

# **Projected Costs and Returns Crop Enterprise Budgets for Sorghum Production in Louisiana, 2021**

**Michael A. Deliberto and Brian M. Hilbun**



**Farm Management Research & Extension  
Department of Agricultural Economics & Agribusiness  
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# PROJECTED COSTS AND RETURNS CROP ENTERPRISE BUDGETS FOR SORGHUM PRODUCTION IN LOUISIANA, 2021

by

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## Introduction

This publication presents estimates of projected costs and returns for grain sorghum production in Louisiana for the 2021 crop year. Crop producers are annually faced with critical management decisions that impact the employment of production inputs for various crop enterprises and the combination of crops that will be assembled into a cropping system. The need for reliable information is crucial if sound production decisions are to be made. Planning information plays a pivotal role in the development of annual crop production plans by producers and is important in supporting their efforts to secure the necessary resources to carry out their plans. In addition, information regarding production alternatives and costs and returns for major crop enterprises is needed by extension personnel, researchers, lending institutions, and others involved in agriculture or agribusiness. The purpose of this report is to provide planning information regarding crop production costs and market returns for the 2021 crop year.

Crop enterprise budgets in this report are presented in two budget formats. The first budget format (table A) is a summary of costs and returns for the crop enterprise. The second budget format (table B) provides a table listing the sequence of production operations, indicating the equipment and

implements used, month of operation, labor required, machine time required, and materials used. Labor costs, material costs, custom costs, and direct and fixed costs for tractors and equipment are also included for each operation. All costs are summed giving the total cost per operation or practice. In addition, breakeven prices to cover direct production costs and total specified production costs are presented in tables C and D.

## Procedure

The general procedure used in this study was to project machinery and other input price data and apply these data to the production practice data for crop enterprises produced in Louisiana. Input prices were obtained from surveys of farm suppliers, machinery dealers, and aerial applicators to provide a basis for estimating 2021 planning budgets. Machinery and other input cost data are presented in the Appendix.

The budgets included in this report are categorized by per acre total direct expenses and per acre total fixed expenses for a production season. Within these two broad categories, the various inputs are itemized with their respective costs. Although a particular enterprise budget is presented on a per acre basis, some individual cost items are specified on an hourly or price per unit

basis. Direct expenses include such cost items as seed, fertilizer, chemicals, fuel, labor, repairs, and irrigation. Fixed expenses include such items as depreciation and interest on investment which are generally incurred during the production period.

Due to the detailed nature of the cost computations, a computerized budget generator procedure was utilized. The Mississippi State Budget Generator Program, developed at Mississippi State University, is utilized by the LSU Agricultural Center in developing these crop enterprise costs and returns budgets. The budget generator provides a standard format for crop and livestock budgets and this computational procedure is widely accepted for estimating projected commodity costs and returns information for upcoming crop year planning purposes.

### ***Expected Crop Yields and Market Prices***

Projected crop enterprise budgets in this report include a calculation of expected market returns for the crop. Expected crop yields and market prices are selected at the beginning of the crop year. Projected crop yields are determined based on recent production history for expected yield given normal weather conditions. Projected market prices are specified as expected marketing year average prices for the commodity, based on harvest time futures price quotes as well as other market information at the beginning of the crop year. No estimate of income from farm program participation or crop insurance is included in this budgets due to the wide variety of farm program and crop insurance choices available to producers.

### ***Direct Production Costs***

Direct or variable production costs were estimated by utilizing updated crop production input price data. Input price data for various crop production inputs were updated by obtaining prices from farm input suppliers in the fall and winter prior to the crop year. Herbicide, fertilizer, and insecticide expenditures for each enterprise budget are based upon the types of chemicals producers generally reported using for that situation. Suggested prices for selected farm inputs and aerial application rates are presented in the appendix.

Hired labor was charged at \$11.83 per hour for all classes of labor except for harvest machinery and laser leveling operator labor. This wage rate include a basic wage rate plus additional costs for social security, Medicare, and workman's compensation. Operator labor was charged at \$15.30 per hour, which includes a basic wage rate plus additional costs for social security, Medicare, and workman's compensation. The higher wage rate was charged for these classes of operators because of the relatively higher skills required to run these types of machinery and the general consensus that these operators are generally twelve month (salaried) employees i.e. foremen. Farm labor may not be generally available on an hourly basis; however, an hourly charge represents a practical method for charging labor to the respective crop enterprises on a per acre basis.

Interest on operating capital (short term) was charged at a nominal rate of 4.00% per year. Operating capital was assumed to be borrowed in a manner consistent with timely acquisition of inputs. Fuel price for diesel was \$1.73 per gallon. Variable costs for tractors, self-propelled

machinery, and irrigation machinery include the cost of fuel, lubrication, and repair.

The intermediate term interest rate was charged at an historical real rate of 4.50%. The reasoning behind the difference in short and intermediate term rates is that longer term nominal rates are highly variable and closely follow the trend set by the rate of inflation. Intermediate term interest rates above the real rate of interest can overstate true interest costs because they overlook the value gained by an asset due solely to inflation.

### ***Farm Machinery Costs***

Machinery cost data were obtained from a sample of machinery dealers. New machinery prices were used to reflect the economic cost of acquiring and maintaining capital assets in current dollar values. Purchase prices for selected power and machinery items included in this report are presented in the appendix. Other data included in the appendix indicate hours of annual use and years of life for each selected machinery item. Fuel consumption, accumulated repair costs, and other machinery performance data are based on ASAE standards. Machinery fixed costs are calculated using the capital recovery method which includes estimates of both annual depreciation and interest on investment.

### ***Overhead Costs***

Overhead costs reflect significant expenses associated with the operation of the entire farm business, but are not necessarily attributable to a specific crop enterprise. Examples of farm overhead costs include tax services, record keeping, utilities, farmstead maintenance, and insurance and property taxes where applicable. General farm overhead costs can

vary greatly from farm to farm based on many factors including farm size, land tenure and crop production technology utilized. A single general farm overhead charge is included in each crop enterprise budget included in this report. This single overhead charge is based on production cost data published by the Economic Research Service, USDA for major crops produced in this region of the United States.

### **Acknowledgments**

Several individuals were instrumental in making this report possible. The authors are particularly indebted to Louisiana crop producers and LSU Agricultural Center Extension Service agents and Experiment Station scientists for their cooperation and assistance in providing specific production practice information, as well as farm suppliers and agribusiness firms for supplying input price information.

### **Internet Access**

This publication, along with projected costs and returns reports for other major agricultural crop commodities produced in Louisiana, as well as other farm management publications, are available on the Internet on the LSU AgCenter web page under the “*Extension and Outreach*” section of the Department of Agricultural Economics and Agribusiness web page. These projected costs and returns reports are also available on the LSU Ag Center crop commodities web pages. The web address for the LSU AgCenter is: [www.lsuagcenter.com](http://www.lsuagcenter.com)

Table 1.A Estimated costs per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2021.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	7.00	1.5000	10.50	_____
App by Air ( 3 gal)	appl	5.50	2.0000	11.00	_____
FERTILIZERS					
LA Nitrogen	lb	0.38	110.0000	41.80	_____
LA Phosphate	lb	0.39	40.0000	15.60	_____
LA Potash	lb	0.28	40.0000	11.20	_____
FUNGICIDES					
Cruiser 5FS	oz	0.90	1.2800	1.15	_____
Quadris	oz	0.94	6.0000	5.64	_____
HERBICIDES					
Roundup WeatherMax	oz	0.19	55.0000	10.45	_____
2,4-D Amine 4	pt	1.85	2.0000	3.70	_____
Atrazine 4L	pt	1.50	4.0000	6.00	_____
Dual II Magnum	pt	14.56	1.0000	14.56	_____
INSECTICIDES					
Karate Z	oz	1.00	2.1300	2.13	_____
Belt	oz	7.00	2.5000	17.50	_____
Transform	oz	7.81	1.0000	7.81	_____
Sivanto	oz	2.50	4.0000	10.00	_____
SEED/PLANTS					
Sorghum Concept	lb	2.64	6.0000	15.84	_____
SERVICE FEE					
Lime (Spread)	ton	38.00	0.3300	12.54	_____
Digital Ag Fee	acre	8.50	1.0000	8.50	_____
CUSTOM HARVEST/HAUL					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
OPERATOR LABOR					
Harvesters	hour	15.30	0.0851	1.30	_____
LA Hired Labor					
Implements	hour	11.83	0.1190	1.41	_____
Tractors	hour	11.83	0.4011	4.76	_____
DIESEL FUEL					
Tractors	gal	1.73	3.4993	6.05	_____
Harvesters	gal	1.73	1.2047	2.08	_____
REPAIR & MAINTENANCE					
Implements	Acre	5.83	1.0000	5.83	_____
Tractors	Acre	2.04	1.0000	2.04	_____
Harvesters	Acre	3.12	1.0000	3.12	_____
INTEREST ON OP. CAP.	Acre	5.32	1.0000	5.32	_____
TOTAL DIRECT EXPENSES				262.83	_____
FIXED EXPENSES					
Implements	Acre	7.77	1.0000	7.77	_____
Tractors	Acre	12.30	1.0000	12.30	_____
Harvesters	Acre	11.95	1.0000	11.95	_____
TOTAL FIXED EXPENSES				32.02	_____
TOTAL SPECIFIED EXPENSES				294.85	_____



Table 1.B Estimated resource use and costs for field operations, per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2021.

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			0.33	Oct							0.3300	38.00	12.54	12.54
Disk Bed (Hipper)Rdg	8R-38	MFWD 190	0.074	1.00	Oct	1.69	2.67	0.36	0.93	0.07	0.88				6.53
Roller	32'	MFWD 170	0.046	1.00	Oct	0.94	1.42	0.18	0.96	0.04	0.55				4.05
Ditcher		2WD 130	0.020	1.00	Oct	0.30	0.41	0.05	0.06	0.02	0.24				1.06
App by Air ( 5 gal)	appl			1.00	Mar							1.0000	7.00	7.00	7.00
Roundup WeatherMax	oz											22.0000	0.19	4.18	4.18
2,4-D Amine 4	pt											2.0000	1.85	3.70	3.70
Ditcher		2WD 130	0.020	1.00	Apr	0.30	0.41	0.05	0.06	0.02	0.24				1.06
Plant & Pre Rigid	8R-38	MFWD 170	0.080	1.00	Apr	1.62	2.45	1.38	2.53	0.16	1.90				9.88
Sorghum Concept	lb											6.0000	2.64	15.84	15.84
Cruiser 5FS	oz											1.2800	0.90	1.15	1.15
Fert Appl (Liquid)	8R-38	MFWD 190	0.077	1.00	Apr	1.77	2.80	1.07	1.16	0.11	1.38				8.18
LA Nitrogen	lb											110.0000	0.38	41.80	41.80
LA Phosphate	lb											40.0000	0.39	15.60	15.60
LA Potash	lb											40.0000	0.28	11.20	11.20
Atrazine 4L	pt			1.00	Apr							4.0000	1.50	6.00	6.00
Roundup WeatherMax	oz											22.0000	0.19	4.18	4.18
Dual II Magnum	pt											1.0000	14.56	14.56	14.56
App by Air ( 3 gal)	appl			1.00	Jul							1.0000	5.50	5.50	5.50
Karate Z	oz											2.1300	1.00	2.13	2.13
Quadris	oz											6.0000	0.94	5.64	5.64
App by Air ( 3 gal)	appl			1.00	Jul							1.0000	5.50	5.50	5.50
Belt	oz											2.5000	7.00	17.50	17.50
Transform	oz											1.0000	7.81	7.81	7.81
Sivanto	oz											4.0000	2.50	10.00	10.00
App by Air ( 5 gal)	appl			0.50	Aug							0.5000	7.00	3.50	3.50
Roundup WeatherMax	oz											11.0000	0.19	2.09	2.09
Header Wheat/Sorghum	30' Rigid	275hp	0.085	1.00	Aug	5.20	11.95	0.55	0.79	0.08	1.30				19.79
Haul Sorghum	bu			1.00	Aug							100.0000	0.25	25.00	25.00
Digital Ag Fee	acre			1.00	Aug							1.0000	8.50	8.50	8.50
Stalk Shredder-Flail	20'	MFWD 150	0.082	1.00	Sep	1.47	2.14	2.19	1.28	0.08	0.98				8.06
TOTALS						13.29	24.25	5.83	7.77	0.60	7.47			230.92	289.53
INTEREST ON OPERATING CAPITAL															5.32
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															294.85

Table 1.C Breakeven price above direct expenses and net returns for price/yield combinations, per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2021.

