

Projected Costs and Returns Crop Enterprise Budgets for Wheat Production in Louisiana, 2015

Michael A. Deliberto, Michael E. Salassi and Brian M. Hilbun



**Farm Management Research & Extension
Department of Agricultural Economics & Agribusiness
Louisiana State University Agricultural Center
A.E.A. Information Series No. 306 - January 2015**

January 2015

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Introduction

This publication presents estimates of projected costs and returns for wheat production in Louisiana for the 2015 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 2015 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 2015 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 \$9.60 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 3.40% per year. Operating capital was assumed to be borrowed in a manner consistent with timely acquisition of inputs. Fuel prices for diesel and gasoline were \$2.75 per gallon and \$3.40 per gallon, respectively. 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. As the primary purpose of this report is to estimate production costs associated with a specific commodity, no charges for general farm overhead are included.

Land and Management Charges

The estimated production expenses included in this report include only direct and fixed expenses associated with the production of the specific crop enterprise. Labor charges included in the enterprise budgets only include charges for field labor. No charges for management are included. In addition, no charges for land are included in the enterprise cost tables. Following each set of enterprise cost tables, two sets of net return tables are included. One set, representing owner operators, includes estimates of net returns above direct and total specified costs, which would represent returns to land, management and general farm overhead. Another set, representing tenant operators, includes estimates net returns above direct and total specified costs with a crop share taken out of revenue, representing net returns to management and general farm overhead.

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

Table 1.A Estimated costs per Acre
Wheat, 8-row equipment, drill planted, non-irrigated,
alluvial soil, Northeast Louisiana, 2015.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air (5 gal)	appl	6.00	1.0000	6.00	_____
App by Air (3 gal)	appl	4.75	2.0000	9.50	_____
FERTILIZERS					
LA Phosphate	lb	0.61	40.0000	24.40	_____
LA Potash	lb	0.34	40.0000	13.60	_____
LA Nitrogen	lb	0.50	90.0000	45.00	_____
HERBICIDES					
Harmony Extra	oz	14.35	0.4500	6.46	_____
INSECTICIDES					
Mustang Max	oz	1.60	4.0000	6.40	_____
Karate Z	oz	3.40	2.1300	7.24	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.32	90.0000	28.80	_____
ADJUVANTS					
Surfactant	pt	3.60	0.2000	0.72	_____
CUSTOM FERT/LIME					
Lime (Spread)	ton	48.00	0.3300	15.84	_____
App Fert by Air(Min)	appl	6.50	1.0000	6.50	_____
CUSTOM HARVEST/HAUL					
Haul Wheat	bu	0.26	60.0000	15.60	_____
OPERATOR LABOR					
Harvesters	hour	12.55	0.0851	1.07	_____
LA Hired Labor					
Implements	hour	9.60	0.1097	1.05	_____
Tractors	hour	9.60	0.2785	2.66	_____
DIESEL FUEL					
Tractors	gal	2.74	2.9104	7.99	_____
Harvesters	gal	2.74	1.2047	3.30	_____
REPAIR & MAINTENANCE					
Implements	Acre	3.80	1.0000	3.80	_____
Tractors	Acre	1.64	1.0000	1.64	_____
Harvesters	Acre	2.58	1.0000	2.58	_____
INTEREST ON OP. CAP.	Acre	3.71	1.0000	3.71	_____

TOTAL DIRECT EXPENSES				213.86	_____
FIXED EXPENSES					
Implements	Acre	7.49	1.0000	7.49	_____
Tractors	Acre	9.96	1.0000	9.96	_____
Harvesters	Acre	9.88	1.0000	9.88	_____

TOTAL FIXED EXPENSES				27.33	_____

TOTAL SPECIFIED EXPENSES				241.19	_____

Table 1.B Estimated resource use and costs for field operations, per Acre
Wheat, 8-row equipment, drill planted, non-irrigated,
alluvial soil, Northeast Louisiana, 2015.

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-----			
Spin Spreader	5 ton	MFWD 190	0.042	1.00	Oct	1.34	1.28	0.26	0.50	0.08	0.80				4.18
LA Phosphate	lb											40.0000	0.61	24.40	24.40
LA Potash	lb											40.0000	0.34	13.60	13.60
Lime (Spread)	ton			0.33	Oct							0.3300	48.00	15.84	15.84
Disk Harrow	28'	MFWD 225	0.070	1.00	Oct	2.73	3.02	0.88	1.80	0.07	0.67				9.10
Row Cond (Plant)	27'	MFWD 190	0.078	1.00	Oct	2.50	2.40	0.24	0.99	0.07	0.75				6.88
Ditcher		2WD 130	0.020	1.00	Oct	0.43	0.35	0.04	0.05	0.02	0.19				1.06
Grain Drill & Pre	30'	MFWD 225	0.067	1.00	Dec	2.63	2.91	1.74	3.21	0.13	1.30				11.79
Wheat Seed Private	lb											90.0000	0.32	28.80	28.80
App by Air (5 gal)	appl			1.00	Dec							1.0000	6.00	6.00	6.00
Harmony Extra	oz											0.4500	14.35	6.46	6.46
Surfactant	pt											0.2000	3.60	0.72	0.72
App Fert by Air(Min)	appl			1.00	Feb							1.0000	6.50	6.50	6.50
LA Nitrogen	lb											90.0000	0.50	45.00	45.00
App by Air (3 gal)	appl			1.00	Feb							1.0000	4.75	4.75	4.75
Mustang Max	oz											4.0000	1.60	6.40	6.40
App by Air (3 gal)	appl			1.00	Apr							1.0000	4.75	4.75	4.75
Karate Z	oz											2.1300	3.40	7.24	7.24
Header Wheat/Sorghum	30'	Rigid 275hp	0.085	1.00	May	5.88	9.88	0.64	0.94	0.08	1.07				18.41
Haul Wheat	bu			1.00	May							60.0000	0.26	15.60	15.60
TOTALS						15.51	19.84	3.80	7.49	0.47	4.78			186.06	237.48
INTEREST ON OPERATING CAPITAL															3.71
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															241.19

Table 1.C Breakeven price above direct expenses and net returns for price/yield combinations, per Acre
Wheat, 8-row equipment, drill planted, non-irrigated,
alluvial soil, Northeast Louisiana, 2015.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.46	2.62	2.80	3.01	3.26	3.56	3.93	4.38	4.97	5.76	6.86
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-131	-127	-121	-115	-107	-98	-87	-74	-56	-32	0
			-159	-154	-149	-142	-135	-126	-115	-101	-83	-60	-27
60	36.00	bu	-118	-113	-106	-98	-89	-79	-65	-49	-28	0	39
			-146	-140	-133	-126	-117	-106	-93	-76	-55	-27	12
70	42.00	bu	-105	-98	-91	-82	-71	-59	-43	-24	0	32	79
			-132	-126	-118	-109	-99	-86	-71	-52	-27	5	51
80	48.00	bu	-92	-84	-76	-65	-53	-39	-21	0	28	65	118
			-119	-112	-103	-93	-81	-66	-49	-27	0	38	91
90	54.00	bu	-79	-70	-60	-49	-35	-19	0	24	56	98	158
			-106	-97	-88	-76	-63	-47	-27	-2	29	71	130
100	60.00	bu	-65	-56	-45	-32	-17	0	21	49	84	131	197
			-93	-83	-72	-60	-45	-27	-5	22	57	104	170
110	66.00	bu	-52	-42	-30	-16	0	19	43	74	113	164	237
			-80	-69	-57	-43	-27	-7	16	46	85	137	210
120	72.00	bu	-39	-28	-15	0	17	39	65	98	141	197	277
			-66	-55	-42	-27	-9	12	38	71	113	170	249
130	78.00	bu	-26	-14	0	16	35	59	87	123	169	230	316
			-53	-41	-27	-10	8	32	60	96	142	203	289
140	84.00	bu	-13	0	15	32	53	79	109	148	197	263	356
			-40	-27	-12	5	26	51	82	121	170	236	328
150	90.00	bu	0	14	30	49	71	98	131	173	226	296	395
			-27	-13	3	22	44	71	104	145	198	269	368

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
Wheat, 8-row equipment, drill planted, non-irrigated,
alluvial soil, Northeast Louisiana, 2015.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.76	2.94	3.15	3.39	3.67	4.01	4.43	4.95	5.62	6.52	7.77
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-122	-117	-111	-104	-95	-85	-72	-57	-37	-10	27
			-150	-144	-138	-131	-122	-112	-100	-84	-64	-37	0
60	36.00	bu	-107	-101	-93	-85	-75	-62	-47	-28	-4	27	72
			-135	-128	-121	-112	-102	-90	-75	-56	-32	0	45
70	42.00	bu	-92	-85	-76	-66	-54	-40	-22	-0	27	64	117
			-120	-112	-103	-93	-81	-67	-50	-28	0	37	90
80	48.00	bu	-77	-69	-59	-47	-34	-17	2	27	59	102	162
			-105	-96	-86	-75	-61	-45	-25	0	32	75	135
90	54.00	bu	-62	-53	-41	-28	-13	4	27	55	91	139	207
			-90	-80	-69	-56	-40	-22	0	28	64	112	180
100	60.00	bu	-47	-37	-24	-10	6	27	52	83	123	177	252
			-75	-64	-51	-37	-20	0	25	56	96	150	225
110	66.00	bu	-32	-20	-7	8	27	49	77	111	156	214	297
			-60	-48	-34	-18	0	22	50	84	128	187	270
120	72.00	bu	-17	-4	10	27	47	72	102	139	188	252	342
			-45	-32	-17	0	20	45	75	112	160	225	315
130	78.00	bu	-2	11	27	46	68	94	127	168	220	290	387
			-30	-16	0	18	40	67	100	140	193	262	360
140	84.00	bu	12	27	44	64	88	117	152	196	252	327	432
			-15	0	17	37	61	90	125	168	225	300	405
150	90.00	bu	27	43	61	83	109	139	177	224	284	365	477
			0	16	34	56	81	112	150	197	257	337	450

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 and returns per Acre,
Wheat, 8-row equipment, drill planted, non-irrigated,
Clay soils, Southwest Louisiana, 2015.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
LARice GPS Charge-SW	acre	0.35	2.0000	0.70	_____
App by Air (5 gal)	appl	6.00	1.0000	6.00	_____
FERTILIZERS					
LA Nitrogen	lb	0.50	70.5000	35.25	_____
LA Phosphate	lb	0.61	45.0000	27.45	_____
LA Potash	lb	0.34	45.0000	15.30	_____
INSECTICIDES					
Methyl Parathion	pt	5.79	1.5000	8.69	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.32	75.0000	24.00	_____
CUSTOM FERT/LIME					
Custom Spread(Truc	appl	4.50	1.0000	4.50	_____
App Fert by Air	cwt	6.50	0.9000	5.85	_____
CUSTOM HARVEST/HAUL					
Haul Wheat	bu	0.26	60.0000	15.60	_____
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	9.60	0.2837	2.73	_____
DIESEL FUEL					
Tractors	gal	2.75	3.4985	9.61	_____
Self-Propelled	gal	2.75	1.4915	4.10	_____
REPAIR & MAINTENANCE					
Implements	acre	3.56	1.0000	3.56	_____
Tractors	acre	1.97	1.0000	1.97	_____
Self-Propelled	acre	8.40	1.0000	8.40	_____
INTEREST ON OP. CAP.	acre	3.32	1.0000	3.32	_____
TOTAL DIRECT EXPENSES				181.42	_____
FIXED EXPENSES					
Implements	acre	7.91	1.0000	7.91	_____
Tractors	acre	11.91	1.0000	11.91	_____
Self-Propelled	acre	12.42	1.0000	12.42	_____
TOTAL FIXED EXPENSES				32.24	_____
TOTAL SPECIFIED EXPENSES				213.66	_____

Table 2.B Estimated resource use and costs for field operations, per acre,
Wheat, 8-row equipment, drill planted, non-irrigated,
Clay soils, Southwest Louisiana, 2015.

