75	53,200	600	8	3.86	14.68	8.60	1.66	24.95	9.66	34.61
Tractor (60-89hp)CAB	MFWD 75	57,600	600	8	3.86	14.68	8.60	1.80	25.08	10.46	35.54
Tractor (60-89hp)RB	2WD 75	38,400	600	8	3.86	14.68	8.60	1.20	24.48	6.97	31.46
Tractor (60-89hp)RB	MFWD 75	41,800	600	8	3.86	14.68	8.60	1.30	24.59	7.59	32.18
Tractor (90-119hp)CB	2WD 105	71,200	600	8	5.40	14.68	12.05	2.22	28.95	12.93	41.88
Tractor (90-119hp)CB	MFWD 105	91,700	600	8	5.40	14.68	12.05	2.86	29.59	16.65	46.25
Tractor (90-119hp)RB	2WD 105	64,600	600	8	5.40	14.68	12.05	2.01	28.75	11.73	40.48
Tractor (90-119hp)RB	MFWD 105	71,900	600	8	5.40	14.68	12.05	2.24	28.97	13.05	42.03
Tractor (120-139hp)CB	2WD 130	113,000	600	8	6.69	14.68	14.92	3.53	33.13	20.52	53.65
Tractor (120-139hp)CB	MFWD 130	126,000	600	8	6.69	14.68	14.92	3.93	33.53	22.88	56.42
Tractor (140-159hp)CB	2WD 150	111,000	600	8	7.72	14.68	17.21	3.46	35.36	20.15	55.52
Tractor (140-159hp)CB	MFWD 150	143,000	600	8	7.72	14.68	17.21	4.46	36.36	25.97	62.33

Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

Appendix Table 2 Implements: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Mississippi, 2022