Grain Sorghum			-----BREAKEVEN PRICE-----										
			1.83	1.94	2.08	2.23	2.41	2.62	2.89	3.22	3.64	4.21	5.00
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu	-158	-152	-146	-138	-129	-118	-105	-89	-67	-39	0
			-190	-184	-178	-170	-161	-150	-137	-121	-99	-71	-32
60	60.00	bu	-142	-135	-127	-118	-107	-95	-79	-59	-33	0	47
			-174	-167	-159	-150	-139	-127	-111	-91	-65	-32	15
70	70.00	bu	-126	-118	-109	-98	-86	-71	-52	-29	0	39	95
			-158	-150	-141	-130	-118	-103	-84	-61	-32	7	62
80	80.00	bu	-110	-101	-91	-79	-64	-47	-26	0	33	79	142
			-142	-133	-123	-111	-96	-79	-58	-32	1	47	110
90	90.00	bu	-95	-84	-73	-59	-43	-23	0	29	67	118	190
			-127	-116	-105	-91	-75	-55	-32	-2	35	86	157
100	100.00	bu	-79	-67	-54	-39	-21	0	26	59	101	158	237
			-111	-99	-86	-71	-53	-32	-5	27	69	126	205
110	110.00	bu	-63	-50	-36	-19	0	23	52	89	135	197	285
			-95	-82	-68	-51	-32	-8	20	57	103	165	252
120	120.00	bu	-47	-33	-18	0	21	47	79	118	169	237	332
			-79	-65	-50	-32	-10	15	47	86	137	205	300
130	130.00	bu	-31	-16	0	19	43	71	105	148	203	277	380
			-63	-48	-32	-12	11	39	73	116	171	245	347
140	140.00	bu	-15	0	18	39	64	95	131	178	237	316	427
			-47	-32	-13	7	32	62	99	146	205	284	395
150	150.00	bu	0	16	36	59	86	118	158	207	271	356	475
			-32	-15	4	27	54	86	126	175	239	324	442

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.

Table 1.D Breakeven price above total expenses and net returns for price/yield combinations, per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2021.

Grain Sorghum			-----BREAKEVEN PRICE-----										
			2.05	2.17	2.32	2.49	2.70	2.94	3.24	3.62	4.10	4.74	5.64
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu	-147	-141	-133	-125	-114	-102	-87	-69	-44	-12	32
			-179	-173	-165	-157	-147	-134	-119	-101	-77	-44	0
60	60.00	bu	-129	-121	-113	-102	-90	-75	-57	-35	-6	32	85
			-161	-154	-145	-134	-122	-107	-89	-67	-38	0	53
70	70.00	bu	-111	-102	-92	-80	-65	-48	-27	-1	32	76	139
			-143	-134	-124	-112	-98	-80	-59	-33	0	44	107
80	80.00	bu	-93	-83	-71	-57	-41	-21	2	32	70	121	193
			-125	-115	-103	-89	-73	-53	-29	0	38	89	161
90	90.00	bu	-75	-64	-50	-35	-16	5	32	65	109	166	247
			-107	-96	-82	-67	-49	-26	0	33	77	134	215
100	100.00	bu	-57	-44	-30	-12	7	32	61	99	147	211	301
			-89	-77	-62	-44	-24	0	29	67	115	179	269
110	110.00	bu	-39	-25	-9	9	32	58	91	133	186	256	355
			-71	-57	-41	-22	0	26	59	101	154	224	323
120	120.00	bu	-21	-6	11	32	56	85	121	166	224	301	409
			-53	-38	-20	0	24	53	89	134	192	269	377
130	130.00	bu	-3	12	32	54	81	112	151	200	263	346	463
			-35	-19	0	22	49	80	119	168	231	314	431
140	140.00	bu	14	32	52	76	105	139	181	234	301	391	517
			-17	0	20	44	73	107	149	202	269	359	485
150	150.00	bu	32	51	73	99	130	166	211	267	340	436	571
			0	19	41	67	98	134	179	235	308	404	539

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.

Table 2.A Estimated costs per Acre  
 Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
 Southwest Louisiana, 2021.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 3 gal)	appl	5.50	1.0000	5.50	_____
App by Air ( 5 gal)	appl	7.00	1.0000	7.00	_____
LARice GPS Charge-SW	acre	0.35	1.0000	0.35	_____
FERTILIZERS					
LA Nitrogen	lb	0.38	104.0000	39.52	_____
LA Phosphate	lb	0.39	48.0000	18.72	_____
LA Potash	lb	0.28	48.0000	13.44	_____
FUNGICIDES					
Quadris	oz	0.94	6.0000	5.64	_____
HERBICIDES					
Londax 60DF	oz	18.08	2.4000	43.39	_____
INSECTICIDES					
Belt	oz	7.00	2.5000	17.50	_____
Sivanto	oz	2.50	4.0000	10.00	_____
Transform	oz	7.81	1.0000	7.81	_____
SEED/PLANTS					
Sorghum Concept	lb	2.64	9.0000	23.76	_____
SERVICE FEE					
Digital Ag Fee	acre	8.50	1.0000	8.50	_____
CUSTOM FERT/LIME					
Custom Spread(Truc	appl	4.50	1.0000	4.50	_____
CUSTOM HARVEST/HAUL					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
HAND LABOR					
Implements	hour	9.06	0.0942	0.85	_____
LA OPERATOR LABOR					
Self-Propelled	hour	15.30	0.2310	3.54	_____
LA Hired Labor					
Tractors	hour	11.83	0.3812	4.52	_____
DIESEL FUEL					
Tractors	gal	1.73	3.7828	6.55	_____
Self-Propelled	gal	1.73	1.4915	2.58	_____
REPAIR & MAINTENANCE					
Implements	acre	4.38	1.0000	4.38	_____
Tractors	acre	2.29	1.0000	2.29	_____
Self-Propelled	acre	9.24	1.0000	9.24	_____
INTEREST ON OP. CAP.	acre	3.31	1.0000	3.31	_____
TOTAL DIRECT EXPENSES				267.89	_____
FIXED EXPENSES					
Implements	acre	9.32	1.0000	9.32	_____
Tractors	acre	13.69	1.0000	13.69	_____
Self-Propelled	acre	13.47	1.0000	13.47	_____
TOTAL FIXED EXPENSES				36.48	_____
TOTAL SPECIFIED EXPENSES				304.37	_____

Table 2.B Estimated resource use and costs for field operations, per Acre  
 Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
 Southwest Louisiana, 2021.

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-----			
Disk Harrow	28'	MFWD 225	0.070	1.00	Feb	1.92	3.06	1.09	2.19	0.07	0.83				9.09
Disk Harrow	28'	MFWD 225	0.070	1.00	Mar	1.92	3.06	1.09	2.19	0.07	0.83				9.09
Ditcher		MFWD 130	0.020	1.00	Mar	0.31	0.45	0.05	0.06	0.02	0.24				1.11
LA Boom Sprayer	30 ft	MFWD 170	0.059	1.00	Apr	1.21	1.80	0.13	0.14	0.05	0.71				3.99
Londax 60DF	oz											2.4000	18.08	43.39	43.39
Custom Spread(Truc	appl			1.00	Apr							1.0000	4.50	4.50	4.50
LA Nitrogen	lb											104.0000	0.38	39.52	39.52
LA Phosphate	lb											48.0000	0.39	18.72	18.72
LA Potash	lb											48.0000	0.28	13.44	13.44
Field Cultivate	32'	MFWD 225	0.046	1.00	Apr	1.27	2.04	0.51	2.03	0.04	0.55				6.40
Grain Drill	20'	MFWD 170	0.094	1.00	Apr	1.90	2.83	1.46	2.65	0.18	1.97				10.81
Sorghum Concept	lb											9.0000	2.64	23.76	23.76
Ditcher		MFWD 130	0.020	1.00	Apr	0.31	0.45	0.05	0.06	0.02	0.24				1.11
App by Air ( 3 gal)	appl			1.00	Jun							1.0000	5.50	5.50	5.50
Quadris	oz											6.0000	0.94	5.64	5.64
App by Air ( 5 gal)	appl			1.00	Jul							1.0000	7.00	7.00	7.00
Belt	oz											2.5000	7.00	17.50	17.50
LRice GPS Charge-SW acre												1.0000	0.35	0.35	0.35
Sivanto	oz											4.0000	2.50	10.00	10.00
Transform	oz											1.0000	7.81	7.81	7.81
LRice Combine Med	20 ft		0.210	1.00	Aug	11.82	13.47			0.23	3.54				28.83
Haul Sorghum	bu			1.00	Aug							100.0000	0.25	25.00	25.00
Digital Ag Fee	acre			1.00	Aug							1.0000	8.50	8.50	8.50
TOTALS						20.66	27.16	4.38	9.32	0.70	8.91			230.63	301.06
INTEREST ON OPERATING CAPITAL															3.31
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															304.37

Table 2.C Breakeven price above direct expenses and net returns for price/yield combinations, per Acre  
 Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
 Southwest Louisiana, 2021.

			-----BREAKEVEN PRICE-----										
LA Sorghum			1.86	1.98	2.11	2.27	2.45	2.67	2.94	3.28	3.71	4.29	5.10
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu.	-161	-156	-149	-141	-132	-121	-107	-91	-69	-40	0
			-198	-192	-185	-178	-168	-157	-144	-127	-105	-76	-36
60	60.00	bu.	-145	-138	-130	-121	-110	-97	-80	-60	-34	0	48
			-182	-175	-167	-157	-146	-133	-117	-97	-71	-36	12
70	70.00	bu.	-129	-121	-112	-101	-88	-72	-53	-30	0	40	97
			-165	-157	-148	-137	-124	-109	-90	-66	-36	3	60
80	80.00	bu.	-113	-104	-93	-80	-66	-48	-26	0	34	80	145
			-149	-140	-129	-117	-102	-85	-63	-36	-1	44	109
90	90.00	bu.	-97	-86	-74	-60	-44	-24	0	30	69	121	194
			-133	-123	-111	-97	-80	-60	-36	-6	32	84	157
100	100.00	bu.	-80	-69	-56	-40	-22	0	26	60	104	161	242
			-117	-105	-92	-76	-58	-36	-9	24	67	125	206
110	110.00	bu.	-64	-52	-37	-20	0	24	53	91	138	202	291
			-101	-88	-73	-56	-36	-12	17	54	102	165	254
120	120.00	bu.	-48	-34	-18	0	22	48	80	121	173	242	339
			-85	-71	-55	-36	-14	12	44	84	136	206	303
130	130.00	bu.	-32	-17	0	20	44	72	107	151	208	283	388
			-68	-53	-36	-16	7	36	71	115	171	246	352
140	140.00	bu.	-16	0	18	40	66	97	134	182	242	323	437
			-52	-36	-17	3	29	60	98	145	206	287	400
150	150.00	bu.	0	17	37	60	88	121	161	212	277	364	485
			-36	-19	0	24	51	84	125	175	241	327	449

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.

Table 2.D Breakeven price above total expenses and net returns for price/yield combinations, per Acre  
 Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
 Southwest Louisiana, 2021.

			-----BREAKEVEN PRICE-----										
LA Sorghum			2.11	2.24	2.39	2.57	2.78	3.04	3.35	3.74	4.24	4.90	5.83
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu.	-149	-143	-135	-126	-115	-103	-87	-68	-43	-10	36
			-186	-179	-171	-162	-152	-139	-124	-104	-79	-46	0
60	60.00	bu.	-131	-123	-113	-103	-90	-75	-56	-33	-3	36	92
			-167	-159	-150	-139	-126	-111	-93	-69	-39	0	55
70	70.00	bu.	-112	-103	-92	-79	-65	-47	-25	1	36	83	148
			-148	-139	-128	-116	-101	-83	-62	-34	0	46	111
80	80.00	bu.	-93	-83	-70	-56	-39	-19	5	36	76	129	204
			-130	-119	-107	-93	-76	-55	-31	0	39	93	167
90	90.00	bu.	-75	-63	-49	-33	-14	8	36	71	116	176	259
			-111	-99	-85	-69	-50	-27	0	34	79	139	223
100	100.00	bu.	-56	-43	-27	-10	11	36	67	106	156	222	315
			-93	-79	-64	-46	-25	0	31	69	119	186	279
110	110.00	bu.	-37	-23	-6	13	36	64	98	141	196	269	371
			-74	-59	-42	-23	0	27	62	104	159	232	335
120	120.00	bu.	-19	-3	14	36	61	92	129	176	235	315	427
			-55	-39	-21	0	25	55	93	139	199	279	391
130	130.00	bu.	0	16	36	59	87	120	160	211	275	362	483
			-37	-19	0	23	50	83	124	174	239	325	446
140	140.00	bu.	17	36	57	83	112	148	191	245	315	408	539
			-18	0	21	46	76	111	155	209	279	372	502
150	150.00	bu.	36	56	79	106	138	176	222	280	355	455	595
			0	19	42	69	101	139	186	244	319	418	558

The top number in each cell is Returns Above Direct Expenses.  
 The bottom number in each cell is Returns Above Total Specified Expenses.  
 Only the product listed has been varied to calculate net returns.

Appendix Table 1. Operating Inputs: Estimated Prices for 2021.