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	32'	4WD 300	0.061	2.00	Nov	6.27	6.48	1.73	3.53	0.12	1.18				19.19
Custom Spread(Truc	appl			1.00	Nov							1.0000	4.50	4.50	4.50
LA Nitrogen	lb											30.0000	0.50	15.00	15.00
LA Phosphate	lb											45.0000	0.61	27.45	27.45
LA Potash	lb											45.0000	0.34	15.30	15.30
Field Cultivate	32'	4WD 300	0.046	1.00	Nov	2.38	2.46	0.46	1.88	0.04	0.45				7.63
Grain Drill	20'	MFWD 150	0.094	1.00	Nov	2.42	2.45	1.33	2.45	0.18	1.76				10.41
Wheat Seed Private	lb											75.0000	0.32	24.00	24.00
Ditcher		MFWD 150	0.020	1.00	Nov	0.51	0.52	0.04	0.05	0.02	0.19				1.31
App Fert by Air	cwt			1.00	Feb							0.9000	6.50	5.85	5.85
LA Nitrogen	lb											40.5000	0.50	20.25	20.25
LARice GPS Charge-SW	acre											1.0000	0.35	0.35	0.35
App by Air (5 gal)	appl			1.00	Apr							1.0000	6.00	6.00	6.00
Methyl Parathion	pt											1.5000	5.79	8.69	8.69
LARice GPS Charge-SW	acre											1.0000	0.35	0.35	0.35
LARice Combine Med		20 ft	0.210	1.00	May	12.50	12.42			0.23	3.54				28.46
Haul Wheat	bu			1.00	May							60.0000	0.26	15.60	15.60
TOTALS						24.08	24.33	3.56	7.91	0.60	7.12				210.34
INTEREST ON OPERATING CAPITAL															3.32
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															213.66

Table 2.C Breakeven price above direct expenses and net returns for price/yield combinations, per Acre
Wheat, 8-row equipment, drill planted, non-irrigated,
Clay soils, Southwest Louisiana, 2015.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.10	2.23	2.38	2.56	2.77	3.02	3.33	3.71	4.20	4.86	5.78
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-110	-106	-102	-96	-90	-82	-73	-62	-47	-27	0
			-142	-138	-134	-128	-122	-115	-105	-94	-79	-59	-32
60	36.00	bu	-99	-94	-89	-82	-75	-66	-55	-41	-23	0	33
			-131	-126	-121	-115	-107	-98	-87	-73	-55	-32	0
70	42.00	bu	-88	-82	-76	-69	-60	-49	-36	-20	0	27	66
			-120	-115	-108	-101	-92	-81	-69	-52	-32	-4	34
80	48.00	bu	-77	-71	-63	-55	-45	-33	-18	0	23	55	99
			-109	-103	-95	-87	-77	-65	-50	-32	-8	23	67
90	54.00	bu	-66	-59	-51	-41	-30	-16	0	20	47	82	132
			-98	-91	-83	-73	-62	-48	-32	-11	15	50	100
100	60.00	bu	-55	-47	-38	-27	-15	0	18	41	71	110	165
			-87	-79	-70	-59	-47	-32	-13	9	38	78	133
110	66.00	bu	-44	-35	-25	-13	0	16	36	62	94	138	198
			-76	-67	-57	-46	-32	-15	4	29	62	105	166
120	72.00	bu	-33	-23	-12	0	15	33	55	82	118	165	232
			-65	-55	-44	-32	-17	0	23	50	86	133	199
130	78.00	bu	-22	-11	0	13	30	49	73	103	142	193	265
			-54	-44	-32	-18	-2	17	41	71	109	161	232
140	84.00	bu	-11	0	12	27	45	66	92	124	165	221	298
			-43	-32	-19	-4	12	34	59	92	133	188	266
150	90.00	bu	0	11	25	41	60	82	110	145	189	248	331
			-32	-20	-6	9	28	50	78	112	157	216	299

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
Wheat, 8-row equipment, drill planted, non-irrigated,
Clay soils, Southwest Louisiana, 2015.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.46	2.61	2.79	3.01	3.26	3.56	3.92	4.38	4.97	5.76	6.86
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-99	-95	-89	-83	-75	-66	-55	-42	-24	-0	32
			-132	-127	-121	-115	-108	-99	-88	-74	-56	-33	0
60	36.00	bu	-86	-80	-74	-66	-57	-46	-33	-17	3	32	71
			-118	-113	-106	-99	-90	-79	-66	-49	-28	0	39
70	42.00	bu	-73	-66	-59	-50	-39	-27	-11	7	32	65	111
			-105	-99	-91	-82	-72	-59	-44	-24	0	33	79
80	48.00	bu	-60	-52	-43	-33	-21	-7	10	32	60	98	151
			-92	-84	-76	-66	-54	-39	-22	0	28	66	118
90	54.00	bu	-46	-38	-28	-17	-3	12	32	56	88	131	190
			-79	-70	-60	-49	-36	-19	0	24	56	99	158
100	60.00	bu	-33	-24	-13	-0	14	32	54	81	117	164	230
			-66	-56	-45	-33	-18	0	22	49	84	132	198
110	66.00	bu	-20	-10	1	15	32	52	76	106	145	197	269
			-52	-42	-30	-16	0	19	44	74	113	165	237
120	72.00	bu	-7	3	17	32	50	71	98	131	173	230	309
			-39	-28	-15	0	18	39	66	99	141	198	277
130	78.00	bu	5	18	32	48	68	91	120	155	201	263	349
			-26	-14	0	16	36	59	88	123	169	231	316
140	84.00	bu	19	32	47	65	86	111	142	180	230	296	388
			-13	0	15	33	54	79	110	148	198	264	356
150	90.00	bu	32	46	62	81	104	131	164	205	258	329	428
			0	14	30	49	72	99	132	173	226	297	396

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

Appendix Table 1. Operating Inputs: Estimated Prices for 2015.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Terraclor 2EC	pt	1.87
Crop Oil (Seed Oil)	pt	4.60	Terraclor Super X EC	pt	3.95
Crop Oil (Petroleum)	pt	3.60	Terraclor Super X G	lb	2.82
Surfactant	pt	3.60	Tilt 3.6 EC	oz	0.84
CUSTOM FERT/LIME			Vitavax 200	oz	0.47
App Fert by Air	cwt	6.50	Vitavax M Flowable	oz	1.06
App Fert by Air(Min)	appl	6.50	Vitavax RTU-Thiram	oz	0.40
Custom Apply Fert	acre	7.50	Vitavax T-L	oz	0.29
Custom Spread(Truc	appl	4.50	GIN/DRY		
Lime (Spread)	ton	48.00	Dry Corn	bu	0.19
CUSTOM HARVEST/HAUL			Dry Grain Sorghum	cwt	0.25
Custom Combine Rice	acre	0.00	Dry Rice	bu	0.40
Haul Corn	bu	0.23	Dry Rice (cwt)	cwt	0.90
Haul Cotton	lb	0.02	GROWTH REGULATORS		
Haul Sorghum	bu	0.25	Early Harvest PGR	oz	1.55
Haul Soybeans	bu	0.27	LA Polado	oz	0.38
Haul Wheat	bu	0.26	Mepex	oz	0.09
LARice Haul	cwt	0.30	PGR IV	oz	1.55
CUSTOM PLANT			Pix Plus	oz	0.19
LARice Air Plant NE	cwt	5.50	Pix Ultra	oz	0.39
LARice Air Plant SW	cwt	5.60	HARVEST AIDS		
CUSTOM SPRAY			Accelerate	pt	2.59
App by Air (2 gal)	appl	3.25	Ammonium Sulfate	lb	0.20
App by Air (3 gal)	appl	4.75	Boll'd	pt	7.01
App by Air (5 gal)	appl	6.00	CottonQuik	pt	4.25
App by Air (10 gal)	appl	8.00	Def 6	pt	8.25
LARice GPS Charge-SW	acre	0.35	Def/Folex	pt	8.62
LARice GPS Charge_NE	acre	0.25	Dropp 50 WP	lb	45.45
FERTILIZERS			Dropp SC	oz	1.09
Amm Nitrate (34% N)	cwt	22.50	Ethephon 6E	pt	3.27
Amm Sulfate (21% N)	cwt	18.60	Finish 6	pt	8.59
Fert 10-34-0	cwt	26.00	Folex 6EC	pt	7.55
Fert 41-0-0-4	cwt	23.50	Ginstar EC	pt	27.89
LA Nitrogen	lb	0.50	Gramoxone Extra	pt	4.86
LA Phosphate	lb	0.61	Gramoxone Inteon	oz	0.25
LA Potash	lb	0.34	Gramoxone Max	pt	4.06
Phosphorus(46% P2O5)	cwt	24.50	Harvade 5F	oz	0.67
Potash (60% K2O)	cwt	23.60	Leafless	pt	18.56
Sulfur	lb	0.26	Prep	pt	4.00
UAN (32% N)	cwt	18.50	Sodium Chlorate 3L	gal	3.50
UAN + Sulfur (28% N)	cwt	17.90	Solium Chlorate 6L	gal	5.57
Urea, Solid (46% N)	cwt	25.25	Starfire	pt	0.00
Zinc	lb	0.50	HERBICIDES		
FUNGICIDES			2,4-D Amine 4	pt	1.85
Apron Maxx RTA	oz	0.81	2,4-D Ester	pt	3.00
Apron XL	oz	7.93	AAtrex 4L	pt	2.08
Apron XL LS	oz	7.93	AAtrex NINE-O	lb	3.93
Benlate 50 WP	lb	15.95	Accent Gold	oz	6.12
Captan 4L	pt	2.83	Accent SP	oz	36.25
Captan 50 WP	lb	6.00	Aim 2EC	oz	7.19
Cruiser 5FS	oz	17.38	Aim DF	oz	9.65
Delta Coat AD	oz	3.75	Arrosolo	qt	7.88
Dithane F-45	qt	7.94	Assure II	oz	0.70
Dithane Rainsheild	lb	2.75	Atrazine 4L	pt	1.50
Fungicide	lb	2.82	Atrazine 90DF	lb	2.80
Gem 25 WG	oz	3.70	Authority 75DF	lb	26.95
Manzate 75 DF	lb	4.83	Axiom 68DF	lb	25.74
Manzate Flowable	pt	4.60	Backdraft	pt	2.40
Moncut 70 DF	lb	25.00	Banvel	pt	11.10
Orbit	oz	2.75	Basagran	pt	11.88
Prevail	lb	28.25	Basis Gold	lb	9.00
Quadris	oz	1.95	Beacon 75% WSP	oz	34.87
Ridomil GoldPC 10G	lb	2.08	Beyond	oz	4.29
Ridomil Gold PC	lb	4.00	Bicep II Magnum	qt	10.97
Ridomil Gold PC Liq	oz	6.54	Bicep II zmsgnum	qt	10.97
Rovral 4F	pt	14.20	Bladex 4L	qt	0.00
Rovral WG	lb	0.00	Bladex 90DF	lb	0.00
Shelter	oz	8.50	Blazer 2L	pt	0.00
Stiletto	oz	0.56			
Stratego	pt	24.91			
Terrachlor Flowable	pt	4.74			