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M--- Imp. P.U.		Total Direct	--Fixed-- Imp. P.U.		Total Cost
			dollars	hours	years	hr/ac	-----\$/acre-----							
Chisel Plow	15'	2WD 130	13,200	150	12	0.130	1.92	1.95	0.62	0.46	4.96	1.04	2.68	8.69
Cult & Post	4R-38	2WD 105	21,600	150	10	0.162	3.11	1.95	0.93	0.32	6.34	2.38	1.90	10.63
Cult & Post	6R-30	MFWD 150	25,900	150	10	0.137	2.64	2.36	0.94	0.61	6.57	2.42	3.57	12.56
Cult & Post	6R-38	MFWD 150	26,600	150	10	0.108	2.08	1.86	0.76	0.48	5.20	1.96	2.81	9.99
Cult & Post	8R-30	MFWD 150	31,200	150	10	0.103	1.98	1.77	0.85	0.46	5.07	2.18	2.67	9.94
Multipacker	12'	2WD 105	6,723	300	12	0.124	1.82	1.49	0.19	0.25	3.77	0.26	1.45	5.49
Multipacker	20'	MFWD 150	10,864	300	12	0.074	1.09	1.28	0.19	0.33	2.90	0.25	1.93	5.09
Cultivate	4R-38	2WD 105	14,200	150	10	0.162	2.38	1.95	0.61	0.32	5.28	1.56	1.90	8.75
Cultivate	6R-30	MFWD 150	18,500	150	10	0.137	2.01	2.36	0.67	0.61	5.67	1.72	3.57	10.97
Cultivate	6R-38	MFWD 150	19,300	150	10	0.108	1.59	1.86	0.55	0.48	4.50	1.42	2.81	8.74
Cultivate	8R-30	MFWD 150	23,800	150	10	0.103	1.51	1.77	0.65	0.46	4.40	1.66	2.67	8.75
Cyclone Spin	750Lb	2WD 105	1,530	50	8	0.200	3.84	2.41	0.22	0.40	6.88	0.82	2.34	10.06
Disk & Incorporate	14'	2WD 130	33,700	200	10	0.147	2.83	2.19	1.48	0.52	7.03	2.53	3.02	12.59
Disk & Incorporate	24'	MFWD 150	53,600	200	10	0.085	1.65	1.47	1.38	0.38	4.89	2.34	2.23	9.47
Disk & Incorporate	32'	MFWD 150	68,700	200	10	0.064	1.23	1.10	1.32	0.28	3.96	2.25	1.67	7.89
Disk Bed (Hipper)	4R-38	MFWD 150	10,500	160	10	0.147	2.16	2.54	0.38	0.65	5.75	0.98	3.83	10.57
Disk Bed (Hipper)	6R-38	MFWD 150	16,200	160	10	0.098	1.44	1.69	0.39	0.44	3.98	1.01	2.56	7.56
Disk Bed (Hipper)	6R-38	2WD 50	16,200	160	10	0.125	1.83	0.71	0.50	0.08	3.14	1.29	0.49	4.92
Disk Bed (Hipper)	8R-30	MFWD 150	20,800	160	10	0.093	1.37	1.61	0.48	0.41	3.89	1.24	2.43	7.57
Disk Harrow	14'	2WD 130	26,400	180	10	0.140	2.05	2.09	1.02	0.49	5.67	2.09	2.87	10.65
Disk Harrow	24'	MFWD 150	46,200	180	10	0.081	1.20	1.40	1.05	0.36	4.02	2.14	2.12	8.29
Disk Harrow	32'	MFWD 150	61,400	180	10	0.061	0.90	1.05	1.04	0.27	3.27	2.13	1.59	7.00
Fert Appl (Liquid)	4R-38	MFWD 150	15,200	150	8	0.154	2.97	2.66	1.56	0.69	7.89	1.70	4.01	13.61
Fert Appl (Liquid)	6R-30	MFWD 150	17,900	150	8	0.130	2.51	2.25	1.56	0.58	6.91	1.70	3.40	12.02
Fert Appl (Liquid)	6R-38	MFWD 150	17,900	150	8	0.103	1.98	1.77	1.23	0.46	5.46	1.34	2.68	9.49
Fert Appl (Liquid)	8R-30	MFWD 150	18,600	150	8	0.098	1.88	1.69	1.21	0.43	5.23	1.32	2.55	9.11
Field Cult & Inc	12'	2WD 150	19,600	100	10	0.124	2.39	2.14	0.60	0.43	5.57	2.48	2.50	10.56
Field Cult & Inc	24'	MFWD 150	38,500	100	10	0.062	1.19	1.07	0.59	0.27	3.14	2.44	1.61	7.20
Field Cultivate	12'	2WD 150	12,300	100	10	0.124	1.82	2.14	0.38	0.43	4.78	1.56	2.50	8.85
Field Cultivate	24'	MFWD 150	31,100	100	10	0.062	0.91	1.07	0.48	0.27	2.74	1.97	1.61	6.33
Front Loader	.5 yd	2WD 75	5,690	100	10	0.120	1.76	1.03	0.40	0.14	3.34	0.77	0.83	4.96
Grain Drill	12'	2WD 130	28,100	150	8	0.157	3.73	2.34	1.65	0.55	8.28	3.05	3.22	14.56
Hay Baler	Lg Round	2WD 105	48,833	200	8	0.211	3.10	2.54	5.81	0.42	11.89	7.00	2.48	21.37
Hay Baler	Med Rnd	2WD 75	34,947	200	8	0.211	3.10	1.82	4.15	0.25	9.33	5.01	1.47	15.82
Hay Baler	Square	2WD 50	27,025	200	8	0.229	3.36	1.31	3.09	0.15	7.93	4.19	0.90	13.03
Hay Cut-Cond	9'	2WD 105	27,528	200	8	0.229	3.36	2.76	3.94	0.46	10.53	4.27	2.68	17.49