ITEM NAME	UNIT	PRICE
dollars		
CUSTOM HARVEST/HAUL		
Haul Corn	bu	0.23
Haul Cotton	lb	0.02
Haul Rice	bu	0.35
Haul Rice (cwt)	cwt	0.25
Haul Sorghum	bu	0.25
Haul Soybeans	bu	0.27
Haul Wheat	bu	0.26
LARice Haul	cwt	0.30
CUSTOM PLANT		
Custom Spread + Seed	appl	0.00
LARice Air Plant NE	cwt	5.50
LARice Air Plant SW	cwt	5.60
Plant by Air	cwt	7.00
CUSTOM SPRAY		
App 2,4-D Helicopter	appl	0.00
App by Air ( 1 gal)	appl	2.50
App by Air ( 2 gal)	appl	4.00
App by Air ( 3 gal)	appl	5.50
App by Air ( 5 gal)	appl	7.00
App by Air (10 gal)	appl	9.00
App Furadan by Air	appl	0.00
App Ordram by Air	appl	0.00
Custom Apply	acre	7.50
Custom Terragator	acre	5.00
LARice GPS Charge-SW	acre	0.35
LARice GPS Charge_NE	acre	0.25
Spray Levees, 4whlr	acre	0.00
FERTILIZERS		
Amm Nitrate (34% N)	cwt	22.50
Amm Sulfate (21% N)	cwt	18.62
Anhy Ammonia (82% N)	cwt	28.00
Boron (Solubor)	lb	0.75
Crop Oil ( Seed Oil)	pt	3.00
DAP	cwt	20.99
Fert 0-20-20	cwt	0.00
Fert 10-10-10	cwt	0.00
Fert 10-34-0	cwt	24.08
Fert 10-34-0	gal	2.80
Fert 13-13-13	cwt	0.00
Fert 41-0-0-4	cwt	18.22
Fert 5-20-20	cwt	0.00
LA Nitrogen	lb	0.38
LA Phosphate	lb	0.39
LA Potash	lb	0.28
Phosphorus(46% P2O5)	cwt	23.75
Potash (60% K2O)	cwt	20.00
Sulfur	lb	0.34
UAN (32% N)	cwt	12.03
UAN + Sulfur (28% N)	cwt	14.49
Urea, Solid (46% N)	cwt	19.74
Zinc	lb	0.50
FUNGICIDES		
Apron Maxx RTA	oz	0.90
Apron XL	oz	6.98
Apron XL LS	oz	5.27
Benlate 50 WP	lb	15.95
Captan 4L	pt	2.83
Captan 50 WP	lb	5.94
Crop Oil (Petroleum)	pt	2.86
Cruiser 5FS	oz	0.90
Delta Coat AD	oz	3.75
Dithane F-45	qt	7.81
Dithane Rainsheild	lb	4.08
Fungicide	lb	2.82
Gem 25 WG	oz	3.70
Manzate 75 DF	lb	4.86
Manzate Flowable	pt	4.60
Moncut 70 DF	lb	32.81
Orbit	oz	2.75
Prevail	lb	28.50
Quadris	oz	0.94
Ridomil GoldPC 10G	lb	2.08

Appendix Table 1. Operating inputs: estimated prices Louisiana, 2021.

ITEM NAME	UNIT	PRICE
		dollars
Ridomil Gold PC	lb	5.30
Ridomil Gold PC Liq	oz	6.42
Rovral 4F	pt	14.90
Rovral WG	lb	0.00
Shelter	oz	8.50
Stiletto	oz	0.58
Stratego	pt	77.60
Terrachlor Flowable	pt	4.74
Terraclor 2EC	pt	1.87
Terraclor Super X EC	pt	3.95
Terraclor Super X G	lb	2.82
Tilt 3.6 EC	oz	0.76
Vitavax 200	oz	0.47
Vitavax M Flowable	oz	1.06
Vitavax RTU-Thiram	oz	0.40
Vitavax T-L	oz	0.29
GIN/DRY		
Dry Corn	bu	0.19
Dry Grain Sorghum	cwt	0.25
Dry Rice	bu	0.40
Dry Rice (cwt)	cwt	0.90
Gin	lb	0.11
LARice Dry	cwt	0.90
GROWTH REGULATORS		
Early Harvest PGR	oz	1.55
LA Polado	oz	0.19
Mepex	oz	0.06
PGR IV	oz	1.55
Pix Plus	oz	0.40
Pix Ultra	oz	0.21
HARVEST AIDS		
Accelerate	pt	2.59
Ammonium Sulfate	lb	0.24
Boll'd	pt	3.84
CottonQuik	pt	6.06
Def 6	pt	7.68
Def/Folex	pt	7.68
Dropp 50 WP	lb	45.45
Dropp SC	oz	1.70
Ethephon 6E	pt	4.00
Finish 6	pt	8.00
Folex 6EC	pt	10.21
Ginstar EC	pt	26.68
Gramoxone Extra	pt	4.86
Gramoxone Inteon	oz	0.19
Gramoxone Max	pt	4.16
Harvade 5F	oz	0.67
Leafless	pt	18.56
Prep	pt	3.84
Sodium Chlorate 3L	gal	3.50
Sodium Chlorate 6L	gal	6.77
Starfire	pt	0.00
HERBICIDES		
2,4-D Amine 4	pt	1.85
2,4-D Ester	pt	2.68
AAtrex 4L	pt	2.23
AAtrex NINE-O	lb	3.96
Accent Gold	oz	6.12
Accent SP	oz	36.25
Aim 2EC	oz	5.00
Aim DF	oz	9.65
App Fert by Air	cwt	7.00
Arrosolo	qt	7.88
Assure II	oz	0.74
Atrazine 4L	pt	1.50
Atrazine 90DF	lb	3.59
Authority 75DF	lb	26.95
Axiom 68DF	lb	25.74
Backdraft	pt	2.40
Banvel	pt	6.67
Basagran	pt	5.43
Basis Gold	lb	9.00

Appendix Table 1. Operating inputs: estimated prices Louisiana, 2021.

ITEM NAME	UNIT	PRICE
		dollars
Beacon 75% WSP	oz	34.87
Beyond	oz	4.48
Bicep II Magnum	qt	11.01
Bicep II zmsgnum	qt	10.97
Bladex 4L	qt	0.00
Bladex 90DF	lb	0.00
Blazer 2L	pt	0.00
Blazer Ultra	pt	9.79
Boa	pt	3.63
Bolero 8EC	pt	7.73
Boundary	pt	11.07
Bucril 4EC	pt	17.06
Butoxone 175 (2,4-DB)	pt	3.24
Butoxone 200 (2,4-DB)	pt	3.92
Butyrac 175 (2,4-DB)	pt	3.29
Butyrac 200 (2,4-DB)	pt	3.64
Canopy 75%	oz	2.74
Canopy XL	oz	2.32
Caparol 4L	pt	4.67
Caparol Accu-Pak	lb	0.00
Celebrity Plus	lb	84.50
Clarity	pt	10.73
Classic	oz	16.86
Clincher EC	oz	1.95
Cobra 2EC	oz	1.70
Command 3ME	pt	18.56
Command XTRA	pt	0.00
Conclude Ultra	pt	0.00
Conclude Ultra	pt	0.00
Conclude XACT	pt	11.32
Conclude XTRA	pt	8.32
Cornerstone	pt	2.50
Cotoran 4L	pt	6.01
Cotoran DF	lb	7.92
Cotton Pro Flowable	pt	3.75
Crossbow	pt	8.05
Cy-Pro 4L	qt	0.00
Cypro 90DF	lb	0.00
Delta Goal	pt	9.44
Denim 0.16 EC	pt	24.06
Detail	pt	7.99
Direx 4L	pt	3.02
Direx 80 DF	lb	6.20
Diuron 4L	pt	3.03
Diuron 80 DF	lb	5.09
Domain 60DF	lb	12.75
DSMA 4	pt	0.90
Dual 8E	pt	0.00
Dual II Magnum	pt	14.56
Dual Magnum	pt	13.33
Duet	pt	5.63
Evik DF 80W	lb	11.22
Exceed	oz	10.71
Exceed Custom Pak	oz	11.50
Expert	pt	4.39
Facet 75DF	lb	50.00
First Rate	oz	42.57
Flexstar HL	pt	4.66
FloMet 4L	pt	4.74
Freedom	qt	2.51
Front Row	oz	21.92
Frontier 6.0	oz	0.63
Fultime	pt	6.29
Fusilade DX	oz	1.15
Fusion	pt	29.86
Glyfos	pt	1.80
Glyphomax	pt	3.49
Glyphosate Plus 4L	pt	2.08
Glystar Plus	pt	2.17
Goal 2XL	pt	7.52
Gramoxone Extra	pt	0.00
Gramoxone Max	pt	3.00
Gramoxone Max	pt	3.00



Appendix Table 1. Operating inputs: estimated prices Louisiana, 2021.

ITEM NAME	UNIT	PRICE
		dollars
Grandstand R	qt	17.15
Guardsman	pt	4.66
Guardsman Max	pt	7.22
Harmony Extra	oz	11.03
Hoelon 3EC	pt	11.03
Karmex DF	lb	5.93
LA Asulox/Asulam	gal	42.00
LA Weedmaster	qt	5.76
Lariat	qt	7.58
Lasso 4EC	qt	6.60
Lasso II 15G	lb	0.00
Layby Pro	qt	12.60
Lexone 75DF	lb	18.90
Liberty	pt	8.84
Lightning	oz	14.25
Lightning	oz	14.25
Linex 4L	pt	9.28
Londax 60DF	oz	18.08
Lorox 50DF	lb	24.12
Matador	pt	0.00
MSMA 6.6	pt	3.86
MSMA6 + Surfactant	pt	3.86
Newpath 2SL	oz	3.83
Ordram 15-G	lb	1.34
Ordram 8-E	pt	9.42
Outlook	pt	17.66
Pendimax 3.3	pt	2.47
Permit 75DF	oz	15.00
Poast 1.53	pt	12.77
Poast Plus	pt	9.69
Propanil 4E	qt	5.15
Prowl 3.3 EC	pt	5.76
Pursuit DG	oz	11.59
Pursuit Plus EC	pt	7.10
Python WDG	oz	15.10
Raptor	oz	4.38
Reflex 2LC	pt	6.20
Regiment 80WP	oz	4.38
Remedy	pt	8.45
Resource .86EC	pt	24.49
Ricestar	pt	24.35
Roundup Original	pt	6.00
Roundup Original Max	oz	0.38
Roundup Power Max	pt	3.04
Roundup Ultra MAX	pt	5.97
Roundup Ultra Dry	lb	6.14
Roundup WeatherMax	oz	0.19
Scepter 70 DG	oz	4.82
Select 2EC	oz	0.71
Sencor 4F	pt	14.74
Sencor DF	lb	14.25
Squadron CE	pt	12.50
Stam 4E	qt	7.72
Stam 80 EDF	lb	9.45
Staple 85%	oz	16.01
Staple Plus	oz	8.55
Steadfast	oz	12.26
Steel	pt	10.28
Storm	pt	11.91
Strongarm	oz	56.42
Superwham	qt	8.61
Suprend	lb	13.52
Surpass 20G	lb	2.36
Surpass EC	qt	26.36
Touchdown	qt	10.21
Touchdown 4 IQ	pt	3.33
Touchdown Total	qt	10.21
Treflan HFP	pt	2.88
Treflan TR-10	lb	1.10

Appendix Table 1. Operating inputs: estimated prices Louisiana, 2021.

ITEM NAME	UNIT	PRICE
dollars		
Tri-Scept	pt	5.24
Trifluralin 4EC	pt	3.68
Trilin 10G	lb	0.79
Trilin 4EC	pt	2.12
Typhoon	qt	13.06
Valor WP	oz	5.83
Whip 360	pt	25.08
Zorial Rapid 80DF	lb	14.10
INSECTICIDES		
Acephate 80SP	lb	0.00
Acephate 90SP	lb	6.42
Admire 2 Flowable	oz	4.78
Ammo 2.5 EC	oz	0.85
App Fert by Air (Min)	appl	7.50
Asana .66 XL	oz	0.55
Aztec 2.1% G	lb	3.88
Baythroid 2	oz	2.58
Besiege	oz	1.95
Bidrin 8L	oz	1.33
Brigade EC	pt	9.60
Brigade WSB	lb	26.04
Capture 2EC	oz	2.28
Carbamate	oz	0.00
Centric 40WG	oz	5.08
Comite	pt	8.45
Condor XL	pt	0.00
Confirm 2F	oz	1.86
Counter 15G	lb	4.51
Counter CR	lb	2.65
Curacron 8E	pt	10.75
Custom Apply Fert	acre	7.00
Decis 1.5EC	oz	2.84
Declare	pt	4.08
Denim 0.16EC	pt	32.63
Di-Syston 15G	lb	3.48
Di-Syston 8	pt	14.32
Diamond .83EC	pt	19.52
Dimethoate 4E	pt	5.44
Dimilin 2L	oz	2.16
Dipel DF	lb	13.13
Dipel ES	pt	4.89
Force 3G	lb	7.28
Furadan 3G	lb	0.00
Furadan 4F	pt	9.81
Fury 1.5 EC	oz	1.30
Gaucho 480	oz	5.80
Intrepid 2F	oz	1.94
Intruder 70WP	oz	1.80
Karate Z	oz	1.00
Lannate LV	pt	9.00
Lannate SP	oz	2.42
Larvin 3.2	oz	0.63
Leverage 2.7	oz	2.17
Lorsban 15G	lb	2.35
Lorsban 4E	pt	6.10
Malathion 57EC	pt	4.23
Malathion 8E	pt	10.56
Malathion ULV	pt	4.93
Mepichlor 4.2% Liq	pt	5.91
Methyl Parathion	pt	5.79
Monitor 4	pt	16.50
Monitor 4	pt	16.50
Mustang Max	oz	1.50
Organophosphate	oz	0.00
Orthene 90S	lb	6.00
Orthene 97	lb	10.90
Ovasyn	pt	0.00
Ovicide	oz	0.00
Penncap M	pt	6.71
Phaser 3E	qt	8.13
Pirate 3SC	oz	0.00
Pounce 25WP	lb	16.50
Pounce 3.2 EC	oz	0.34

Appendix Table 1. Operating inputs: estimated prices Louisiana, 2021.