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2015.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
HERBICIDES (CON'T)					
Blazer Ultra	pt	9.56	Hoelon 3EC	pt	11.03
Boa	pt	3.63	Karmex DF	lb	5.93
Bolero 8EC	pt	7.50	LA Asulox/Asulam	gal	37.00
Boundary	pt	10.05	LA Weedmaster	qt	6.50
Buctril 4EC	pt	17.06	Lariat	qt	7.49
Butoxone 175(2,4-DB)	pt	3.24	Lasso 4EC	qt	6.60
Butoxone 200(2,4-DB)	pt	3.92	Lasso II 15G	lb	0.00
Butyrac 175 (2,4-DB)	pt	3.27	Layby Pro	qt	6.30
Butyrac 200 (2,4-DB)	pt	4.20	Lexone 75DF	lb	18.90
Canopy 75%	oz	2.69	Liberty	pt	8.84
Canopy XL	oz	2.23	Lightning	oz	14.25
Caparol 4L	pt	3.69	Lightning	oz	14.25
Caparol Accu-Pak	lb	0.00	Linex 4L	pt	12.12
Celebrity Plus	lb	84.50	Londax 60DF	oz	17.25
Clarity	pt	11.88	Lorox 50DF	lb	18.70
Classic	oz	16.28	MSMA 6.6	pt	3.50
Clincher EC	oz	2.30	MSMA6 + Surfactant	pt	2.63
Cobra 2EC	oz	1.61	Newpath 2SL	oz	3.47
Command 3ME	pt	18.50	Ordram 15-G	lb	1.34
Command XTRA	pt	0.00	Ordram 8-E	pt	9.42
Conclude Ultra	pt	0.00	Outlook	pt	16.88
Conclude Ultra	pt	0.00	Pendimax 3.3	pt	2.47
Conclude XACT	pt	11.32	Permit 75DF	oz	18.50
Conclude XTRA	pt	8.32	Poast 1.53	pt	11.95
Cornerstone	pt	2.50	Poast Plus	pt	8.66
Cotoran 4L	pt	5.98	Propanil 4E	qt	5.15
Cotoran DF	lb	7.92	Prowl 3.3 EC	pt	3.44
Cotton Pro Flowable	pt	3.44	Pursuit DG	oz	11.59
Crossbow	pt	8.05	Pursuit Plus EC	pt	7.10
Cy-Pro 4L	qt	0.00	Python WDG	oz	13.04
Cypro 90DF	lb	0.00	Raptor	oz	4.18
Delta Goal	pt	9.44	Reflex 2LC	pt	7.04
Denim 0.16 EC	pt	24.06	Regiment 80WP	oz	4.38
Detail	pt	7.99	Remedy	pt	8.45
Direx 4L	pt	2.81	Resource .86EC	pt	28.75
Direx 80 DF	lb	7.37	Ricestar	pt	22.55
Diuron 4L	pt	2.81	Roundup Original	pt	6.00
Diuron 80 DF	lb	2.70	Roundup Original Max	oz	0.38
Domain 60DF	lb	12.75	Roundup Power Max	pt	3.16
DSMA 4	pt	0.90	Roundup Ultra MAX	pt	5.97
Dual 8E	pt	0.00	Roundup Ultra Dry	lb	6.14
Dual II Magnum	pt	14.50	Roundup WeatherMax	oz	0.27
Dual Magnum	pt	13.49	Scepter 70 DG	oz	4.52
Duet	pt	4.99	Select 2EC	oz	0.77
Evik DF 80W	lb	11.75	Sencor 4F	pt	14.74
Exceed	oz	10.71	Sencor DF	lb	11.20
Exceed Custom Pak	oz	11.50	Squadron CE	pt	12.50
Expert	pt	4.27	Stam 4E	qt	5.12
Facet 75DF	lb	50.00	Stam 80 EDF	lb	8.04
First Rate	oz	38.78	Staple 85%	oz	16.01
Flexstar HL	pt	4.50	Staple Plus	oz	8.55
FloMet 4L	pt	4.74	Steadfast	oz	11.85
Freedom	qt	2.51	Steel	pt	10.28
Front Row	oz	21.92	Storm	pt	11.50
Frontier 6.0	oz	0.63	Strongarm	oz	51.20
Fultime	pt	5.25	Superwham	qt	8.83
Fusilade DX	oz	1.14	Suprend	lb	12.92
Fusion	pt	27.00	Surpass 20G	lb	2.36
Glyphos	pt	1.80	Surpass EC	qt	26.25
Glyphomax	pt	3.49	Touchdown	qt	9.32
Glyphosate Plus 4L	pt	3.19	Touchdown 4 IQ	pt	3.33
Glystar Plus	pt	2.25	Touchdown Total	qt	6.74
Goal 2XL	pt	10.00	Treflan HFP	pt	2.90
Gramoxone Max	pt	5.46	Treflan TR-10	lb	1.10
Gramoxone Max	pt	4.06	Tri-Scept	pt	5.24
Grandstand R	qt	28.38	Trifluralin 4EC	pt	3.34
Guardzman	pt	4.66	Trilin 10G	lb	0.79
Guardzman Max	pt	6.93	Trilin 4EC	pt	2.12
Harmony Extra	oz	14.35	Typhoon	qt	13.06
			Valor WP	oz	4.23

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2015.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
HERBICIDES (CON'T)			Spintor 2SC	oz	4.93
Whip 360	pt	25.08	Steward	pt	29.30
Zorial Rapid 80DF	lb	14.10	Synthetic Pyrethroid	oz	0.00
INSECTICIDES			Temik 15G Grit	lb	4.00
Acephate 80SP	lb	0.00	Thimet 20-G	lb	3.60
Acephate 90SP	lb	7.23	Thionex 3EC	pt	4.65
Admire 2 Flowable	oz	4.78	Thionex 50W	lb	10.45
Ammo 2.5 EC	oz	0.92	Tracer	oz	9.73
Asana .66 XL	oz	0.64	Trimax	oz	1.85
Aztec 2.1% G	lb	3.68	Vydate C-LV	oz	0.89
Baythroid 2	oz	2.30	Warrior Z	oz	1.80
INSECTICIDES (CON'T)			Warrior ZT	oz	1.88
Bidrin 8L	oz	0.98	SEED/PLANTS		
Brigade EC	pt	15.10	Corn Seed Bt	thous	2.60
Brigade WSB	lb	21.00	Corn Seed BtRR	thous	3.47
Capture 2EC	oz	2.40	Corn Seed Conv.	thous	2.88
Carbamate	oz	0.00	Corn Seed RR	thous	3.08
Centric 40WG	oz	4.83	Corn Seed VT3	thous	2.84
Comite	pt	8.46	Corn Seed VT3Pro	thous	3.12
Condor XL	pt	0.00	Cotton Seed BG/RR	thous	0.62
Confirm 2F	oz	2.05	Cotton Seed BGII/RRF	thous	0.61
Counter 15G	lb	4.22	Cotton Seed Bt	thoud	0.28
Counter CR	lb	2.65	Cotton Seed BtRR	thous	0.74
Curacron 8E	pt	10.74	Cotton Seed Bxn	thous	0.00
Decis 1.5EC	oz	2.84	Cotton Seed Conv.	thous	0.00
Declare	pt	4.08	Cotton Seed Liberty	thous	1.05
Denim 0.16EC	pt	32.63	Cotton Seed Liberty	thous	1.05
Di-Syston 15G	lb	3.48	Cotton Seed RR	thous	0.63
Di-Syston 8	pt	14.32	Cotton Seed RR	thous	0.63
Diamond .83EC	pt	16.28	Cotton Seed WS	thous	0.49
Dimethoate 4E	pt	6.27	Cotton Seed WS/RR	thous	0.00
Dimilin 2L	oz	2.02	Cotton Seed WS/RRF	thous	0.59
Dipel DF	lb	13.50	Sorghum Concept	lb	2.28
Dipel ES	pt	5.00	Sorghum Hybrid Sudax	lb	1.20
Force 3G	lb	6.73	Sorghum NonConcept	lb	1.18
Furadan 3G	lb	0.00	Soybean Seed LL	lb	0.89
Furadan 4F	pt	9.81	Soybean Seed Private	lb	0.38
Fury 1.5 EC	oz	1.30	Soybean Seed Public	lb	0.00
Gaucho 480	oz	5.80	Soybean Seed RR	lb	1.11
Intrepid 2F	oz	1.76	Soybean Seed Stack	lb	1.28
Intruder 70WP	oz	9.65	Wheat Seed Private	lb	0.32
Karate Z	oz	3.40	Wheat Seed Public	lb	0.00
Lannate LV	pt	10.34	SERVICE FEE		
Lannate SP	oz	1.93	Cotton Checkoff	bale	2.56
Larvin 3.2	oz	0.63	Cotton Storage	bale	25.00
Leverage 2.7	oz	1.66	Crop Consultant	acre	7.00
Lorsban 15G	lb	2.15	Insect Scouting	acre	7.00
Lorsban 4E	pt	5.63	Rice Consultant	acre	7.00
Malathion 57EC	pt	4.23	SC Treating Charge	acre	0.00
Malathion 8E	pt	5.60	Survey & Mark Levees	acre	4.50
Malathion ULV	pt	4.93	Survey & Mark Levees	acre	4.50
Mepichlor 4.2% Liq	pt	5.91	BG Cot Tech Fee	thous	0.28
Methyl Parathion	pt	5.79	BG Cot Tech Fee	cap/ac	19.50
Monitor 4	pt	16.50	BG II Cot Tech Fee	thous	0.76
Monitor 4	pt	16.50	BG II Cot Tech Fee	cap/ac	31.91
Mustang Max	oz	1.60	BG II/RR Tech Fee	thous	1.49
Organophosphate	oz	0.00	BG II/RR Tech Fee	cap/ac	62.69
Orthene 90S	lb	5.75	BGII/RRF Cot Tech Fe	thous	1.49
Orthene 97	lb	10.59	BGII/RRF Cot Tech Fe	cap/ac	69.25
Ovasyn	pt	0.00	Eradication Fee	acre	6.00
Ovicide	oz	0.00	Eradication Zone 1	acre	6.00
Pennacap M	pt	6.71	Eradication Zone 1A	acre	6.00
Phaser 3E	qt	8.13	Eradication Zone 1B	acre	6.00
Pirate 3SC	oz	0.00	Eradication Zone 2	acre	6.00
Pounce 25WP	lb	12.85	Eradication Zone 3	acre	6.00
Pounce 3.2 EC	oz	0.91	Eradication Zone 4	acre	6.00
Provado 1.6F	oz	1.94	RR Cotton Tech Fee	thous	1.04
Scout X-TRA	oz	0.00	RR Cotton Tech Fee	cap/ac	43.66
Sevin 80S	lb	7.40	RR Cotton Tech Fee	thous	1.04
Sevin XLR Plus	qt	12.50	RR Cotton Tech Fee	cap/ac	43.66