Hay Cut-Cond	12'	2WD 105	36,677	200	8	0.171	2.52	2.07	3.94	0.34	8.88	4.27	2.01	15.17
Hay Disc Mower	8'	2WD 75	11,143	200	8	0.257	3.78	2.21	1.79	0.30	8.10	1.94	1.79	11.85
Hay Disc Mower	10'	2WD 50	12,885	200	8	0.206	3.02	1.18	1.66	0.13	6.01	1.80	0.81	8.62
Hay Mover	1B Lift	2WD 50	603	200	10	0.300	4.40	1.72	0.04	0.20	6.37	0.10	1.18	7.65
Hay Rake	8.5'	2WD 50	6,422	200	8	0.202	2.96	1.16	0.64	0.13	4.91	0.88	0.79	6.59
Hay Rake-Double	17'	2WD 75	7,072	200	8	0.101	1.48	0.87	0.35	0.12	2.83	0.48	0.70	4.02
Hay Tedder	17'	2WD 105	8,072	200	8	0.101	1.48	1.21	0.40	0.20	3.31	0.55	1.18	5.05
Hay Trailer	20'	2WD 75	4,570	200	15	0.090	1.32	0.77	0.10	0.10	2.31	0.17	0.62	3.11
NT Grain Drill	12'	2WD 130	46,600	150	8	0.196	4.66	2.93	3.43	0.69	11.72	6.32	4.03	22.07
NT Plant & Pre Rigid	4R-38	2WD 130	36,000	150	8	0.153	3.65	2.29	2.07	0.54	8.56	3.82	3.15	15.54
NT Plant & Pre Rigid	6R-30	MFWD 150	44,300	150	8	0.130	3.09	2.24	2.16	0.58	8.07	3.98	3.38	15.44
NT Plant & Pre Rigid	6R-38	MFWD 150	43,500	150	8	0.102	2.43	1.76	1.67	0.45	6.34	3.08	2.66	12.10
NT Plant Rigid	4R-38	2WD 130	28,600	150	8	0.148	3.51	2.20	1.58	0.52	7.83	2.92	3.03	13.79
NT Plant Rigid	6R-30	MFWD 150	37,000	150	8	0.125	2.97	2.15	1.73	0.56	7.43	3.20	3.25	13.89
NT Plant Rigid	6R-38	MFWD 150	36,100	150	8	0.098	2.34	1.70	1.33	0.44	5.83	2.46	2.57	10.87
Plant & Pre Rigid	4R-38	2WD 130	32,600	150	8	0.153	3.65	2.29	1.87	0.54	8.36	3.46	3.15	14.98
Plant & Pre Rigid	6R-30	MFWD 150	39,300	150	8	0.126	2.99	2.17	1.86	0.56	7.59	3.42	3.27	14.30
Plant & Pre Rigid	6R-38	MFWD 150	38,500	150	8	0.102	2.43	1.76	1.48	0.45	6.15	2.73	2.66	11.55
Plant Rigid	4R-38	2WD 130	25,300	150	8	0.148	3.51	2.20	1.40	0.52	7.65	2.58	3.03	13.27
Plant Rigid	6R-30	MFWD 150	32,000	150	8	0.125	2.97	2.15	1.50	0.56	7.19	2.77	3.25	13.22
Plant Rigid	6R-38	MFWD 150	31,100	150	8	0.098	2.34	1.70	1.15	0.44	5.65	2.12	2.57	10.34
Rotary Mower	7'	MFWD 130	4,500	185	10	0.168	2.47	2.51	0.61	0.66	6.26	0.41	3.85	10.53
Rotary Mower	12'	2WD 150	13,100	185	10	0.098	1.44	1.69	1.04	0.34	4.51	0.70	1.97	7.20
Rotary Mower	15'	MFWD 150	22,100	185	10	0.078	1.15	1.35	1.40	0.35	4.26	0.95	2.04	7.26
Row Cond	13'	2WD 130	8,670	100	10	0.119	1.75	1.78	0.77	0.42	4.73	1.09	2.45	8.28
Row Cond	21'	2WD 150	14,200	100	10	0.078	1.15	1.35	0.27	0.27	3.05	1.13	1.58	5.77
Row Cond & Inc	13'	2WD 130	16,000	100	10	0.126	2.43	1.89	0.50	0.44	5.28	2.07	2.60	9.96
Row Cond & Inc	21'	2WD 150	21,600	100	10	0.078	1.50	1.35	0.42	0.27	3.55	1.73	1.58	6.87
Section Harrow	13'	2WD 105	2,845	200	10	0.119	1.75	1.43	0.11	0.24	3.55	0.17	1.40	5.12
Silage Harvester	2-Row	2WD 105	47,793	200	8	0.510	7.48	6.14	15.23	1.02	29.90	16.53	5.98	52.42
Silage Harvester 3-R	3-Row	2WD 105	53,507	200	8	0.336	4.94	4.05	11.26	0.74	21.01	12.21	4.35	37.58
Silage Wagon	10-Ton	2WD 75	11,838	200	15	0.510	7.48	4.39	1.20	0.61	13.70	2.59	3.55	19.85
Silage Wagon 12T	12-Ton	2WD 105	22,665	200	15	0.510	7.48	6.14	2.31	1.13	17.08	4.96	6.59	28.65
Spin Spreader	5 Ton	MFWD 150	11,600	100	8	0.042	0.99	0.72	0.27	0.18	2.18	0.53	1.09	3.81
Spray (Broadcast)	27'	MFWD 150	7,400	200	8	0.062	1.20	1.07	0.21	0.28	2.78	0.25	1.62	4.66
Spray (Spot)	27'	MFWD 150	7,400	200	8	0.062	1.20	1.07	0.21	0.28	2.78	0.25	1.62	4.66
Subsoiler	3 Shank	MFWD 150	6,360	100	15	0.020	0.29	0.35	0.04	0.09	0.78	0.10	0.53	1.41
Tailgate Seeder		2WD 50	1,411	100	8	0.200	2.93	1.14	0.35	0.13	4.57	0.38	0.78	5.74