ITEM NAME	UNIT	PRICE
dollars		
Prevathon	oz	1.05
Provado 1.6F	oz	1.94
Scout X-TRA	oz	0.00
Sevin 80S	lb	7.40
Sevin XLR Plus	qt	12.16
Spintor 2SC	oz	4.93
Steward	pt	39.51
Surfactant	pt	3.30
Synthetic Pyrethroid	oz	0.00
Temik 15G Grit	lb	4.00
Thimet 20-G	lb	3.65
Thionex 3EC	pt	4.17
Thionex 50W	lb	10.45
Tracer	oz	9.73
Trimax	oz	1.85
Vydate C-LV	oz	0.93
Warrior Z	oz	1.80
Warrior ZT	oz	2.57
IRRIGATION SUPPLIES		
Rice Gates	each	3.65
Roll-Out Pipe	ft	0.24
OVERHEAD		
Farmstead & Drainage	Dol	1.00
LA Rice Insurance	Dollar	1.00
LA Rice Misc. Overhd	dollar	1.00
LA Rice Property Tax	dollar	1.00
Shops Bldg & Equip.	Dol	6.55
SERVICE FEE		
Utilities	Dol	1.00
SEED/PLANTS		
Corn Seed Bt	thous	2.60
Corn Seed BtRR	thous	4.38
Corn Seed Conv.	thous	2.76
Corn Seed RR	thous	3.38
Corn Seed VT3	thous	3.91
Corn Seed VT3Pro	thous	3.91
Cotton Seed BG/RR	thous	0.62
Cotton Seed BGII/RRF	thous	2.61
Cotton Seed Bt	thous	2.60
Cotton Seed BtRR	thous	3.15
Cotton Seed Bxn	thous	0.00
Cotton Seed Conv.	thous	0.00
Cotton Seed Liberty	thous	1.05
Cotton Seed Liberty	thous	1.05
Cotton Seed RR	thous	0.63
Cotton Seed RR	thous	0.63
Cotton Seed WS	thous	0.49
Cotton Seed WS/RR	thous	0.00
Cotton Seed WS/RRF	thous	0.59
Rice Clearfield 161	lb	0.90
Rice Clearfield XL8	lb	6.12
Rice Seed (Levees)	lb	0.90
Rice Seed CF (Levees)	lb	0.95
Rice Seed Conv.	lb	0.32
Rice Seed Hybrid	lb	5.66
SC Cultured seedcane	acre	484.00
Sorghum Concept	lb	2.64
Sorghum Hybrid Sudax	lb	1.20
Sorghum NonConcept	lb	1.18
Soybean Seed LL	lb	1.16
Soybean Seed Private	lb	0.38
Soybean Seed Public	lb	0.00
Soybean Seed RR	lb	0.84
Soybean Seed Stack	lb	1.28
Wheat Seed Private	lb	0.28
Wheat Seed Public	lb	0.00

Appendix Table 1. Operating inputs: estimated prices Louisiana, 2021.

ITEM NAME	UNIT	PRICE
dollars		
SERVICE FEE		
Cotton Checkoff	bale	2.56
Cotton Storage	bale	25.00
Crop Consultant	acre	7.00
Custom Combine Rice	acre	0.00
Custom Spread(Truc	appl	4.50
Digital Ag Fee	acre	8.50
Digital Ag Fee	acre	8.50
Insect Scouting	acre	7.00
Lime (Spread)	ton	38.00
Rice Consultant	acre	8.00
RRF Cotton Tech Fee	cap/ac	48.25
SC Treating Charge	acre	0.00
Survey & Mark Levees	acre	4.50
Survey & Mark Levees	acre	4.50
TECHNOLOGY FEE		
BG Cot Tech Fee	thous	0.28
BG Cot Tech Fee	cap/ac	19.50
BG II Cot Tech Fee	thous	0.76
BG II Cot Tech Fee	cap/ac	31.91
BG II/RR Tech Fee	thous	1.49
BG II/RR Tech Fee	cap/ac	62.69
BGII/RRF Cot Tech Fe	thous	1.49
BGII/RRF Cot Tech Fe	cap/ac	62.69
Eradication Fee	acre	6.00
Eradication Zone 1	acre	6.00
Eradication Zone 1A	acre	6.00
Eradication Zone 1B	acre	6.00
Eradication Zone 2	acre	6.00
Eradication Zone 3	acre	6.00
Eradication Zone 4	acre	6.00
RR Cotton Tech Fee	thous	1.04
RR Cotton Tech Fee	cap/ac	43.66
RR Cotton Tech Fee	thous	1.04
RR Cotton Tech Fee	cap/ac	43.66
RRF Cotton Tech Fee	thous	1.04

Appendix Table 2. Tractors: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Louisiana 2021.

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	-----\$/hour-----					
Combine (170-199 hp)	190hp	0	300	8	9.78	13.51	16.91	0.00	30.42	0.00	30.42
Combine (200-249 hp)	240hp	161,548	300	8	12.35	13.51	21.36	16.82	51.70	64.41	116.12
Combine (225-274 hp)	Track250hp	0	300	8	12.87	13.51	22.26	0.00	35.77	0.00	35.77
Combine (250-299 hp)	275hp	352,000	300	8	14.15	13.51	24.47	36.66	74.65	140.36	215.01
Combine (250-299hp)	Grass295hp	218,222	300	8	15.18	13.51	26.26	22.73	62.50	87.01	149.52
Combine (275-299 hp)	Track290hp	0	300	8	14.93	13.51	25.82	0.00	39.33	0.00	39.33
Combine (300-349 hp)	325hp	383,000	300	8	16.73	13.51	28.94	39.89	82.34	152.72	235.07
Combine (300-349hp)	Track320hp	0	300	8	16.47	13.51	28.49	0.00	42.00	0.00	42.00
Combine (350-379 hp)	370hp	390,000	300	8	19.04	13.51	32.93	40.62	87.07	155.51	242.58
Combine (350-379 hp)	Track365hp	0	300	8	18.79	13.51	32.50	0.00	46.01	0.00	46.01
Cotton Stripper	173hp	170,000	200	8	8.08	13.51	13.97	26.56	54.05	101.68	155.73
SC Tractor 93 MDR	93	46,683	600	10	4.79	11.83	8.28	2.72	22.83	7.55	30.39
SC Tractpr 68 MDR	68	27,049	600	10	3.50	11.83	6.05	1.57	19.46	4.37	23.83
Tractor ( 40-59hp)Cab	2WD 50	30,900	600	8	2.57	11.83	4.45	0.96	17.24	5.61	22.85
Tractor ( 40-59hp)Cab	MFWD 50	41,400	600	8	2.57	11.83	4.45	1.29	17.57	7.51	25.09
Tractor ( 40-59hp)RB	2WD 50	30,900	600	8	2.57	11.83	4.45	0.96	17.24	5.61	22.85
Tractor ( 40-59hp)RB	MFWD 50	27,200	600	8	2.57	11.83	4.45	0.85	17.13	4.93	22.07
Tractor ( 60-89hp)CAB	2WD 75	53,200	600	8	3.86	11.83	6.67	1.66	20.17	9.66	29.83
Tractor ( 60-89hp)CAB	MFWD 75	57,600	600	8	3.86	11.83	6.67	1.80	20.30	10.46	30.76
Tractor ( 60-89hp)RB	2WD 75	38,400	600	8	3.86	11.83	6.67	1.20	19.70	6.97	26.68
Tractor ( 60-89hp)RB	MFWD 75	41,800	600	8	3.86	11.83	6.67	1.30	19.81	7.59	27.40
Tractor ( 90-119hp)CB	2WD 105	71,200	600	8	5.40	11.83	9.34	2.22	23.40	12.93	36.33
Tractor ( 90-119hp)CB	MFWD 105	91,700	600	8	5.40	11.83	9.34	2.86	24.04	16.65	40.69
Tractor ( 90-119hp)RB	2WD 105	64,600	600	8	5.40	11.83	9.34	2.01	23.19	11.73	34.93
Tractor ( 90-119hp)RB	MFWD 105	71,900	600	8	5.40	11.83	9.34	2.24	23.42	13.05	36.48
Tractor (120-139hp)CB	2WD 130	113,000	600	8	6.69	11.83	11.57	3.53	26.93	20.52	47.45
Tractor (120-139hp)CB	MFWD 130	126,000	600	8	6.69	11.83	11.57	3.93	27.34	22.88	50.22
Tractor (140-159hp)CB	2WD 150	111,000	600	8	7.72	11.83	13.35	3.46	28.65	20.15	48.81
Tractor (140-159hp)CB	MFWD 150	143,000	600	8	7.72	11.83	13.35	4.46	29.65	25.97	55.62
Tractor (160-179hp)CB	2WD 170	160,000	600	8	8.75	11.83	15.13	5.00	31.96	30.47	62.44
Tractor (160-179hp)CB	MFWD 170	160,000	600	8	8.75	11.83	15.13	5.00	31.96	30.47	62.44
Tractor (160-199hp)CB	Track 180	142,710	600	8	9.26	11.83	16.02	4.45	32.31	27.18	59.50
Tractor (180-199hp)CB	2WD 190	143,000	600	8	9.77	11.83	16.91	4.46	33.21	27.24	60.45
Tractor (180-199hp)CB	MFWD 190	189,000	600	8	9.77	11.83	16.91	5.90	34.65	36.00	70.65
Tractor (200-249hp)CB	4WD 225	147,066	600	8	11.58	11.83	20.03	4.59	36.46	28.01	64.47
Tractor (200-249hp)CB	MFWD 225	233,000	600	8	11.58	11.83	20.03	7.28	39.14	44.38	83.53
Tractor (200-249hp)CB	Track 225	277,000	600	8	11.58	11.83	20.03	8.65	40.52	52.76	93.28
Tractor (250-349hp)CB	4WD 300	298,000	600	8	15.44	11.83	26.71	9.31	47.85	56.76	104.62
Tractor (250-349hp)CB	Track 300	329,000	600	8	15.44	11.83	26.71	10.28	48.82	62.67	111.49
Tractor (350-449hp)CB	4WD 400	366,000	600	8	20.58	11.83	35.61	11.43	58.88	69.72	128.60
Tractor (350-449hp)CB	Track 400	453,000	600	8	20.58	11.83	35.61	14.15	61.60	86.29	147.89
Tractor (450-uphp)CB	TRACK-475	279,879	600	8	24.44	11.83	42.29	8.74	62.87	53.31	116.18

Appendix Table 3. Self-propelled machines: estimated purchase price, annual use, useful life, fuel use, performance rate, and direct and fixed cost per acre, Louisiana 2021.