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2015.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
SERVICE FEE (CON'T)					
RRF Cotton Tech Fee	thous	1.04			
RRF Cotton Tech Fee	cap/ac	48.25			

Appendix Table 2. Tractors: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Louisiana 2015.

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	12.55	26.79	0.00	39.34	0.00	39.34
Combine (200-249 hp)	240hp	161,548	300	8	12.35	12.55	33.83	16.82	63.21	64.41	127.63
Combine (225-274 hp)	Track250hp	0	300	8	12.87	12.55	35.26	0.00	47.81	0.00	47.81
Combine (250-299 hp)	275hp	291,000	300	8	14.15	12.55	38.77	30.31	81.63	116.03	197.67
Combine (250-299hp)	Grass295hp	218,222	300	8	15.18	12.55	41.59	22.73	76.87	87.01	163.89
Combine (275-299 hp)	Track290hp	0	300	8	14.93	12.55	40.90	0.00	53.45	0.00	53.45
Combine (300-349 hp)	325hp	325,000	300	8	16.73	12.55	45.84	33.85	92.24	129.59	221.84
Combine (300-349hp)	Track320hp	0	300	8	16.47	12.55	45.12	0.00	57.67	0.00	57.67
Combine (350-379 hp)	370hp	344,000	300	8	19.04	12.55	52.16	35.83	100.55	137.17	237.72
Combine (350-379 hp)	Track365hp	0	300	8	18.79	12.55	51.48	0.00	64.03	0.00	64.03
Cotton Stripper	173hp	170,000	200	8	8.08	12.55	22.13	26.56	61.25	101.68	162.93
Tractor(40-59hp)Cab	2WD 50	33,700	600	8	2.57	9.60	7.05	1.05	17.70	6.12	23.82
Tractor(40-59hp)Cab	MFWD 50	38,900	600	8	2.57	9.60	7.05	1.21	17.86	7.06	24.93
Tractor(40-59hp)RB	2WD 50	18,900	600	8	2.57	9.60	7.05	0.59	17.24	3.43	20.67
Tractor(40-59hp)RB	MFWD 50	26,200	600	8	2.57	9.60	7.05	0.81	17.47	4.75	22.22
Tractor(60-89hp)CAB	2WD 75	43,400	600	8	3.86	9.60	10.57	1.35	21.53	7.88	29.41
Tractor(60-89hp)CAB	MFWD 75	47,900	600	8	3.86	9.60	10.57	1.49	21.67	8.69	30.37
Tractor(60-89hp)RB	2WD 75	35,000	600	8	3.86	9.60	10.57	1.09	21.27	6.35	27.62
Tractor(60-89hp)RB	MFWD 75	39,600	600	8	3.86	9.60	10.57	1.23	21.41	7.19	28.60
Tractor(90-119hp)CB	2WD 105	63,100	600	8	5.40	9.60	14.80	1.97	26.38	11.45	37.84
Tractor(90-119hp)CB	MFWD 105	74,400	600	8	5.40	9.60	14.80	2.32	26.73	13.51	40.24
Tractor(90-119hp)RB	2WD 105	54,300	600	8	5.40	9.60	14.80	1.69	26.10	9.86	35.96
Tractor(90-119hp)RB	MFWD 105	56,900	600	8	5.40	9.60	14.80	1.77	26.18	10.33	36.52
Tractor(120-139hp)CB	2WD 130	96,300	600	8	6.69	9.60	18.33	3.00	30.94	17.48	48.43
Tractor(120-139hp)CB	MFWD 130	114,000	600	8	6.69	9.60	18.33	3.56	31.49	20.70	52.20
Tractor(140-159hp)CB	2WD 150	127,000	600	8	7.72	9.60	21.15	3.96	34.72	23.06	57.78
Tractor(140-159hp)CB	MFWD 150	143,000	600	8	7.72	9.60	21.15	4.46	35.22	25.97	61.19
Tractor(160-179hp)CB	2WD 170	156,000	600	8	8.75	9.60	23.97	4.87	38.45	29.71	68.16
Tractor(160-179hp)CB	MFWD 170	167,000	600	8	8.75	9.60	23.97	5.21	38.79	31.81	70.60
Tractor(160-199hp)CB	Track 180	142,710	600	8	9.26	9.60	25.38	4.45	39.44	27.18	66.63
Tractor(180-199hp)CB	2WD 190	143,000	600	8	9.77	9.60	26.79	4.46	40.86	27.24	68.10
Tractor(180-199hp)CB	MFWD 190	160,000	600	8	9.77	9.60	26.79	5.00	41.39	30.47	71.87
Tractor(200-249hp)CB	4WD 225	147,066	600	8	11.58	9.60	31.73	4.59	45.92	28.01	73.94
Tractor(200-249hp)CB	MFWD 225	226,000	600	8	11.58	9.60	31.73	7.06	48.39	43.05	91.44
Tractor(200-249hp)CB	Track 225	277,000	600	8	11.58	9.60	31.73	8.65	49.98	52.76	102.75
Tractor(250-349hp)CB	4WD 300	277,000	600	8	15.44	9.60	42.31	8.65	60.56	52.76	113.33
Tractor(250-349hp)CB	Track 300	281,000	600	8	15.44	9.60	42.31	8.78	60.69	53.52	114.22
Tractor(350-449hp)CB	4WD 400	313,000	600	8	20.58	9.60	56.41	9.78	75.79	59.62	135.41
Tractor(350-449hp)CB	Track 400	364,000	600	8	20.58	9.60	56.41	11.37	77.38	69.33	146.72
Tractor(450-uphp)CB	TRACK-475	279,879	600	8	24.44	9.60	66.99	8.74	85.33	53.31	138.65

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 2015.