Notes:

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

Total Direct: Does not include interest on operating capital.

Appendix Table 3. Operating inputs: estimated prices, Mississippi, 2022

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Dicamba	pt	5.50
Crop Oil (veg)	pt	2.90	Diuron 4L	pt	3.03
Surfactant	pt	3.30	Dual II Magnum	pt	13.98
CUSTOM FERT			Glyphosate 3lbs a.e.	pt	2.11
App Fert by Air	cwt	7.50	Gramoxone SL 2.0	oz	0.19
App Fert by Air (Min)	appl	7.50	Grazon P+D	pt	4.50
Custom Spread (Truck)	appl	7.50	GrazonNext	pt	9.69
CUSTOM LIME			Metribuzin 75	lb	18.30
Lime (Spread)	ton	47.45	Pendimethalin	pt	6.49
CUSTOM PLANT			Poast	pt	13.50
Custom Spread + Seed	appl	5.00	Poast Plus	pt	9.49
Custom Sprig	acre	100.00	Pusuit	oz	2.89
Plant by Air	cwt	7.50	Remedy Ultra	pt	11.55
CUSTOM SPRAY			Roundup Power Max	pt	4.00
App by Air (10 gal)	appl	9.00	Roundup Power Max	oz	0.25
App by Air (2 gal)	appl	3.00	Weedmaster	pt	3.00
App by Air (3 gal)	appl	5.50	INSECTICIDE		
App by Air (5 gal)	appl	7.00	Baythroid XL	oz	2.38
FERTILIZER			Lannate LV	pt	9.00
Boron Plus	gal	20.48	Mustang Max	oz	1.10
Fert 10-34-0	cwt	24.08	Sevin XLR Plus	qt	15.43
Fert 13-13-13	cwt	22.50	OTHER		
Fert 33-0-0-12S	cwt	16.50	Twine	bun	25.00
Phosphate (46% P2O5)	cwt	17.31	SEED/PLANTS		
Potash (60% K2O)	cwt	22.11	Alfalfa Seed	lb	4.56
UAN (32% N)	cwt	12.03	Bahagrass Seed	lb	2.38
UAN + Sulfur (28%)	cwt	14.49	Brassica Seed	lb	2.99
Urea, Solid (46% N)	cwt	19.74	Bermudagrass Seed	lb	4.50
HAUL			Corn Seed RR2	thous	3.03
Hay Haul (Conv)	ton	25.00	Crimson Clover Seed	lb	1.13
HERBICIDE			Dallisgrass Seed	lb	10.95
2,4-D amine	pt	2.25	Fescue Seed	lb	1.79
2,4-D ester	pt	2.68	Forage Sorghum Seed	lb	0.86
2,4-DB 200	pt	4.08	MaxQ Fescue Seed	lb	4.21
AAtrex 4L	pt	2.23	Millet Seed	lb	1.06
Accent SP 75%	oz	31.94	Red Clover Seed	lb	2.14
Atrazine 4L	pt	1.91	Ryegrass Seed	lb	0.80
Balan	lb	1.28	Small Grains Seed	lb	0.59
Banvel	pt	6.67	SS, PM, FS Seed	lb	0.99
Basagran	pt	5.43	SS, PM, Seed	lb	0.99
Bicep 1l Magnum	qt	11.80	Wheat Seed	lb	0.28
Blazer Ultra	pt	7.50	White Clover Seed	lb	4.49
Buctril 4EC	pt	4.28	SERVICE FEE		
Clethodim	oz	0.50	Soil Testing	acre	10.00

Appendix Table 4. Estimated fuel prices
and interest rates, Mississippi, 2022

ITEM NAME	UNIT	PRICE
dollars		
FUEL TYPES		
Diesel Fuel	gal	2.23
Gasoline	gal	2.48
INTEREST RATES		
Short-term	%	4.00
Intermediate-term	%	4.50

Appendix Table 5. Labor names, units and wage rates,
Mississippi, 2022.

Item name	Unit	Wage Rate
OPERATOR LABOR	hour	14.68
HAND LABOR	hour	9.06

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