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Perf Rate	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	hr/ac	-----\$/acre-----					
ATV - 4 Wheeler	12'	0	100	8	1.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
ATV - 4 Wheeler	20'	8,750	100	8	1.00	0.200	2.70	0.50	0.43	3.63	2.23	5.87
Butt Levee (Backhoe)	70 HP	73,000	150	8	5.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Cotton Picker-1st-BB	2R38"157hp	144,912	200	8	8.08	0.519	11.72	10.24	11.76	33.73	49.92	83.66
Cotton Picker-1st-BB	4R2X1260hp	317,399	200	8	13.33	0.172	3.88	5.60	8.54	18.03	36.25	54.29
Cotton Picker-1st-BB	4R30"250hp	262,000	200	8	12.86	0.327	7.38	10.27	13.40	31.07	56.86	87.93
Cotton Picker-1st-BB	4R30"325hp	350,000	200	8	18.01	0.327	7.38	14.38	17.90	39.67	75.96	115.64
Cotton Picker-1st-BB	4R38"255hp	268,000	200	8	13.12	0.257	5.81	8.25	10.79	24.86	45.80	70.66
Cotton Picker-1st-BB	4R38"325hp	351,000	200	8	18.01	0.257	5.81	11.32	14.13	31.28	59.98	91.26
Cotton Picker-1st-BB	5R30"255hp	285,000	200	8	12.86	0.261	5.91	8.21	11.66	25.79	49.48	75.27
Cotton Picker-1st-BB	5R38"250hp	284,601	200	8	12.86	0.207	4.67	6.50	9.21	20.39	39.09	59.49
Cotton Picker-1st-BB	6R30"325hp	465,000	200	8	18.27	0.218	4.92	9.72	15.85	30.51	67.28	97.79
Cotton Picker-1st-BB	6R38"330hp	465,000	200	8	18.27	0.172	3.88	7.68	12.51	24.08	53.11	77.20
Cotton Picker-1st-Tr	2R38"157hp	144,912	200	8	8.08	0.519	11.72	10.24	11.76	33.73	49.92	83.66
Cotton Picker-1st-Tr	4R2X1255hp	322,137	200	8	18.01	0.172	3.88	7.57	8.67	20.13	36.79	56.93
Cotton Picker-1st-Tr	4R30"250hp	261,825	200	8	12.86	0.327	7.38	10.27	13.39	31.06	56.82	87.88
Cotton Picker-1st-Tr	4R38"325hp	311,088	200	8	16.72	0.327	7.38	13.36	15.91	36.66	67.51	104.18
Cotton Picker-1st-Tr	4R38"255hp	268,000	200	8	13.12	0.257	5.81	8.25	10.79	24.86	45.80	70.66
Cotton Picker-1st-Tr	4R38"325hp	351,000	200	8	18.01	0.257	5.81	11.32	14.13	31.28	59.98	91.26
Cotton Picker-1st-Tr	5R30"255hp	285,303	200	8	13.12	0.261	5.91	8.38	11.67	25.97	49.53	75.51
Cotton Picker-1st-Tr	5R38"250hp	290,471	200	8	12.86	0.207	4.67	6.50	9.40	20.58	39.90	60.48
Cotton Picker-1st-Tr	6R30"325hp	465,000	200	8	16.72	0.218	4.92	8.90	15.85	29.69	67.28	96.97
Cotton Picker-1st-Tr	6R38"330hp	465,000	200	8	18.01	0.172	3.88	7.57	12.51	23.98	53.11	77.10
Cotton Picker-2nd-BB	2R38"157hp	144,912	200	8	8.08	0.440	9.93	8.67	9.96	28.57	42.28	70.86
Cotton Picker-2nd-BB	4R2x1260hp	322,187	200	8	18.01	0.145	3.29	6.41	7.34	17.05	31.17	48.23
Cotton Picker-2nd-BB	4R30"250hp	261,825	200	8	12.86	0.277	6.25	8.70	11.34	26.31	48.13	74.44
Cotton Picker-2nd-BB	4R30"325hp	311,088	200	8	16.72	0.277	6.25	11.31	13.47	31.05	57.19	88.25
Cotton Picker-2nd-BB	4R38"255hp	268,000	200	8	13.12	0.218	4.92	6.99	9.14	21.06	38.79	59.85
Cotton Picker-2nd-BB	4R38"325hp	351,000	200	8	18.01	0.218	4.92	9.59	11.97	26.49	50.81	77.30
Cotton Picker-2nd-BB	5R30"255hp	285,303	200	8	13.12	0.221	5.00	7.10	9.88	22.00	41.96	63.96
Cotton Picker-2nd-BB	5R38"250hp	284,601	200	8	12.86	0.175	3.96	5.51	7.80	17.27	33.11	50.39
Cotton Picker-2nd-BB	6R30"325hp	465,000	200	8	18.01	0.184	4.17	8.12	13.43	25.72	56.99	82.72
Cotton Picker-2nd-BB	6R38"330hp	465,000	200	8	18.01	0.145	3.29	6.41	10.60	20.31	44.99	65.30
Cotton Picker-2nd-Tr	2R38"157hp	144,912	200	8	8.08	0.440	9.93	8.67	9.96	28.57	42.28	70.86
Cotton Picker-2nd-Tr	4R2X1260hp	322,137	200	8	18.01	0.145	3.29	6.41	7.34	17.05	31.16	48.22
Cotton Picker-2nd-Tr	4R30"250hp	261,825	200	8	12.86	0.277	6.25	8.70	11.34	26.31	48.13	74.44
Cotton Picker-2nd-Tr	4R30"325hp	311,088	200	8	16.72	0.277	6.25	11.31	13.47	31.05	57.19	88.25
Cotton Picker-2nd-Tr	4R38"255hp	268,000	200	8	13.12	0.218	4.92	6.99	9.14	21.06	38.79	59.85
Cotton Picker-2nd-Tr	4R38"325hp	351,000	200	8	18.01	0.218	4.92	9.59	11.97	26.49	50.81	77.30
Cotton Picker-2nd-Tr	5R30"255hp	285,303	200	8	13.12	0.221	5.00	7.10	9.88	22.00	41.96	63.96
Cotton Picker-2nd-Tr	5R38"250hp	290,471	200	8	12.86	0.175	3.96	5.51	7.96	17.43	33.79	51.23
Cotton Picker-2nd-Tr	6R30"325hp	465,000	200	8	16.72	0.184	4.17	7.54	13.43	25.15	56.99	82.14
Cotton Picker-2nd-Tr	6R38"330hp	465,000	200	8	18.01	0.145	3.29	6.41	10.60	20.31	44.99	65.30
LA Pickup Truck	1/2 ton	28,000	800	5	2.50	1.000	11.33	6.25	3.15	20.73	7.74	28.47
LA Rice Combine	25 ft	181,500	300	10	8.60	0.300	5.05	6.30	14.53	25.89	23.61	49.50
LA Rice Combine-2	25 ft	181,500	300	10	8.60	0.300	5.05	6.30	14.53	25.89	23.61	49.50
LARice Combine Med	20 ft	165,000	300	10	7.10	0.210	3.53	3.63	9.24	16.41	15.01	31.43
Levee Sprayer	27'	30,768	350	8	2.57	0.038	0.69	0.24	0.06	0.99	0.44	1.44
SC Billet Harvester	6 ft	319,000	750	10	12.00	0.700	11.78	20.49	29.77	62.05	38.25	100.30
SC Harvester 1Rw	6 ft	126,500	400	12	6.80	0.875	14.72	14.51	23.05	52.30	31.84	84.14
SC Harvester 2Rw	12 ft	231,000	400	12	8.00	0.388	6.53	7.57	18.67	32.77	25.78	58.56
SC Loader 1Rw	6 ft	93,500	425	10	5.10	0.598	7.46	7.45	9.61	24.53	17.12	41.65
SC Loader 2Rw	12 ft	165,000	425	10	7.00	0.300	3.74	5.12	8.51	17.38	15.15	32.53
SC Transloader		33,000	120	12	4.70	0.250	3.11	2.86	4.12	10.10	7.91	18.01
SC Truck&Trailer	30 Ton	49,500	400	10	7.00	1.000	12.46	17.08	8.66	38.20	16.08	54.29
Sprayer( 300-450Gal)	47'	0	350	8	5.40	0.022	0.40	0.29	0.00	0.70	0.00	0.70
Sprayer( 300-450Gal)	60'	103,000	350	8	5.66	0.017	0.31	0.24	0.09	0.65	0.68	1.34
Sprayer( 300-450Gal)	80'	103,000	350	8	5.66	0.013	0.23	0.18	0.07	0.49	0.51	1.00
Sprayer( 600-750Gal)	60'	216,000	350	8	10.29	0.017	0.31	0.44	0.20	0.96	1.44	2.40
Sprayer( 600-825Gal)	80'	215,000	350	8	10.29	0.013	0.23	0.33	0.15	0.72	1.07	1.79
Sprayer( 600-825Gal)	90'	316,000	350	8	10.29	0.011	0.21	0.29	0.19	0.70	1.40	2.11
Sprayer(1000-1400Gal)	90'	316,000	350	8	14.15	0.014	0.25	0.48	0.23	0.98	1.68	2.66
Sprayer(1200PlusGal)	120'	376,000	350	8	15.44	0.008	0.15	0.33	0.17	0.66	1.25	1.92







Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, (Continued) and direct and fixed cost per acre, Louisiana 2021.