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	2.51	0.68	0.43	3.62	2.00	5.62
Butt Levee (Backhoe)	70 HP	73,300	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	11.51	11.50	11.76	34.78	45.04	79.82
Cotton Picker-1st-BB	4R2X1260hp	317,399	200	8	13.33	0.172	3.81	6.29	8.54	18.65	32.71	51.36
Cotton Picker-1st-BB	4R30"250hp	262,000	200	8	12.86	0.327	7.25	11.54	13.40	32.19	51.30	83.50
Cotton Picker-1st-BB	4R30"325hp	350,000	200	8	18.01	0.327	7.25	16.15	17.90	41.31	68.53	109.84
Cotton Picker-1st-BB	4R38"255hp	267,000	200	8	13.12	0.257	5.70	9.27	10.75	25.73	41.16	66.90
Cotton Picker-1st-BB	4R38"325hp	406,000	200	8	18.01	0.257	5.70	12.72	16.35	34.78	62.59	97.38
Cotton Picker-1st-BB	5R30"255hp	285,000	200	8	12.86	0.261	5.80	9.22	11.66	26.69	44.64	71.33
Cotton Picker-1st-BB	5R38"250hp	284,601	200	8	12.86	0.207	4.58	7.30	9.21	21.10	35.27	56.38
Cotton Picker-1st-BB	6R30"325hp	465,000	200	8	18.27	0.218	4.83	10.92	15.85	31.61	60.70	92.31
Cotton Picker-1st-BB	6R38"330hp	478,000	200	8	18.27	0.172	3.81	8.62	12.86	25.31	49.26	74.57
Cotton Picker-1st-Tr	2R38"157hp	144,912	200	8	8.08	0.519	11.51	11.50	11.76	34.78	45.04	79.82
Cotton Picker-1st-Tr	4R2X1255hp	322,137	200	8	18.01	0.172	3.81	8.50	8.67	20.99	33.20	54.19
Cotton Picker-1st-Tr	4R30"325hp	261,825	200	8	12.86	0.327	7.25	11.54	13.39	32.18	51.26	83.45
Cotton Picker-1st-Tr	4R30"325hp	311,088	200	8	16.72	0.327	7.25	15.00	15.91	38.17	60.91	99.08
Cotton Picker-1st-Tr	4R38"255hp	262,818	200	8	13.12	0.257	5.70	9.27	10.58	25.56	40.52	66.08
Cotton Picker-1st-Tr	4R38"325hp	325,618	200	8	18.01	0.257	5.70	12.72	13.11	31.54	50.20	81.75
Cotton Picker-1st-Tr	5R30"325hp	285,303	200	8	13.12	0.261	5.80	9.41	11.67	26.89	44.69	71.58
Cotton Picker-1st-Tr	5R38"250hp	290,471	200	8	12.86	0.207	4.58	7.30	9.40	21.29	35.99	57.29
Cotton Picker-1st-Tr	6R30"325hp	429,000	200	8	16.72	0.218	4.83	10.00	14.62	29.46	56.00	85.47
Cotton Picker-1st-Tr	6R38"330hp	429,000	200	8	18.01	0.172	3.81	8.50	11.55	23.86	44.21	68.08
Cotton Picker-2nd-BB	2R38"157hp	144,912	200	8	8.08	0.440	9.74	9.74	9.96	29.46	38.15	67.61
Cotton Picker-2nd-BB	4R2x1260hp	322,187	200	8	18.01	0.145	3.23	7.20	7.34	17.78	28.12	45.91
Cotton Picker-2nd-BB	4R30"250hp	261,825	200	8	12.86	0.277	6.14	9.77	11.34	27.26	43.42	70.69
Cotton Picker-2nd-BB	4R30"325hp	311,088	200	8	16.72	0.277	6.14	12.71	13.47	32.33	51.59	83.93
Cotton Picker-2nd-BB	4R38"255hp	262,818	200	8	13.12	0.218	4.83	7.85	8.96	21.65	34.32	55.98
Cotton Picker-2nd-BB	4R38"325hp	325,618	200	8	18.01	0.218	4.83	10.77	11.10	26.72	42.52	69.24
Cotton Picker-2nd-BB	5R30"255hp	285,303	200	8	13.12	0.221	4.91	7.97	9.88	22.78	37.85	60.64
Cotton Picker-2nd-BB	5R38"250hp	284,601	200	8	12.86	0.175	3.88	6.18	7.80	17.88	29.87	47.75
Cotton Picker-2nd-BB	6R30"325hp	405,906	200	8	18.01	0.184	4.09	9.12	11.72	24.94	44.88	69.82
Cotton Picker-2nd-BB	6R38"330hp	404,462	200	8	18.01	0.145	3.23	7.20	9.22	19.65	35.30	54.96
Cotton Picker-2nd-Tr	2R38"157hp	144,912	200	8	8.08	0.440	9.74	9.74	9.96	29.46	38.15	67.61
Cotton Picker-2nd-Tr	4R2X1260hp	322,137	200	8	18.01	0.145	3.23	7.20	7.34	17.78	28.12	45.90
Cotton Picker-2nd-Tr	4R30"250hp	261,825	200	8	12.86	0.277	6.14	9.77	11.34	27.26	43.42	70.69
Cotton Picker-2nd-Tr	4R30"325hp	311,088	200	8	16.72	0.277	6.14	12.71	13.47	32.33	51.59	83.93
Cotton Picker-2nd-Tr	4R38"255hp	262,818	200	8	13.12	0.218	4.83	7.85	8.96	21.65	34.32	55.98
Cotton Picker-2nd-Tr	4R38"325hp	325,618	200	8	18.01	0.218	4.83	10.77	11.10	26.72	42.52	69.24
Cotton Picker-2nd-Tr	5R30"255hp	285,303	200	8	13.12	0.221	4.91	7.97	9.88	22.78	37.85	60.64
Cotton Picker-2nd-Tr	5R38"250hp	290,471	200	8	12.86	0.175	3.88	6.18	7.96	18.04	30.49	48.53
Cotton Picker-2nd-Tr	6R30"325hp	381,665	200	8	16.72	0.184	4.09	8.47	11.02	23.59	42.20	65.79
Cotton Picker-2nd-Tr	6R38"330hp	404,462	200	8	18.01	0.145	3.23	7.20	9.22	19.65	35.30	54.96
LA Pickup Truck	1/2 ton	25,000	800	5	2.50	1.000	9.60	8.50	2.81	20.91	6.54	27.45
Levee Sprayer	27'	30,768	350	8	2.57	0.038	0.66	0.27	0.06	0.99	0.40	1.40
Sprayer(300-450Gal)	60'	103,000	350	8	5.66	0.017	0.30	0.27	0.09	0.67	0.62	1.29
Sprayer(300-450Gal)	80'	103,000	350	8	5.66	0.013	0.22	0.20	0.07	0.50	0.46	0.97
Sprayer(600-750Gal)	60'	174,000	350	8	10.29	0.017	0.30	0.49	0.16	0.96	1.04	2.01
Sprayer(600-825Gal)	80'	254,000	350	8	10.29	0.013	0.22	0.37	0.17	0.78	1.14	1.92
Sprayer(600-825Gal)	90'	240,000	350	8	10.29	0.011	0.20	0.33	0.15	0.68	0.96	1.65
Sprayer(1000-1400Gal)	90'	290,000	350	8	14.15	0.014	0.24	0.54	0.21	1.01	1.39	2.40
Sprayer(1200PlusGal)	120'	318,000	350	8	15.44	0.008	0.15	0.37	0.15	0.67	0.95	1.63

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Louisiana 2015.

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-----							
Blade-Box	6'	2WD 130	1,090	200	20	0.020	0.19	0.36	0.01	0.06	0.62	0.00	0.34	0.98
Blade-Box	10'	2WD 50	5,060	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Box	14'	2WD 50	7,550	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blade-Scraper	6'	2WD 50	1,150	200	20	1.176	11.29	8.29	0.64	0.69	20.92	0.48	4.03	25.45
Blade-Scraper	10'	2WD 50	3,310	200	20	1.176	11.29	8.29	1.84	0.69	22.13	1.40	4.03	27.57
Blade-Scraper	14'	2WD 50	6,730	200	20	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chisel Plow(Folding)	16'	2WD 130	22,500	150	12	0.115	1.10	2.11	0.93	0.34	4.51	1.56	2.02	8.09
Chisel Plow(Folding)	24'	MFWD 190	37,200	150	12	0.076	0.73	2.04	1.02	0.38	4.19	1.71	2.33	8.23
Chisel Plow(Folding)	32'	MFWD 225	48,000	150	12	0.057	0.55	1.83	1.00	0.40	3.79	1.66	2.48	7.95
Chisel Plow(Folding)	42'	MFWD 225	55,200	150	12	0.044	0.42	1.39	0.87	0.31	3.00	1.46	1.89	6.36
Chisel Plow(Rigid)	15'	2WD 130	11,900	150	12	0.123	1.18	2.25	0.52	0.37	4.34	0.88	2.15	7.38
Chisel Plow(Rigid)	24'	MFWD 190	13,100	150	12	0.077	0.73	2.06	0.36	0.38	3.55	0.60	2.34	6.50
Chisel-Harrow	21 shank	2WD 190	12,500	150	12	0.088	0.84	2.35	0.39	0.39	3.99	0.66	2.39	7.05
Chisel-Harrow	27 shank	MFWD 225	14,100	150	12	0.068	0.65	2.17	0.34	0.48	3.66	0.58	2.94	7.19
Colter-Chisel-Harrow	21 shank	2WD 190	19,200	150	12	0.088	0.84	2.35	0.61	0.39	4.20	1.01	2.39	7.62
Colter-Chisel-Harrow	27 shank	MFWD 225	24,000	150	12	0.068	0.65	2.17	0.59	0.48	3.90	0.98	2.94	7.84
Corn Grain Cart 8R30	500 bu	MFWD 190	24,700	200	12	0.031	0.30	0.85	0.21	0.15	1.53	0.35	0.97	2.86
Corn Grain Cart 8R40	700bu	MFWD 190	34,200	200	12	0.025	0.24	0.66	0.23	0.12	1.26	0.38	0.76	2.41
Cult & Post	4R-38	2WD 105	17,800	150	10	0.173	2.49	2.56	0.82	0.29	6.17	2.09	1.70	9.98
Cult & Post	6R-30	MFWD 150	21,900	150	10	0.146	4.22	3.10	0.85	0.65	8.83	2.18	3.80	14.83
Cult & Post	6R-38	MFWD 150	21,700	150	10	0.115	1.66	2.44	0.67	0.51	5.30	1.70	3.00	10.01
Cult & Post	8R-30	MFWD 190	25,600	150	10	0.110	1.58	2.94	0.75	0.55	5.83	1.91	3.35	11.09
Cult & Post	8R-38	MFWD 190	17,800	150	10	0.086	1.25	2.33	0.41	0.43	4.42	1.05	2.65	8.13
Cult & Post	8R-38 2x1	MFWD 190	37,100	150	10	0.057	0.83	1.55	0.57	0.28	3.24	1.46	1.76	6.47
Cult & Post	10R-30	MFWD 225	34,600	150	10	0.088	1.26	2.79	0.81	0.62	5.49	2.06	3.78	11.35
Cult & Post	10R-38	MFWD 225	0	150	10	0.065	0.93	2.06	0.00	0.45	3.46	0.00	2.80	6.26
Cult & Post	12R-30	MFWD 225	42,200	150	10	0.073	1.05	2.32	0.82	0.51	4.72	2.10	3.15	9.98
Cult & Post	12R-38	MFWD 225	44,700	150	10	0.057	0.83	1.83	0.69	0.40	3.76	1.75	2.49	8.02
Cultipacker	12'	2WD 130	4,846	300	12	0.124	1.19	2.28	0.14	0.37	3.99	0.18	2.17	6.35
Cultipacker	20'	MFWD 150	15,200	300	12	0.074	0.71	1.57	0.26	0.33	2.89	0.35	1.93	5.19
Cultivate	4R-38	2WD 105	11,900	150	10	0.162	1.55	2.40	0.51	0.27	4.75	1.31	1.60	7.67
Cultivate	6R-30	MFWD 150	15,900	150	10	0.137	1.32	2.90	0.58	0.61	5.42	1.48	3.57	10.48
Cultivate	6R-38	MFWD 150	15,700	150	10	0.108	1.04	2.29	0.45	0.48	4.27	1.15	2.81	8.25
Cultivate	8R-30	MFWD 190	20,600	150	10	0.103	0.99	2.76	0.56	0.51	4.83	1.44	3.14	9.42
Cultivate	8R-38	MFWD 190	21,800	150	10	0.081	0.78	2.18	0.47	0.40	3.84	1.20	2.48	7.54
Cultivate	8R-38 2x1	MFWD 190	29,700	150	10	0.054	0.52	1.45	0.42	0.27	2.67	1.09	1.65	5.42
Cultivate	10R-30	MFWD 225	28,200	150	10	0.082	0.79	2.61	0.62	0.58	4.61	1.58	3.55	9.74
Cultivate	10R-38	MFWD 225	0	150	10	0.065	0.62	2.06	0.00	0.45	3.14	0.00	2.80	5.94
Cultivate	12R-30	MFWD 225	36,300	150	10	0.068	0.66	2.18	0.66	0.48	3.99	1.69	2.95	8.64
Cultivate	12R-38	MFWD 225	37,400	150	10	0.054	0.52	1.72	0.54	0.38	3.16	1.37	2.33	6.88
Disk & Incorporate	14'	2WD 130	27,800	200	10	0.149	2.15	2.74	1.24	0.45	6.59	2.12	2.61	11.33
Disk & Incorporate	24'	MFWD 190	41,400	200	10	0.087	1.25	2.33	1.08	0.43	5.11	1.84	2.66	9.62
Disk & Incorporate	32'	4WD 225	56,800	200	10	0.068	0.99	2.18	1.17	0.31	4.65	1.99	1.92	8.57
Disk & Incorporate	42'	MFWD 225	30,542	200	10	0.049	0.70	1.55	0.44	0.34	3.06	0.76	2.11	5.94
Disk Bed (Hipper)	4R-38	MFWD 150	7,820	160	10	0.147	1.41	3.12	0.28	0.65	5.48	0.73	3.83	10.05
Disk Bed (Hipper)	6R-30	MFWD 170	12,800	160	10	0.125	1.20	2.99	0.40	0.65	5.24	1.01	3.97	10.24
Disk Bed (Hipper)	6R-38	MFWD 170	13,500	160	10	0.098	0.94	2.36	0.33	0.51	4.16	0.84	3.13	8.14
Disk Bed (Hipper)	8R-30	MFWD 190	17,400	160	10	0.093	0.90	2.51	0.40	0.46	4.28	1.03	2.85	8.18
Disk Bed (Hipper)	8R-38 2x1	MFWD 190	31,900	160	10	0.049	0.47	1.32	0.39	0.24	2.43	1.00	1.50	4.94
Disk Bed (Hipper)	10R-30	MFWD 225	19,900	160	10	0.075	0.72	2.37	0.37	0.52	4.00	0.95	3.22	8.18
Disk Bed (Hipper)	10R-38	MFWD 225	23,000	160	10	0.059	0.56	1.87	0.34	0.41	3.20	0.86	2.54	6.61
Disk Bed (Hipper)	12R-30	MFWD 225	28,100	160	10	0.062	0.60	1.98	0.43	0.44	3.46	1.11	2.69	7.27
Disk Bed (Hipper)	12R-38	MFWD 225	31,900	160	10	0.049	0.47	1.56	0.39	0.34	2.78	1.00	2.12	5.90
Disk Bed (Hipper)Fld	8R-38	MFWD 190	21,300	160	10	0.074	0.71	1.98	0.39	0.37	3.46	1.00	2.25	6.72
Disk Bed (Hipper)Rdg	8R-38	MFWD 190	19,800	160	10	0.074	0.71	1.98	0.36	0.37	3.43	0.93	2.25	6.62
Disk Bed w/roller	8R-30	2WD 190	22,100	160	10	0.093	0.90	2.51	0.51	0.41	4.34	1.32	2.55	8.22
Disk Bed w/roller	12R-30	MFWD 225	47,200	160	10	0.062	0.60	1.98	0.73	0.44	3.76	1.87	2.69	8.33
Disk Harrow	14'	2WD 130	21,800	180	10	0.140	1.34	2.57	0.84	0.42	5.19	1.73	2.45	9.37
Disk Harrow	24'	MFWD 190	42,600	180	10	0.081	0.78	2.19	0.96	0.40	4.35	1.97	2.49	8.82
Disk Harrow	28'	MFWD 225	45,200	180	10	0.070	0.67	2.22	0.88	0.49	4.27	1.79	3.02	9.09
Disk Harrow	32'	MFWD 225	50,800	180	10	0.061	0.58	1.95	0.86	0.43	3.84	1.76	2.64	8.25
Disk Harrow	42'	MFWD 225	99,500	180	10	0.046	0.44	1.48	1.29	0.33	3.55	2.63	2.01	8.20
Ditcher		2WD 130	4,910	200	10	0.020	0.19	0.36	0.03	0.06	0.65	0.05	0.34	1.05
Ditcher (1m/160a)		2WD 130	4,910	200	10	0.009	0.09	0.17	0.01	0.02	0.30	0.02	0.16	0.49
Fert Appl (Liquid)	4R-38	MFWD 150	13,500	150	8	0.154	2.22	3.27	1.39	0.69	7.58	1.51	4.01	13.11
Fert Appl (Liquid)	6R-30	MFWD 170	16,300	150	8	0.130	1.88	3.13	1.42	0.68	7.13	1.55	4.16	12.84
Fert Appl (Liquid)	6R-38	MFWD 170	14,500	150	8	0.103	1.48	2.47	0.99	0.53	5.50	1.08	3.28	9.88
Fert Appl (Liquid)	8R-30	MFWD 190	15,200	150	8	0.098	1.41	2.63	0.99	0.49	5.53	1.08	2.99	9.60
Fert Appl (Liquid)	8R-38	MFWD 190	17,300	150	8	0.077	1.11	2.08	0.89	0.38	4.48	0.97	2.36	7.82
Fert Appl (Liquid)	8R-38 2x1	MFWD 190	16,900	150	8	0.051	0.74	1.38	0.58	0.25	2.97	0.63	1.57	5.18
Fert Appl (Liquid)	10R-30	MFWD 225	18,600	150	8	0.078	1.13	2.49	0.97	0.55	5.15	1.06	3.38	9.59
Fert Appl (Liquid)	10R-38	MFWD 225	20,300	150	8	0.061	0.89	1.96	0.83	0.43	4.13	0.91	2.66	7.71
Fert Appl (Liquid)	12R-30	MFWD 225	19,400	150	8	0.078	1.13	2.49	1.01	0.55	5.19	1.10	3.38	9.68
Fert Appl (Liquid)	12R-38	MFWD 225	17,400	150	8	0.051	0.74	1.64	0.59	0.36	3.34	0.65	2.22	6.22
Field Cult & Inc	12'	2WD 150	13,605	100	10	0.132	1.90	2.79	0.44	0.52	5.67	1.83	3.04	10.55
Field Cult & Inc	24'	MFWD 170	24,679	100	10	0.066	0.95	1.58	0.40	0.34	3.28	1.66	2.10	7.05