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
							-----\$/acre-----							
Header-Cotton-Brush	5R-30	173hp	42,800	200	8	0.261	6.63	3.66	2.10	6.95	19.35	6.10	26.63	52.09
Header-Cotton-Brush	5R-38	173hp	44,300	200	8	0.207	5.25	2.89	1.72	5.50	15.37	5.00	21.06	41.44
Header-Cotton-Brush	6R-30	173hp	52,700	200	8	0.218	5.53	3.05	2.15	5.79	16.53	6.26	22.19	44.99
Heavy Disk	14'	MFWD 150	25,900	180	10	0.145	1.72	1.94	1.05	0.65	5.37	2.14	3.79	11.30
Heavy Disk	21'	MFWD 170	40,600	180	10	0.097	1.15	1.47	1.09	0.48	4.20	2.23	2.96	9.41
Heavy Disk	27'	MFWD 190	50,400	180	10	0.075	0.89	1.28	1.05	0.44	3.68	2.16	2.72	8.56
LA Boom Sprayer	30 ft	MFWD 150	3,000	150	10	0.059	0.70	0.80	0.13	0.26	1.91	0.14	1.55	3.61
Land Plane	40'x10'	MFWD 190	6,020	200	10	0.242	2.87	4.10	0.29	1.43	8.70	0.74	8.73	18.18
Land Plane	50'x16'	MFWD 190	10,800	200	10	0.151	1.79	2.56	0.32	0.89	5.58	0.83	5.45	11.87
LARice Backhoe-Rrmnt	2 ft	MFWD 150	6,000	100	10	0.500	5.91	6.67	2.64	2.23	17.46	3.54	12.98	34.00
LARice Land Level	13 ft	MFWD 150	7,500	200	15	0.190	2.24	2.53	0.15	0.84	5.79	0.62	4.93	11.36
LARice Levee Plow	8 ft	4WD 300	4,600	150	10	0.050	0.59	1.33	0.07	0.46	2.46	0.18	2.83	5.48
LARice Water Level	24 ft	4WD 300	3,500	100	15	0.149	1.77	4.00	0.23	1.39	7.40	0.46	8.51	16.37
Levee Splitter (1/80	2 blade	2WD 150	8,270	50	10	0.004	0.04	0.05	0.00	0.01	0.12	0.07	0.08	0.27
Lo-Till & Bed	4R-38	MFWD 190	5,100	150	12	0.145	1.72	2.46	0.26	0.85	5.31	0.46	5.24	11.01
Middle Buster	6R-30	MFWD 150	12,800	160	8	0.120	1.42	1.60	0.36	0.53	3.92	1.09	3.12	8.14
Middle Buster	8R-30	MFWD 190	20,800	160	8	0.114	1.35	1.93	0.55	0.67	4.51	1.69	4.11	10.32
Middle Buster	8R-38	MFWD 190	18,100	160	8	0.090	1.06	1.52	0.38	0.53	3.51	1.16	3.25	7.92
Middle Buster	8R-40 2x1	MFWD 190	29,200	160	8	0.060	0.71	1.01	0.41	0.35	2.49	1.25	2.16	5.91
Middle Buster	10R-30	MFWD 225	29,300	160	8	0.091	1.08	1.83	0.62	0.66	4.20	1.91	4.05	10.16
Middle Buster	10R-38	MFWD 225	32,100	160	8	0.072	0.85	1.44	0.54	0.52	3.36	1.65	3.19	8.21
Middle Buster	12R-38	MFWD 225	29,200	160	8	0.060	0.71	1.20	0.41	0.43	2.76	1.25	2.66	6.68
Module Builder-1st	2R-38(157)	MFWD 190	31,300	200	10	0.519	12.29	8.79	4.06	3.06	28.22	7.96	18.70	54.89
Module Builder-1st	4R-30(255)	MFWD 190	34,700	200	10	0.327	7.74	5.53	2.84	1.93	18.05	5.56	11.78	35.40
Module Builder-1st	4R-30(325)	MFWD 190	34,700	200	10	0.327	7.74	5.53	2.84	1.93	18.05	5.56	11.78	35.40
Module Builder-1st	4R-38(255)	MFWD 190	34,700	200	10	0.257	6.09	4.36	2.23	1.52	14.21	4.37	9.28	27.87
Module Builder-1st	4R-38(325)	MFWD 190	34,700	200	10	0.257	6.09	4.36	2.23	1.52	14.21	4.37	9.28	27.87
Module Builder-1st	4R2x1260hp	MFWD 190	34,700	200	10	0.172	4.07	2.91	1.49	1.01	9.50	2.92	6.20	18.63
Module Builder-1st	5R-30(255)	MFWD 190	34,700	200	10	0.261	6.19	4.43	2.27	1.54	14.44	4.44	9.42	28.32
Module Builder-1st	5R-38(255)	MFWD 190	34,700	200	10	0.207	4.90	3.50	1.79	1.22	11.42	3.51	7.46	22.40
Module Builder-1st	6R-30(325)	MFWD 190	34,700	200	10	0.218	5.16	3.69	1.89	1.28	12.03	3.70	7.85	23.60
Module Builder-1st	6R-38(325)	MFWD 190	34,700	200	10	0.172	4.07	2.91	1.49	1.01	9.50	2.92	6.20	18.63
Module Builder-2nd	2R-38(157)	MFWD 190	34,700	200	10	0.440	10.41	7.44	3.81	2.59	24.28	7.47	15.84	47.60
Module Builder-2nd	4R-30(255)	MFWD 190	34,700	200	10	0.277	6.56	4.69	2.40	1.63	15.29	4.71	9.98	29.99
Module Builder-2nd	4R-30(325)	MFWD 190	34,700	200	10	0.277	6.56	4.69	2.40	1.63	15.29	4.71	9.98	29.99
Module Builder-2nd	4R-38(255)	MFWD 190	34,700	200	10	0.218	5.16	3.69	1.89	1.28	12.04	3.70	7.86	23.61
Module Builder-2nd	4R-38(325)	MFWD 190	34,700	200	10	0.218	5.16	3.69	1.89	1.28	12.04	3.70	7.86	23.61
Module Builder-2nd	4R2x1 255	MFWD 190	34,700	200	10	0.145	3.45	2.46	1.26	0.86	8.05	2.47	5.25	15.78
Module Builder-2nd	5R-30(255)	MFWD 190	34,700	200	10	0.221	5.24	3.75	1.92	1.31	12.23	3.76	7.98	23.99
Module Builder-2nd	5R-38(255)	MFWD 190	34,700	200	10	0.175	4.15	2.96	1.52	1.03	9.68	2.98	6.31	18.98
Module Builder-2nd	6R-30(325)	MFWD 190	34,700	200	10	0.184	4.37	3.12	1.60	1.09	10.19	3.14	6.65	19.99
Module Builder-2nd	6R-38(325)	MFWD 190	34,700	200	10	0.145	3.45	2.46	1.26	0.86	8.05	2.47	5.25	15.78
Module Builder-Strip	13' Bcast	MFWD 150	34,700	200	10	0.251	5.95	3.36	2.18	1.12	12.63	4.27	6.54	23.44
Module Builder-Strip	16' Bcast	MFWD 150	34,700	200	10	0.204	4.84	2.73	1.77	0.91	10.26	3.47	5.31	19.05
Module Builder-Strip	19' Brush	MFWD 150	34,700	200	10	0.172	4.07	2.30	1.49	0.77	8.64	2.92	4.47	16.04
Module Builder-Strip	4R-30	MFWD 150	34,700	200	10	0.327	7.74	4.37	2.84	1.46	16.42	5.56	8.50	30.48
Module Builder-Strip	4R-30 2X1	MFWD 150	34,700	200	10	0.218	5.16	2.91	1.89	0.97	10.94	3.70	5.66	20.32
Module Builder-Strip	4R-38	MFWD 150	34,700	200	10	0.257	6.09	3.44	2.23	1.15	12.93	4.37	6.69	24.00
Module Builder-Strip	4R-38 2X1	MFWD 150	34,700	200	10	0.172	4.07	2.30	1.49	0.77	8.64	2.92	4.47	16.04
Module Builder-Strip	5R-30	MFWD 150	34,700	200	10	0.261	6.19	3.49	2.27	1.17	13.13	4.44	6.80	24.38
Module Builder-Strip	5R-38	MFWD 150	34,700	200	10	0.207	4.90	2.76	1.79	0.92	10.39	3.51	5.38	19.29
Module Builder-Strip	6R-30	MFWD 150	34,700	200	10	0.218	5.16	2.91	1.89	0.97	10.94	3.70	5.66	20.32
Mulcher Plow	30'	MFWD 225	0	100	10	0.068	0.80	1.36	0.00	0.49	2.66	0.00	3.02	5.68
NT Grain Drill	12'	2WD 130	46,600	150	8	0.163	3.87	1.89	2.86	0.57	9.20	5.27	3.35	17.83
NT Grain Drill	15'	MFWD 150	56,000	150	8	0.130	3.09	1.74	2.74	0.58	8.18	5.06	3.40	16.65
NT Grain Drill	20'	MFWD 170	67,400	150	8	0.098	2.32	1.48	2.48	0.49	6.78	4.57	2.99	14.35
NT Grain Drill	24'	MFWD 190	98,000	150	8	0.081	1.93	1.38	3.00	0.48	6.81	5.54	2.94	15.30
NT Grain Drill	30'	MFWD 225	104,300	150	8	0.065	1.54	1.31	2.56	0.47	5.89	4.71	2.90	13.52
NT Grain Drill & Pre	12'	2WD 130	54,000	150	8	0.176	4.17	2.04	3.56	0.62	10.40	6.57	3.61	20.59
NT Grain Drill & Pre	15'	MFWD 150	63,300	150	8	0.141	3.33	1.88	3.34	0.63	9.19	6.16	3.66	19.02
NT Grain Drill & Pre	20'	MFWD 170	74,700	150	8	0.105	2.50	1.60	2.96	0.52	7.59	5.45	3.22	16.27
NT Grain Drill & Pre	24'	MFWD 190	105,000	150	8	0.088	2.08	1.49	3.47	0.52	7.56	6.39	3.17	17.13
NT Grain Drill & Pre	30'	MFWD 225	112,000	150	8	0.070	1.66	1.41	2.96	0.51	6.55	5.45	3.12	15.14
NT Plant&Pre-Folding	8R-38	MFWD 170	67,700	150	8	0.083	1.97	1.26	2.12	0.41	5.78	3.91	2.54	12.24
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	103,000	150	8	0.055	1.31	0.84	2.15	0.27	4.58	3.96	1.69	10.24
NT Plant&Pre-Folding	10R-30	MFWD 190	57,555	150	8	0.084	2.00	1.43	1.82	0.49	5.75	3.36	3.04	12.17
NT Plant&Pre-Folding	10R-38	MFWD 190	52,893	150	8	0.066	1.57	1.12	1.32	0.39	4.42	2.43	2.40	9.26
NT Plant&Pre-Folding	12R-20	MFWD 190	82,600	150	8	0.105	2.50	1.78	3.27	0.62	8.19	6.03	3.80	18.03
NT Plant&Pre-Folding	12R-30	MFWD 190	91,000	150	8	0.070	1.66	1.19	2.40	0.41	5.68	4.43	2.53	12.65
NT Plant&Pre-Folding	12R-38	MFWD 190	103,000	150	8	0.055	1.31	0.94	2.15	0.32	4.73	3.96	2.00	10.70
NT Plant&Pre-Folding	16R-30	MFWD 190	137,000	150	8	0.052	1.25	0.89	2.71	0.31	5.17	5.00	1.90	12.08
NT Plant&Pre-Folding	23R-15	MFWD 190	186,000	150	8	0.073	1.73	1.24	5.12	0.43	8.53	9.43	2.64	20.62
NT Plant&Pre-Folding	24R-20	MFWD 190	207,000	150	8	0.052	1.25	0.89	4.10	0.31	6.56	7.56	1.90	16.03
NT Plant&Pre-Folding	24R-30	MFWD 190	217,000	150	8	0.035	0.83	0.59	2.86	0.20	4.50	5.28	1.26	11.06
NT Plant&Pre-Rigid	4R-30	2WD 130	34,600	150	8	0.211	5.00	2.44	2.74	0.74	10.94	5.05	4.34	20.34
NT Plant&Pre-Rigid	4R-38	2WD 130	36,000	150	8	0.166	3.94	1.92	2.24	0.58	8.70	4.14	3.41	16.26
NT Plant&Pre-Rigid	6R-30	MFWD 150	44,300	150	8	0.141	3.33	1.88	2.34	0.63	8.19	4.31	3.66	16.17
NT Plant&Pre-Rigid	6R-38	MFWD 150	43,500	150	8	0.111	2.63	1.48	1.81	0.49	6.43	3.34	2.89	12.67
NT Plant&Pre-Rigid	8R-22	MFWD 170	26,219	150	8	0.143	3.40	2.17	1.41	0.71	7.71	2.60	4.38	14.71
NT Plant&Pre-Rigid	8R-30	MFWD 170	54,500	150	8	0.105	2.50	1.60	2.16	0.52	6.79	3.98	3.22	14.00
NT Plant&Pre-Rigid	8R-38	MFWD 170	52,400	150	8	0.077	1.82	1.16	1.51	0.38	4.89	2.79	2.35	10.04
NT Plant&Pre-Rigid	10R-30	MFWD 190	51,900	150	8	0.084	2.00	1.43	1.64	0.49	5.58	3.03	3.04	11.66

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, (Continued) and direct and fixed cost per acre, Louisiana 2021.

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M--- Imp. P.U.	Total Direct	---Fixed--- Imp. P.U.	Total Cost		
			dollars	hours	years	hr/ac	-----\$/acre-----							
NT Plant&Pre-Rigid	12R-20	MFWD 190	65,700	150	8	0.105	2.50	1.78	2.60	0.62	7.52	4.80	3.80	16.13
NT Plant&Pre-Rigid	12R-30	MFWD 190	82,800	150	8	0.070	1.66	1.19	2.18	0.41	5.46	4.03	2.53	12.03
NT Plant-Folding	8R-38	MFWD 170	60,400	150	8	0.077	1.83	1.17	1.75	0.38	5.15	3.23	2.36	10.76
NT Plant-Folding	8R-38 2x1	MFWD 170	93,400	150	8	0.051	1.22	0.78	1.81	0.25	4.07	3.33	1.57	8.98
NT Plant-Folding	10R-30	MFWD 190	52,061	150	8	0.078	1.85	1.32	1.53	0.46	5.18	2.82	2.82	10.84
NT Plant-Folding	10R-38	MFWD 190	47,646	150	8	0.061	1.46	1.04	1.10	0.36	3.98	2.03	2.23	8.25
NT Plant-Folding	12R-20	MFWD 190	75,200	150	8	0.098	2.32	1.66	2.76	0.58	7.33	5.10	3.53	15.97
NT Plant-Folding	12R-30	MFWD 190	81,700	150	8	0.065	1.54	1.10	2.00	0.38	5.04	3.69	2.35	11.10
NT Plant-Folding	12R-38	MFWD 190	93,400	150	8	0.051	1.22	0.87	1.81	0.30	4.21	3.33	1.86	9.41
NT Plant-Folding	16R-30	MFWD 190	128,000	150	8	0.049	1.16	0.83	2.35	0.29	4.63	4.34	1.76	10.75
NT Plant-Folding	23R-15	MFWD 190	176,000	150	8	0.068	1.61	1.15	4.50	0.40	7.67	8.29	2.45	18.42
NT Plant-Folding	24R-20	MFWD 190	197,000	150	8	0.049	1.16	0.83	3.62	0.29	5.91	6.68	1.76	14.36
NT Plant-Folding	24R-30	MFWD 190	204,000	150	8	0.032	0.77	0.55	2.50	0.19	4.02	4.61	1.17	9.81
NT Plant-Rigid	4R-30	2WD 130	27,200	150	8	0.196	4.64	2.27	2.00	0.69	9.61	3.69	4.03	17.34
NT Plant-Rigid	4R-38	2WD 130	28,600	150	8	0.154	3.65	1.79	1.65	0.54	7.65	3.05	3.17	13.88
NT Plant-Rigid	6R-30	MFWD 150	37,000	150	8	0.130	3.09	1.74	1.81	0.58	7.24	3.34	3.40	13.99
NT Plant-Rigid	6R-38	MFWD 150	36,100	150	8	0.103	2.44	1.38	1.39	0.46	5.68	2.57	2.68	10.95
NT Plant-Rigid	8R-22	MFWD 170	21,142	150	8	0.133	3.16	2.02	1.05	0.66	6.91	1.95	4.07	12.93
NT Plant-Rigid	8R-30	MFWD 170	47,100	150	8	0.098	2.32	1.48	1.73	0.49	6.03	3.19	2.99	12.22
NT Plant-Rigid	8R-38	MFWD 170	44,300	150	8	0.077	1.83	1.17	1.28	0.38	4.69	2.37	2.36	9.43
NT Plant-Rigid	10R-30	MFWD 190	45,000	150	8	0.078	1.85	1.32	1.32	0.46	4.97	2.44	2.82	10.24
NT Plant-Rigid	12R-20	MFWD 190	58,400	150	8	0.098	2.32	1.66	2.15	0.58	6.71	3.96	3.53	14.21
NT Plant-Rigid	12R-30	MFWD 190	73,500	150	8	0.065	1.54	1.10	1.80	0.38	4.84	3.32	2.35	10.53
Paratill & Bed	4R-30	MFWD 225	18,700	150	12	0.204	2.41	4.09	1.37	1.48	9.37	2.29	9.06	20.74
Paratill & Bed	4R-38	MFWD 225	18,700	150	12	0.160	1.90	3.22	1.08	1.17	7.38	1.81	7.14	16.33
Paratill & Bed	6R-30	MFWD 225	17,300	150	12	0.136	1.61	2.72	0.85	0.99	6.18	1.41	6.04	13.64
Paratill & Bed	6R-38	MFWD 225	25,500	150	12	0.107	1.27	2.15	0.99	0.78	5.20	1.65	4.77	11.62
Paratill & Bed	8R-30	MFWD 225	22,600	150	12	0.102	1.20	2.04	0.83	0.74	4.83	1.38	4.53	10.75
Paratill & Bed	8R382X1	MFWD 225	69,100	150	12	0.053	0.63	1.07	1.34	0.39	3.44	2.23	2.38	8.06
Paratill & Bed Fold.	8R-38	MFWD 225	46,900	150	12	0.080	0.95	1.61	1.36	0.58	4.52	2.27	3.58	10.39
Paratill & Bed Fold.	12R-38	MFWD 225	67,900	150	12	0.053	0.63	1.07	1.31	0.39	3.42	2.19	2.38	8.00
Paratill & Bed Rigid	8R-38	MFWD 225	39,800	150	12	0.080	0.95	1.61	1.16	0.58	4.32	1.93	3.58	9.84
Pipe Drag	30'	2WD 150	500	100	12	0.051	0.61	0.69	0.00	0.17	1.49	0.02	1.04	2.55
Pipe Spool 160ac	1/4m roll	2WD 130	5,400	15	12	0.003	0.09	0.03	0.00	0.01	0.15	0.10	0.06	0.31
Pipe Trailer 1m/160a	30'	2WD 130	2,700	100	15	0.003	0.18	0.04	0.00	0.01	0.23	0.00	0.07	0.32
Plant & Pre Folding	8R-38	MFWD 170	61,000	150	8	0.080	1.89	1.21	1.83	0.40	5.35	3.38	2.44	11.18
Plant & Pre Folding	8R38 2x1	MFWD 170	92,700	150	8	0.053	1.26	0.80	1.85	0.26	4.19	3.42	1.62	9.24
Plant & Pre Folding	10R-30	MFWD 190	51,900	150	8	0.081	1.92	1.37	1.58	0.47	5.35	2.91	2.92	11.19
Plant & Pre Folding	10R-38	MFWD 190	48,258	150	8	0.064	1.51	1.08	1.15	0.37	4.13	2.13	2.30	8.57
Plant & Pre Folding	12R-20	MFWD 190	72,600	150	8	0.101	2.40	1.71	2.76	0.59	7.48	5.09	3.65	16.23
Plant & Pre Folding	12R-30	MFWD 190	81,000	150	8	0.067	1.60	1.14	2.05	0.39	5.20	3.78	2.43	11.42
Plant & Pre Folding	12R-38	MFWD 190	92,700	150	8	0.053	1.26	0.90	1.85	0.31	4.34	3.42	1.92	9.68
Plant & Pre Folding	16R-30	MFWD 190	124,000	150	8	0.050	1.20	0.85	2.36	0.29	4.72	4.34	1.82	10.89
Plant & Pre Folding	23R-15	MFWD 190	166,000	150	8	0.070	1.66	1.19	4.38	0.41	7.66	8.08	2.53	18.29
Plant & Pre Folding	24R-20	MFWD 190	187,000	150	8	0.050	1.20	0.85	3.56	0.29	5.92	6.55	1.82	14.30
Plant & Pre Folding	24R-30	MFWD 190	197,000	150	8	0.033	0.80	0.57	2.50	0.19	4.07	4.60	1.21	9.89
Plant & Pre Rigid	4R-30	2WD 130	31,600	150	8	0.203	4.80	2.35	2.40	0.71	10.27	4.43	4.16	18.88
Plant & Pre Rigid	4R-38	2WD 130	32,600	150	8	0.159	3.78	1.85	1.95	0.56	8.15	3.60	3.28	15.03
Plant & Pre Rigid	6R-30	MFWD 150	39,300	150	8	0.135	3.20	1.80	1.99	0.60	7.61	3.67	3.51	14.80
Plant & Pre Rigid	6R-38	MFWD 150	38,900	150	8	0.106	2.52	1.42	1.55	0.47	5.99	2.87	2.77	11.64
Plant & Pre Rigid	8R-22	MFWD 170	23,550	150	8	0.138	3.26	2.09	1.22	0.69	7.27	2.24	4.21	13.72
Plant & Pre Rigid	8R-30	MFWD 170	47,800	150	8	0.101	2.40	1.53	1.82	0.50	6.26	3.35	3.09	12.71
Plant & Pre Rigid	8R-38	MFWD 170	45,700	150	8	0.080	1.89	1.21	1.37	0.40	4.89	2.53	2.44	9.87
Plant & Pre Rigid	10R-30	MFWD 190	46,000	150	8	0.081	1.92	1.37	1.40	0.47	5.17	2.58	2.92	10.68
Plant & Pre Rigid	12R-20	MFWD 190	55,700	150	8	0.101	2.40	1.71	2.12	0.59	6.84	3.90	3.65	14.40
Plant & Pre Rigid	12R-30	MFWD 190	72,700	150	8	0.067	1.60	1.14	1.84	0.39	4.99	3.40	2.43	10.82
Plant - Folding	8R-38	MFWD 170	53,700	150	8	0.074	1.76	1.12	1.50	0.37	4.76	2.76	2.27	9.80
Plant - Folding	8R-38 2x1	MFWD 170	83,400	150	8	0.049	1.17	0.75	1.55	0.24	3.72	2.85	1.51	8.09
Plant - Folding	10R-30	MFWD 190	47,426	150	8	0.075	1.78	1.27	1.34	0.44	4.84	2.47	2.71	10.03
Plant - Folding	10R-38	MFWD 190	43,011	150	8	0.059	1.40	1.00	0.95	0.35	3.72	1.76	2.14	7.63
Plant - Folding	12R-20	MFWD 190	65,200	150	8	0.094	2.23	1.59	2.30	0.55	6.68	4.24	3.39	14.32
Plant - Folding	12R-30	MFWD 190	71,700	150	8	0.062	1.48	1.06	1.69	0.37	4.61	3.11	2.26	9.98
Plant - Folding	12R-38	MFWD 190	83,400	150	8	0.049	1.17	0.83	1.55	0.29	3.85	2.85	1.78	8.50
Plant - Folding	16R-30	MFWD 190	114,000	150	8	0.047	1.11	0.79	2.01	0.27	4.20	3.71	1.69	9.61
Plant - Folding	23R-15	MFWD 190	157,000	150	8	0.065	1.54	1.10	3.85	0.38	6.89	7.10	2.35	16.35
Plant - Folding	24R-20	MFWD 190	177,000	150	8	0.047	1.11	0.79	3.12	0.27	5.32	5.76	1.69	12.78
Plant - Folding	24R-30	MFWD 190	184,000	150	8	0.031	0.74	0.53	2.16	0.18	3.62	3.99	1.13	8.75
Plant - Rigid	4R-30	2WD 130	24,200	150	8	0.188	4.46	2.18	1.71	0.66	9.02	3.15	3.86	16.04
Plant - Rigid	4R-38	2WD 130	25,300	150	8	0.148	3.51	1.71	1.40	0.52	7.16	2.59	3.04	12.80
Plant - Rigid	6R-30	MFWD 150	32,000	150	8	0.125	2.97	1.67	1.50	0.56	6.72	2.77	3.26	12.76
Plant - Rigid	6R-38	MFWD 150	31,100	150	8	0.099	2.34	1.32	1.15	0.44	5.27	2.13	2.57	9.98
Plant - Rigid	8R-22	MFWD 170	18,473	150	8	0.127	3.02	1.93	0.88	0.63	6.48	1.63	3.89	12.01
Plant - Rigid	8R-30	MFWD 170	40,900	150	8	0.094	2.23	1.42	1.44	0.47	5.57	2.66	2.87	11.11
Plant - Rigid	8R-38	MFWD 170	38,400	150	8	0.074	1.76	1.12	1.07	0.37	4.33	1.97	2.27	8.58
Plant - Rigid	10R-30	MFWD 190	40,700	150	8	0.075	1.78	1.27	1.15	0.44	4.65	2.12	2.71	9.49
Plant - Rigid	12R-20	MFWD 190	48,300	150	8	0.094	2.23	1.59	1.70	0.55	6.09	3.14	3.39	12.63
Plant - Rigid	12R-30	MFWD 190	63,400	150	8	0.062	1.48	1.06	1.49	0.37	4.41	2.75	2.26	9.43
Plant - Rigid	15R-15	2WD 150	60,200	150	8	0.094	2.23	1.25	2.12	0.32	5.94	3.92	1.90	11.76
Pull Levee (1m/80a))	4 blade	2WD 50	3,180	100	10	0.003	0.04	0.01	0.00	0.00	0.06	0.01	0.02	0.09
Roller	32'	MFWD 170	22,800	100	12	0.046	0.55	0.70	0.17	0.23	1.66	0.96	1.42	4.05
Rotary Cutter	7'	MFWD 130	4,500	185	10	0.168	1.99	1.94	0.61	0.66	5.21	0.41	3.85	9.48
Rotary Cutter	12'	2WD 150	13,100	185	10	0.098	1.16	1.31	1.04	0.34	3.85	0.70	1.97	6.54
Rotary Cutter	15'	MFWD 150	22,100	185	10	0.078	0.92	1.04	1.40	0.35	3.73	0.95	2.04	6.73

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Louisiana 2021.