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Louisiana 2015.

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-----														
Field Cultivate	12'	2WD 150	16,600	100	10	0.124	1.19	2.63	0.51	0.49	4.83	2.10	2.86	9.81
Field Cultivate	24'	MFWD 170	26,000	100	10	0.062	0.59	1.49	0.40	0.32	2.81	1.64	1.97	6.44
Field Cultivate	32'	MFWD 190	39,500	100	10	0.046	0.44	1.25	0.46	0.23	2.39	1.87	1.42	5.69
Field Cultivate	42'	MFWD 225	51,500	100	10	0.035	0.34	1.12	0.45	0.25	2.17	1.86	1.53	5.57
Field Cultivate	50'	MFWD 225	61,300	100	10	0.029	0.28	0.94	0.45	0.21	1.90	1.86	1.28	5.05
Gate Installer		2WD 130	2,960	10	10	0.020	0.38	0.36	0.17	0.06	0.98	0.57	0.34	1.91
Grain Drill	12'	2WD 130	22,700	150	8	0.157	3.01	2.88	1.33	0.47	7.70	2.46	2.74	12.92
Grain Drill	15'	MFWD 150	30,500	150	8	0.125	2.41	2.65	1.43	0.56	7.07	2.64	3.26	12.98
Grain Drill	20'	MFWD 170	37,600	150	8	0.094	1.81	2.26	1.32	0.49	5.89	2.44	2.99	11.34
Grain Drill	24'	MFWD 190	56,700	150	8	0.078	1.50	2.10	1.67	0.39	5.67	3.07	2.39	11.15
Grain Drill	30'	MFWD 225	61,300	150	8	0.062	1.20	1.99	1.44	0.44	5.09	2.66	2.70	10.45
Grain Drill & Pre	12'	2WD 130	28,700	150	8	0.169	3.24	3.10	1.82	0.50	8.68	3.35	2.95	14.99
Grain Drill & Pre	15'	MFWD 150	36,500	150	8	0.135	2.59	2.86	1.85	0.60	7.92	3.41	3.51	14.85
Grain Drill & Pre	20'	MFWD 170	43,500	150	8	0.101	1.94	2.43	1.65	0.52	6.57	3.05	3.23	12.85
Grain Drill & Pre	24'	MFWD 190	59,500	150	8	0.084	1.62	2.26	1.88	0.42	6.20	3.47	2.57	12.26
Grain Drill & Pre	30'	MFWD 225	68,700	150	8	0.067	1.29	2.14	1.74	0.47	5.66	3.21	2.91	11.79
Harrow	13'	2WD 130	4,360	200	10	0.119	1.14	2.19	0.18	0.35	3.87	0.26	2.08	6.23
Harrow	21'	2WD 150	5,400	200	10	0.073	0.70	1.56	0.13	0.29	2.70	0.20	1.70	4.61
Harrow	40'	MFWD 190	16,700	200	10	0.038	0.37	1.04	0.22	0.19	1.83	0.33	1.18	3.34
Harrow	47'	MFWD 190	21,000	200	10	0.033	0.31	0.88	0.24	0.16	1.61	0.35	1.00	2.97
Header - Corn	4R-38	240hp	25,147	300	8	0.201	2.52	6.80	1.26	3.38	13.97	1.83	12.95	28.77
Header - Corn	6R30"	240hp	43,500	300	8	0.170	2.13	5.76	1.85	2.86	12.61	2.69	10.96	26.27
Header - Corn	6R38"	240hp	44,700	300	8	0.134	1.68	4.54	1.50	2.26	10.00	2.18	8.65	20.84
Header - Corn	8R-30	240hp	56,200	300	8	0.127	1.60	4.32	1.79	2.14	9.86	2.60	8.22	20.70
Header - Corn	8R-38	275hp	57,600	300	8	0.100	1.26	3.91	1.45	3.06	9.69	2.11	11.71	23.52
Header - Corn	12R-20	275hp	76,400	300	8	0.127	1.60	4.95	2.43	3.87	12.86	3.54	14.81	31.22
Header - Corn	12R-30	275hp	87,700	300	8	0.085	1.06	3.30	1.86	2.58	8.81	2.71	9.87	21.40
Header - Rice (CL)	22' Rigid	240hp	21,887	300	8	0.288	3.62	9.76	1.57	4.85	19.81	2.29	18.58	40.68
Header - Rice (CL)	25' Rigid	240hp	51,600	300	8	0.253	3.18	8.59	3.27	4.27	19.32	4.75	16.35	40.43
Header - Rice (CL)	30' Rigid	275hp	59,000	300	8	0.211	2.65	8.20	3.12	6.41	20.38	4.53	24.54	49.46
Header - Rice (SL)	22' Rigid	240hp	21,887	300	8	0.250	3.13	8.45	1.36	4.20	17.17	1.98	16.10	35.26
Header - Rice (SL)	25' Rigid	240hp	51,600	300	8	0.220	2.76	7.44	2.83	3.70	16.74	4.12	14.17	35.04
Header - Rice (SL)	30' Rigid	275hp	59,000	300	8	0.183	2.30	7.10	2.70	5.55	17.66	3.92	21.27	42.87
Header - Soybean	15' Flex	240hp	0	300	8	0.170	2.13	5.76	0.00	2.86	10.76	0.00	10.96	21.73
Header - Soybean	18' Flex	240hp	20,309	300	8	0.141	1.78	4.80	0.72	2.38	9.69	1.04	9.14	19.87
Header - Soybean	22' Flex	240hp	28,900	300	8	0.116	1.45	3.92	0.83	1.95	8.17	1.21	7.47	16.87
Header - Soybean	25' Flex	275hp	32,700	300	8	0.102	1.28	3.96	0.83	3.09	9.17	1.21	11.85	22.24
Header - Soybean	30' Flex	275hp	31,200	300	8	0.085	1.06	3.30	0.66	2.58	7.61	0.96	9.87	18.45
Header Wheat/Sorghum	18' Rigid	240hp	19,069	300	8	0.141	1.78	4.80	0.67	2.38	9.64	0.98	9.14	19.77
Header Wheat/Sorghum	22' Rigid	240hp	19,500	300	8	0.116	1.45	3.92	0.56	1.95	7.90	0.82	7.47	16.20
Header Wheat/Sorghum	25' Rigid	240hp	27,300	300	8	0.102	1.28	3.45	0.69	1.71	7.15	1.01	6.58	14.75
Header Wheat/Sorghum	30' Rigid	275hp	30,300	300	8	0.085	1.06	3.30	0.64	2.58	7.59	0.93	9.87	18.41
Heavy Disk	14'	MFWD 150	21,900	180	10	0.145	1.40	3.08	0.88	0.65	6.02	1.81	3.79	11.62
Heavy Disk	21'	MFWD 170	34,500	180	10	0.097	0.93	2.33	0.93	0.50	4.70	1.90	3.09	9.70
Heavy Disk	27'	MFWD 190	41,400	180	10	0.075	0.72	2.02	0.87	0.37	4.00	1.77	2.30	8.08
LA Boom Sprayer	30 ft	MFWD 150	3,000	150	10	0.059	0.57	1.26	0.13	0.26	2.24	0.14	1.55	3.94
Land Plane	40'x10'	MFWD 190	6,020	200	10	0.242	2.32	6.50	0.29	1.21	10.33	0.74	7.39	18.47
Land Plane	50'x16'	MFWD 190	12,300	200	10	0.151	1.45	4.06	0.37	0.75	6.65	0.95	4.62	12.22
LARice Backhoe-Rrmnt	2 ft	MFWD 150	6,000	100	10	0.500	4.80	10.57	2.64	2.23	20.25	3.54	12.98	36.78
LARice Land Level	13 ft	MFWD 150	7,500	200	15	0.190	1.82	4.02	0.15	0.84	6.85	0.62	4.93	12.42
LARice Levee Plow	8 ft	4WD 300	4,600	150	10	0.050	0.48	2.11	0.07	0.43	3.10	0.18	2.63	5.92
LARice Water Level	24 ft	4WD 300	3,500	100	15	0.149	1.43	6.34	0.23	1.29	9.31	0.46	7.91	17.68
Levee Splitter (1/80	2 blade	2WD 150	3,280	50	10	0.004	0.04	0.08	0.00	0.01	0.14	0.02	0.09	0.27
Lo-Till & Bed	4R-38	MFWD 190	5,100	150	12	0.145	1.39	3.90	0.26	0.72	6.29	0.46	4.43	11.19
Middle Buster	6R-38	MFWD 150	12,800	160	8	0.120	1.15	2.54	0.36	0.53	4.59	1.09	3.12	8.81
Middle Buster	8R-30	MFWD 190	20,800	160	8	0.114	1.09	3.05	0.55	0.57	5.28	1.69	3.48	10.46
Middle Buster	8R-38	MFWD 190	18,100	160	8	0.090	0.86	2.41	0.38	0.45	4.11	1.16	2.75	8.03
Middle Buster	8R-40 2x1	MFWD 190	29,200	160	8	0.060	0.57	1.61	0.41	0.30	2.89	1.25	1.83	5.98
Middle Buster	10R-30	MFWD 225	29,300	160	8	0.091	0.87	2.89	0.62	0.64	5.04	1.91	3.93	10.89
Middle Buster	10R-38	MFWD 225	32,100	160	8	0.072	0.69	2.28	0.54	0.50	4.02	1.65	3.10	8.78
Middle Buster	12R-38	MFWD 225	29,200	160	8	0.060	0.57	1.90	0.41	0.42	3.31	1.25	2.58	7.16
Mulcher Plow	30'	MFWD 225	0	100	10	0.068	0.65	2.16	0.00	0.48	3.29	0.00	2.93	6.22
NT Grain Drill	12'	2WD 130	42,000	150	8	0.163	3.14	3.00	2.57	0.49	9.21	4.74	2.86	16.82
NT Grain Drill	15'	MFWD 150	48,800	150	8	0.130	2.51	2.77	2.39	0.58	8.26	4.41	3.40	16.08
NT Grain Drill	20'	MFWD 170	64,400	150	8	0.098	1.88	2.35	2.37	0.51	7.12	4.36	3.12	14.61
NT Grain Drill	24'	MFWD 190	79,200	150	8	0.081	1.57	2.19	2.43	0.40	6.60	4.47	2.49	13.57
NT Grain Drill	30'	MFWD 225	90,600	150	8	0.065	1.25	2.07	2.22	0.46	6.02	4.09	2.81	12.93
NT Grain Drill & Pre	12'	2WD 130	39,500	150	8	0.176	3.38	3.23	2.61	0.53	9.75	4.81	3.08	17.65
NT Grain Drill & Pre	15'	MFWD 150	54,800	150	8	0.141	2.70	2.98	2.89	0.63	9.21	5.33	3.66	18.22
NT Grain Drill & Pre	20'	MFWD 170	70,400	150	8	0.105	2.03	2.53	2.79	0.55	7.91	5.14	3.36	16.42
NT Grain Drill & Pre	24'	MFWD 190	85,200	150	8	0.088	1.69	2.36	2.81	0.44	7.31	5.18	2.68	15.18
NT Grain Drill & Pre	30'	MFWD 225	98,000	150	8	0.070	1.35	2.23	2.59	0.49	6.68	4.77	3.03	14.49
NT Plant&Pre-Folding	8R-38	MFWD 170	48,000	150	8	0.083	1.60	2.00	1.50	0.43	5.55	2.77	2.65	10.98

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, (Continued) and direct and fixed cost per acre, Louisiana 2015.