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
-----\$/acre-----														
Row Cond & Inc	13'	2WD 130	16,000	100	10	0.137	2.44	1.59	0.55	0.48	5.08	2.25	2.83	10.16
Row Cond & Inc	21'	2WD 170	21,600	100	10	0.085	1.51	1.29	0.46	0.42	3.69	1.88	2.60	8.18
Row Cond & Inc	26'	MFWD 190	28,500	100	10	0.063	1.12	1.07	0.45	0.37	3.02	1.84	2.28	7.14
Row Cond & Inc	38'	MFWD 225	38,000	100	10	0.047	0.83	0.94	0.44	0.34	2.57	1.82	2.09	6.49
Row Cond & Inc	42'	MFWD 225	20,400	100	10	0.040	0.71	0.80	0.20	0.29	2.01	0.83	1.78	4.63
Row Cond (Harrow)	13'	2WD 130	7,300	100	10	0.114	1.35	1.32	0.20	0.40	3.30	0.85	2.35	6.51
Row Cond (Harrow)	21'	2WD 170	12,000	100	10	0.071	0.84	1.07	0.21	0.35	2.48	0.87	2.16	5.52
Row Cond (Harrow)	27'	MFWD 190	12,400	100	10	0.057	0.67	0.97	0.17	0.33	2.16	0.72	2.06	4.96
Row Cond (Harrow)	38'	MFWD 225	22,200	100	10	0.039	0.46	0.78	0.21	0.28	1.75	0.88	1.74	4.39
Row Cond (Harrow)	42'	MFWD 225	15,582	100	10	0.035	0.42	0.71	0.13	0.25	1.53	0.56	1.57	3.67
Row Cond (Plant)	13'	2WD 130	7,120	100	10	0.157	1.85	1.81	0.27	0.55	4.51	1.14	3.22	8.88
Row Cond (Plant)	21'	2WD 170	11,700	100	10	0.097	1.15	1.47	0.28	0.48	3.39	1.16	2.96	7.52
Row Cond (Plant)	27'	MFWD 190	12,400	100	10	0.078	0.92	1.32	0.24	0.46	2.96	0.99	2.82	6.79
Row Cond (Plant)	38'	MFWD 225	16,587	100	10	0.053	0.63	1.07	0.22	0.39	2.32	0.90	2.38	5.62
Row Cond (Plant)	42'	MFWD 225	15,582	100	10	0.048	0.57	0.97	0.18	0.35	2.09	0.77	2.15	5.02
RT Cult (Early)	8R-30	2WD 170	20,774	200	12	0.103	1.22	1.56	1.02	0.51	4.32	1.00	3.14	8.46
RT Cult (Early)	12R-30	2WD 190	29,998	200	12	0.068	0.81	1.16	0.98	0.30	3.27	0.96	1.87	6.10
RT Cult (Late)	8R-30	2WD 170	20,774	200	12	0.128	1.52	1.95	1.28	0.64	5.40	1.25	3.92	10.58
RT Cult (Late)	12R-30	2WD 190	29,998	200	12	0.085	1.01	1.45	1.23	0.38	4.09	1.20	2.34	7.63
RT Cult + PD (Early)	8R-30	2WD 150	20,774	200	12	0.110	1.95	1.46	1.09	0.38	4.89	1.06	2.21	8.18
RT Cult + PD (Early)	12R-30	MFWD 225	29,998	200	12	0.073	1.30	1.46	1.05	0.53	4.35	1.02	3.25	8.64
RT Cult + PD (Late)	8R-30	2WD 170	26,264	200	12	0.137	2.43	2.08	1.73	0.68	6.93	1.68	4.19	12.81
RT Cult + PD (Late)	12R-30	2WD 190	35,493	200	12	0.091	1.62	1.55	1.55	0.40	5.14	1.52	2.49	9.16
SC 3Row (Cover)	18 ft	MFWD 150	10,750	200	9	0.120	1.42	1.60	1.43	0.53	5.01	0.41	3.12	8.55
SC 3Row (Hipper)	18 ft	MFWD 150	10,500	200	9	0.120	1.42	1.60	0.68	0.53	4.24	0.80	3.11	8.17
SC 3Row (Marker)	18 ft	MFWD 150	8,800	200	9	0.120	1.42	1.60	0.58	0.53	4.14	0.67	3.11	7.94
SC 3Row (Offbar)	18 ft	MFWD 150	11,500	200	10	0.120	1.42	1.60	0.69	0.53	4.25	0.81	3.11	8.18
SC 3Row (Opener)	18 ft	MFWD 150	7,800	200	10	0.120	1.42	1.60	0.46	0.53	4.02	0.55	3.11	7.69
SC 3Row Plow	18 ft	MFWD 190	17,000	200	9	0.120	1.42	2.03	1.11	0.70	5.27	1.30	4.32	10.90
SC Blade	8 ft	MFWD 150	3,500	100	12	0.877	10.37	11.71	2.55	3.91	28.57	2.05	22.78	53.40
SC Boom Sprayer	16 ft	MFWD 150	2,900	150	10	0.120	1.42	1.60	0.25	0.53	3.81	0.27	3.11	7.20
SC Burning Unit	18 ft	2WD 105	1,300	85	6	0.149	1.77	1.40	0.24	0.33	3.75	0.41	1.93	6.10
SC Cane Planters Aid	6 ft	MFWD 150	4,500	20	20	1.000	11.83	13.35	8.43	4.46	38.09	16.57	25.97	80.64
SC Cane Plt-1R Bille	1 row	MFWD 150	22,000	150	20	0.670	7.92	8.94	3.68	2.99	23.55	7.24	17.40	48.19
SC Cane Plt-3R Bille	3 row	2WD 50	34,000	50	20	0.200	2.36	0.89	5.10	0.19	8.54	10.02	1.12	19.69
SC Cane Plt-Whlstalk	6 ft	MFWD 150	22,000	150	20	0.670	7.92	8.94	3.68	2.99	23.55	7.24	17.40	48.19
SC Cane Wagon 10T	10 Ton	MFWD 150	7,500	400	15	0.500	6.50	7.34	0.62	2.45	16.93	0.82	12.98	30.74
SC Cane Wgn Billt HD	10Ton	MFWD 150	40,000	750	9	0.600	7.80	8.81	5.33	2.94	24.90	3.95	15.58	44.44
SC Chisel Plow	13 ft	MFWD 190	6,000	200	6	0.219	2.60	3.71	0.96	1.29	8.58	1.18	7.91	17.67
SC Chisel Plow	23 ft	MFWD 190	12,000	200	6	0.120	1.42	2.03	0.49	0.70	4.65	1.28	4.32	10.26
SC Cultimulcher	12 ft	2WD 105	5,500	120	15	0.110	1.30	1.02	0.29	0.24	2.87	0.44	1.42	4.73
SC Cultivate + Post	6 Row	2WD 170	8,200	200	10	0.110	1.30	1.66	0.39	0.55	3.91	0.53	3.35	7.80
SC Cultivator	30" 6 Row	2WD 150	5,350	200	10	0.140	1.65	1.87	0.32	0.48	4.34	0.44	2.82	7.60
SC Disk	12 ft	2WD 50	8,500	200	10	0.149	1.77	0.66	0.56	0.14	3.14	0.75	0.84	4.74
SC Disk	20 ft	MFWD 190	17,500	200	10	0.100	1.18	1.69	0.77	0.59	4.23	1.03	3.60	8.87
SC Disk	26 ft	2WD 170	21,000	200	10	0.069	0.82	1.05	0.64	0.34	2.88	0.86	2.13	5.88
SC Disk + Pre	6 row	2WD 170	9,250	200	10	0.100	1.18	1.51	0.40	0.50	3.60	0.54	3.04	7.19
SC Double Hitch	DBLHTCH	2WD 50	0	1000	10	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SC Drain Cleaner	6 ft	MFWD 75	3,750	300	9	0.080	0.94	0.53	0.13	0.10	1.71	0.12	0.60	2.45
SC Fert 3Row Lq App	18 ft	MFWD 150	7,000	200	10	0.130	1.53	1.73	0.36	0.58	4.22	0.53	3.37	8.13
SC Fert DrySlingApp	42 ft	MFWD 150	6,500	150	10	0.059	0.70	0.80	0.22	0.26	2.00	0.30	1.55	3.87
SC Flat Roller	18 ft	MFWD 150	1,400	75	9	0.190	2.24	2.53	0.47	0.84	6.11	0.45	4.93	11.50
SC Hauling Hitch	6 ft	4WD 225	1,000	500	15	1.000	11.83	20.03	0.13	4.59	36.59	0.17	28.01	64.78
SC Land Plane	15 ft	MFWD 150	10,000	200	15	0.300	3.55	4.01	0.66	1.34	9.56	1.32	7.79	18.69
SC Rotary Ditcher	6 ft	MFWD 150	12,500	100	10	0.250	2.95	3.33	3.12	1.11	10.53	3.69	6.49	20.72
SC Rotary Hoe	18 ft	2WD 130	4,500	75	12	0.080	0.94	0.92	0.41	0.28	2.56	0.48	1.64	4.69
SC Rotary Mower	13.1 ft	MFWD 75	7,000	150	10	0.250	2.95	1.66	0.51	0.32	5.46	1.37	1.89	8.74
SC Rototiller	18 ft	MFWD 190	20,000	150	10	0.219	2.60	3.71	3.51	1.29	11.13	3.46	7.91	22.51
SC Tractor Blade	6 ft	2WD 105	3,500	100	15	1.000	11.83	9.34	0.86	2.22	24.26	3.09	12.93	40.28
SC Tractor Spreader	20 ft	2WD 105	700	150	10	0.110	1.30	1.02	0.04	0.24	2.61	0.06	1.42	4.10
SC Trailer Utility	10 ft	2WD 130	2,000	200	15	1.000	11.83	11.57	0.23	3.53	27.17	0.88	20.52	48.57
SCMechanical Planter	6 ft	MFWD 150	15,500	160	10	1.000	11.83	13.35	7.26	4.46	36.92	11.45	25.97	74.34
Spin Spreader	5 ton	MFWD 190	11,600	100	8	0.042	0.99	0.71	0.27	0.24	2.23	0.53	1.51	4.27
Spin Spreader	5 ton	MFWD 190	11,600	100	8	0.042	0.99	0.71	0.27	0.24	2.23	0.53	1.51	4.27
Spray (Band)	27'	MFWD 170	7,400	200	8	0.062	1.11	0.94	0.21	0.31	2.59	0.25	1.91	4.75
Spray (Band)	40'	MFWD 170	9,300	200	8	0.042	0.75	0.64	0.18	0.21	1.78	0.21	1.28	3.29
Spray (Band)	50'	MFWD 170	10,100	200	8	0.033	0.60	0.51	0.16	0.16	1.44	0.18	1.03	2.66
Spray (Band)	53'	MFWD 170	9,940	200	8	0.031	0.56	0.48	0.14	0.15	1.35	0.17	0.97	2.50
Spray (Band)	60'	MFWD 170	13,200	200	8	0.028	0.50	0.42	0.17	0.14	1.24	0.20	0.85	2.30
Spray (Bcast/HB)	13' Rigid	MFWD 150	7,860	200	8	0.130	2.31	1.73	0.47	0.58	5.11	0.55	3.38	9.04
Spray (Bcast/HB)	20' Rigid	2WD 50	9,400	200	8	0.084	1.50	0.37	0.37	0.08	2.33	0.43	0.47	3.24
Spray (Bcast/HB)	27' Fold	MFWD 170	16,200	200	8	0.062	1.11	0.94	0.47	0.31	2.85	0.55	1.91	5.31

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, (Continued) and direct and fixed cost per acre, Louisiana 2021.

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---		Total Direct	--Fixed--		Total Cost
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/acre-----							
Spray (Bcast/HB)	27' Rigid	MFWD 170	10,900	200	8	0.062	1.11	0.94	0.32	0.31	2.69	0.37	1.91	4.97
Spray (Bcast/HB)	30' Fold	MFWD 170	18,900	200	8	0.056	1.00	0.85	0.49	0.28	2.63	0.58	1.71	4.93
Spray (Bcast/HB)	40' Fold	MFWD 170	19,100	200	8	0.042	0.75	0.64	0.37	0.21	1.98	0.44	1.28	3.71
Spray (Bcast/HB/HD)	27'	MFWD 170	22,400	200	8	0.062	1.11	0.94	0.65	0.31	3.03	0.76	1.91	5.70
Spray (Bcast/HB/HD)	40'	MFWD 170	32,200	200	8	0.042	0.75	0.64	0.63	0.21	2.24	0.74	1.28	4.27
Spray (Broadcast)	27'	MFWD 170	7,400	200	8	0.062	1.11	0.94	0.21	0.31	2.59	0.25	1.91	4.75
Spray (Broadcast)	40'	MFWD 170	9,300	200	8	0.042	0.75	0.64	0.18	0.21	1.78	0.21	1.28	3.29
Spray (Broadcast)	50'	MFWD 170	10,100	200	8	0.033	0.60	0.51	0.16	0.16	1.44	0.18	1.03	2.66
Spray (Broadcast)	53'	MFWD 170	9,940	200	8	0.031	0.56	0.48	0.14	0.15	1.35	0.17	0.97	2.50
Spray (Broadcast)	60'	MFWD 170	13,200	200	8	0.028	0.50	0.42	0.17	0.14	1.24	0.20	0.85	2.30
Spray (Direct/Hood)	8R-30	MFWD 170	17,000	200	8	0.084	1.50	1.28	0.67	0.42	3.87	0.78	2.57	7.24
Spray (Direct/Hood)	8R-38	MFWD 170	17,900	200	8	0.066	1.18	1.01	0.56	0.33	3.09	0.65	2.03	5.78
Spray (Direct/Hood)	12R-30	MFWD 170	23,900	200	8	0.056	1.00	0.85	0.63	0.28	2.76	0.73	1.71	5.22
Spray (Direct/Hood)	12R-38	MFWD 170	25,100	200	8	0.044	0.79	0.67	0.52	0.22	2.21	0.60	1.35	4.17
Spray (Direct/Layby)	8R-30	MFWD 170	15,500	200	8	0.084	1.50	1.28	0.61	0.42	3.82	0.71	2.57	7.11
Spray (Direct/Layby)	8R-38	MFWD 170	15,500	200	8	0.066	1.18	1.01	0.48	0.33	3.01	0.56	2.03	5.62
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	19,400	200	8	0.044	0.79	0.67	0.40	0.22	2.09	0.47	1.35	3.91
Spray (Direct/Layby)	10R-30	MFWD 170	12,200	200	8	0.067	1.20	1.02	0.38	0.33	2.95	0.44	2.06	5.46
Spray (Direct/Layby)	12R-30	MFWD 170	19,400	200	8	0.056	1.00	0.85	0.51	0.28	2.64	0.59	1.71	4.96
Spray (Direct/Layby)	12R-38	MFWD 170	19,400	200	8	0.044	0.79	0.67	0.40	0.22	2.09	0.47	1.35	3.91
Spray (Direct/Layby)	16R-20	MFWD 170	22,300	200	8	0.063	1.12	0.95	0.66	0.31	3.06	0.77	1.93	5.76
Spray (Spot)	27'	MFWD 170	7,400	200	8	0.062	1.11	0.94	0.21	0.31	2.59	0.25	1.91	4.75
Spray (Spot)	40'	MFWD 170	9,300	200	8	0.042	0.75	0.64	0.18	0.21	1.78	0.21	1.28	3.29
Spray (Spot)	50'	MFWD 170	13,700	200	8	0.033	0.60	0.51	0.21	0.16	1.49	0.25	1.03	2.78
Spray (Spot)	53'	MFWD 170	10,100	200	8	0.031	0.56	0.48	0.15	0.15	1.36	0.17	0.97	2.50
Spray (Spot)	60'	MFWD 170	15,600	200	8	0.028	0.50	0.42	0.20	0.14	1.27	0.23	0.85	2.37
Stalk Shredder	14'	MFWD 150	14,900	200	10	0.117	1.39	1.57	1.53	0.52	5.03	0.89	3.06	8.98
Stalk Shredder	20'	MFWD 150	33,100	200	10	0.082	0.97	1.10	2.38	0.36	4.83	1.39	2.14	8.37
Stalk Shredder-Flail	12'	MFWD 150	21,700	200	10	0.137	1.62	1.83	2.61	0.61	6.68	1.52	3.57	11.78
Stalk Shredder-Flail	20'	MFWD 150	30,400	200	10	0.082	0.97	1.10	2.19	0.36	4.64	1.27	2.14	8.06
Subsoiler	3 shank	MFWD 190	6,360	100	15	0.204	2.41	3.45	0.43	1.20	7.51	1.02	7.35	15.89
Subsoiler	4 shank	MFWD 225	11,210	100	15	0.153	1.81	3.07	0.57	1.11	6.58	1.35	6.81	14.76
Subsoiler	5 shank	MFWD 225	14,300	100	15	0.122	1.44	2.45	0.58	0.89	5.37	1.37	5.43	12.18
Subsoiler low-till	4 shank	MFWD 225	9,830	100	15	0.153	1.81	3.07	0.50	1.11	6.51	1.18	6.81	14.52
Subsoiler low-till	6 shank	MFWD 225	19,400	100	15	0.102	1.20	2.04	0.66	0.74	4.66	1.55	4.53	10.75
Subsoiler low-till	8 shank	MFWD 225	21,400	100	15	0.076	0.90	1.53	0.54	0.55	3.54	1.28	3.39	8.22
TerraTill Bed w/roll	4R-38	MFWD 225	14,300	150	12	0.160	1.90	3.22	0.83	1.17	7.12	1.38	7.14	15.65
TerraTill Bed w/roll	6R-38	MFWD 225	19,400	150	12	0.107	1.27	2.15	0.75	0.78	4.96	1.25	4.77	10.99
TerraTill Bed w/roll	4R-30	MFWD 225	14,300	150	12	0.204	2.41	4.09	1.05	1.48	9.05	1.75	9.06	19.88
TerraTill Bed w/roll	6R-30	MFWD 225	15,310	150	12	0.136	1.61	2.72	0.75	0.99	6.08	1.25	6.04	13.38