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-----														
NT Grain Drill & Pre	15'	MFWD 150	54,800	150	8	0.141	2.70	2.98	2.89	0.63	9.21	5.33	3.66	18.22
NT Grain Drill & Pre	20'	MFWD 170	70,400	150	8	0.105	2.03	2.53	2.79	0.55	7.91	5.14	3.36	16.42
NT Grain Drill & Pre	24'	MFWD 190	85,200	150	8	0.088	1.69	2.36	2.81	0.44	7.31	5.18	2.68	15.18
NT Grain Drill & Pre	30'	MFWD 225	98,000	150	8	0.070	1.35	2.23	2.59	0.49	6.68	4.77	3.03	14.49
NT Plant&Pre-Folding	8R-38	MFWD 170	48,000	150	8	0.083	1.60	2.00	1.50	0.43	5.55	2.77	2.65	10.98
NT Plant&Pre-Folding	8R-38 2x1	MFWD 170	80,800	150	8	0.055	1.06	1.33	1.68	0.29	4.38	3.10	1.77	9.25
NT Plant&Pre-Folding	10R-30	MFWD 190	57,555	150	8	0.084	1.62	2.26	1.82	0.42	6.14	3.36	2.57	12.08
NT Plant&Pre-Folding	10R-38	MFWD 190	52,893	150	8	0.066	1.28	1.78	1.32	0.33	4.72	2.43	2.03	9.19
NT Plant&Pre-Folding	12R-20	MFWD 190	70,200	150	8	0.105	2.03	2.83	2.78	0.52	8.17	5.12	3.22	16.53
NT Plant&Pre-Folding	12R-30	MFWD 190	72,000	150	8	0.070	1.35	1.88	1.90	0.35	5.49	3.50	2.14	11.15
NT Plant&Pre-Folding	12R-38	MFWD 190	80,800	150	8	0.055	1.06	1.49	1.68	0.27	4.52	3.10	1.69	9.32
NT Plant&Pre-Folding	16R-30	MFWD 190	101,000	150	8	0.052	1.01	1.41	2.00	0.26	4.69	3.69	1.61	10.00
NT Plant&Pre-Folding	23R-15	MFWD 190	129,000	150	8	0.073	1.41	1.96	3.55	0.36	7.29	6.54	2.23	16.08
NT Plant&Pre-Folding	24R-20	MFWD 190	143,000	150	8	0.052	1.01	1.41	2.83	0.26	5.53	5.22	1.61	12.36
NT Plant&Pre-Folding	24R-30	MFWD 190	188,000	150	8	0.035	0.67	0.94	2.48	0.17	4.28	4.57	1.07	9.93
NT Plant&Pre-Rigid	4R-30	2WD 130	26,600	150	8	0.211	4.06	3.87	2.11	0.63	10.68	3.88	3.69	18.27
NT Plant&Pre-Rigid	4R-38	2WD 130	28,800	150	8	0.166	3.19	3.05	1.79	0.50	8.55	3.31	2.91	14.77
NT Plant&Pre-Rigid	6R-30	MFWD 150	36,900	150	8	0.141	2.70	2.98	1.95	0.63	8.27	3.59	3.66	15.53
NT Plant&Pre-Rigid	6R-38	MFWD 150	33,100	150	8	0.111	2.13	2.35	1.38	0.49	6.37	2.54	2.89	11.81
NT Plant&Pre-Rigid	8R-22	MFWD 170	26,219	150	8	0.143	2.76	3.45	1.41	0.75	8.37	2.60	4.57	15.56
NT Plant&Pre-Rigid	8R-30	MFWD 170	42,200	150	8	0.105	2.03	2.53	1.67	0.55	6.79	3.08	3.36	13.24
NT Plant&Pre-Rigid	8R-38	MFWD 170	39,300	150	8	0.077	1.48	1.85	1.13	0.40	4.87	2.09	2.45	9.42
NT Plant&Pre-Rigid	10R-30	MFWD 190	46,300	150	8	0.084	1.62	2.26	1.46	0.42	5.78	2.70	2.57	11.06
NT Plant&Pre-Rigid	12R-20	MFWD 190	52,100	150	8	0.105	2.03	2.83	2.06	0.52	7.46	3.80	3.22	14.49
NT Plant&Pre-Rigid	12R-30	MFWD 190	64,700	150	8	0.070	1.35	1.88	1.71	0.35	5.30	3.15	2.14	10.60
Paratill & Bed	4R-30	MFWD 225	16,500	150	12	0.204	1.96	6.48	1.21	1.44	11.10	2.02	8.79	21.93
Paratill & Bed	4R-38	MFWD 225	15,200	150	12	0.160	1.54	5.10	0.88	1.13	8.66	1.47	6.92	17.06
Paratill & Bed	6R-30	MFWD 225	22,600	150	12	0.136	1.30	4.32	1.11	0.96	7.70	1.85	5.86	15.42
Paratill & Bed	6R-38	MFWD 225	20,300	150	12	0.107	1.03	3.41	0.78	0.75	5.99	1.31	4.62	11.93
Paratill & Bed	8R-30	MFWD 225	28,100	150	12	0.102	0.98	3.24	1.03	0.72	5.98	1.72	4.39	12.10
Paratill & Bed	8R382X1	MFWD 225	69,100	150	12	0.053	0.51	1.70	1.34	0.37	3.94	2.23	2.31	8.49
Paratill & Bed Fold.	8R-38	MFWD 225	54,400	150	12	0.080	0.77	2.56	1.58	0.57	5.49	2.64	3.47	11.61
Paratill & Bed Fold.	12R-38	MFWD 225	69,100	150	12	0.053	0.51	1.70	1.34	0.37	3.94	2.23	2.31	8.49
Paratill & Bed Rigid	8R-38	MFWD 225	24,500	150	12	0.080	0.77	2.56	0.71	0.57	4.62	1.19	3.47	9.29
Pipe Drag	30'	2WD 150	500	100	12	0.051	0.49	1.09	0.00	0.20	1.80	0.02	1.19	3.02
Pipe Spool 160ac	1/4m roll	2WD 130	3,380	15	12	0.003	0.09	0.05	0.00	0.00	0.16	0.06	0.05	0.28
Pipe Trailer 1m/160a	30'	2WD 130	1,330	100	15	0.003	0.18	0.06	0.00	0.01	0.26	0.00	0.06	0.33
Plant & Pre Folding	8R-38	MFWD 170	45,900	150	8	0.080	1.54	1.92	1.38	0.41	5.26	2.54	2.55	10.36
Plant & Pre Folding	8R38 2x1	MFWD 170	77,600	150	8	0.053	1.02	1.28	1.55	0.27	4.14	2.86	1.70	8.70
Plant & Pre Folding	10R-30	MFWD 190	52,920	150	8	0.081	1.55	2.17	1.61	0.40	5.75	2.96	2.47	11.20
Plant & Pre Folding	10R-38	MFWD 190	48,258	150	8	0.064	1.22	1.71	1.15	0.32	4.42	2.13	1.95	8.51
Plant & Pre Folding	12R-20	MFWD 190	66,900	150	8	0.101	1.94	2.72	2.54	0.50	7.72	4.69	3.09	15.51
Plant & Pre Folding	12R-30	MFWD 190	68,700	150	8	0.067	1.29	1.81	1.74	0.33	5.19	3.21	2.06	10.47
Plant & Pre Folding	12R-38	MFWD 190	77,600	150	8	0.053	1.02	1.43	1.55	0.26	4.28	2.86	1.62	8.77
Plant & Pre Folding	16R-30	MFWD 190	96,200	150	8	0.050	0.97	1.36	1.83	0.25	4.42	3.37	1.54	9.34
Plant & Pre Folding	23R-15	MFWD 190	123,000	150	8	0.070	1.35	1.88	3.25	0.35	6.84	5.99	2.14	14.98
Plant & Pre Folding	24R-20	MFWD 190	137,000	150	8	0.050	0.97	1.36	2.60	0.25	5.19	4.80	1.54	11.55
Plant & Pre Folding	24R-30	MFWD 190	182,000	150	8	0.033	0.64	0.90	2.30	0.16	4.03	4.25	1.03	9.32
Plant & Pre Rigid	4R-30	2WD 130	22,500	150	8	0.203	3.89	3.72	1.71	0.61	9.94	3.15	3.55	16.65
Plant & Pre Rigid	4R-38	2WD 130	27,700	150	8	0.159	3.07	2.93	1.66	0.48	8.14	3.06	2.79	14.00
Plant & Pre Rigid	6R-30	MFWD 150	33,100	150	8	0.135	2.59	2.86	1.68	0.60	7.74	3.09	3.51	14.36
Plant & Pre Rigid	6R-38	MFWD 150	31,400	150	8	0.106	2.05	2.26	1.25	0.47	6.04	2.31	2.77	11.14
Plant & Pre Rigid	8R-22	MFWD 170	23,550	150	8	0.138	2.65	3.31	1.22	0.72	7.90	2.24	4.39	14.54
Plant & Pre Rigid	8R-30	MFWD 170	40,100	150	8	0.101	1.94	2.43	1.52	0.52	6.44	2.81	3.23	12.48
Plant & Pre Rigid	8R-38	MFWD 170	37,600	150	8	0.080	1.54	1.92	1.13	0.41	5.01	2.08	2.55	9.65
Plant & Pre Rigid	10R-30	MFWD 190	43,600	150	8	0.081	1.55	2.17	1.32	0.40	5.47	2.44	2.47	10.39
Plant & Pre Rigid	12R-20	MFWD 190	48,900	150	8	0.101	1.94	2.72	1.86	0.50	7.04	3.43	3.09	13.56
Plant & Pre Rigid	12R-30	MFWD 190	61,400	150	8	0.067	1.29	1.81	1.55	0.33	5.01	2.87	2.06	9.94
Plant - Folding	8R-38	MFWD 170	39,900	150	8	0.074	1.43	1.78	1.11	0.38	4.72	2.05	2.37	9.14
Plant - Folding	8R-38 2x1	MFWD 170	70,200	150	8	0.049	0.95	1.18	1.30	0.25	3.70	2.40	1.57	7.69
Plant - Folding	10R-30	MFWD 190	47,426	150	8	0.075	1.44	2.02	1.34	0.37	5.18	2.47	2.29	9.95
Plant - Folding	10R-38	MFWD 190	43,011	150	8	0.059	1.14	1.59	0.95	0.29	3.99	1.76	1.81	7.57
Plant - Folding	12R-20	MFWD 190	61,000	150	8	0.094	1.81	2.52	2.15	0.47	6.96	3.97	2.87	13.81
Plant - Folding	12R-30	MFWD 190	61,400	150	8	0.062	1.20	1.68	1.44	0.31	4.65	2.66	1.91	9.23
Plant - Folding	12R-38	MFWD 190	70,200	150	8	0.049	0.95	1.32	1.30	0.24	3.83	2.40	1.51	7.75
Plant - Folding	16R-30	MFWD 190	88,900	150	8	0.047	0.90	1.26	1.57	0.23	3.97	2.89	1.43	8.30
Plant - Folding	23R-15	MFWD 190	116,000	150	8	0.065	1.25	1.75	2.84	0.32	6.18	5.24	1.99	13.43
Plant - Folding	24R-20	MFWD 190	129,000	150	8	0.047	0.90	1.26	2.28	0.23	4.68	4.20	1.43	10.32
Plant - Folding	24R-30	MFWD 190	172,000	150	8	0.031	0.60	0.84	2.02	0.15	3.62	3.73	0.95	8.32
Plant - Rigid	4R-30	2WD 130	19,600	150	8	0.188	3.62	3.45	1.38	0.56	9.03	2.55	3.29	14.88
Plant - Rigid	4R-38	2WD 130	21,500	150	8	0.148	2.85	2.72	1.19	0.44	7.21	2.20	2.59	12.01
Plant - Rigid	6R-30	MFWD 150	29,300	150	8	0.125	2.41	2.65	1.38	0.56	7.01	2.54	3.26	12.82
Plant - Rigid	6R-38	MFWD 150	25,500	150	8	0.099	1.90	2.09	0.94	0.44	5.39	1.74	2.57	9.72
Plant - Rigid	8R-22	MFWD 170	18,473	150	8	0.127	2.45	3.06	0.88	0.66	7.07	1.63	4.06	12.77
Plant - Rigid	8R-30	MFWD 170	34,100	150	8	0.094	1.81	2.26	1.20	0.49	5.76	2.22	2.99	10.98
Plant - Rigid	8R-38	MFWD 170	31,700	150	8	0.074	1.43	1.78	0.88	0.38	4.49	1.63	2.37	8.49
Plant - Rigid	10R-30	MFWD 190	37,600	150	8	0.075	1.44	2.02	1.06	0.37	4.91	1.95	2.29	9.16
Plant - Rigid	12R-20	MFWD 190	42,900	150	8	0.094	1.81	2.52	1.51	0.47	6.32	2.79	2.87	11.99
Plant - Rigid	12R-30	MFWD 190	54,100	150	8	0.062	1.20	1.68	1.27	0.31	4.48	2.34	1.91	8.74
Plant - Rigid	15R-15	2WD 150	51,400	150	8	0.094	1.81	1.99	1.81	0.37	5.99	3.34	2.17	11.51
Pull Levee (1m/80a)	4 blade	2WD 50	3,180	100	10	0.003	0.03	0.02	0.00	0.00	0.06	0.01	0.01	0.08

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, Louisiana 2015.

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-----							
Rice Grain Cart	500 Bu	MFWD 190	24,700	200	12	0.057	0.54	1.53	0.38	0.28	2.74	0.63	1.74	5.12
Rice Grain Cart	700 Bu	MFWD 190	34,200	200	12	0.063	0.60	1.70	0.58	0.31	3.21	0.97	1.93	6.12
Roller	32'	MFWD 170	17,500	100	12	0.046	0.44	1.11	0.13	0.24	1.94	0.73	1.48	4.16
Rotary Cutter	7'	MFWD 130	4,380	185	10	0.168	1.61	3.08	0.59	0.59	5.90	0.40	3.48	9.79
Rotary Cutter	12'	2WD 150	12,600	185	10	0.098	0.94	2.07	1.00	0.38	4.41	0.68	2.26	7.36
Rotary Cutter	15'	MFWD 150	19,000	185	10	0.078	0.75	1.66	1.21	0.35	3.97	0.82	2.04	6.84
Row Cond & Inc	13'	2WD 130	13,300	100	10	0.137	1.98	2.52	0.45	0.41	5.38	1.87	2.41	9.67
Row Cond & Inc	21'	2WD 170	19,700	100	10	0.085	1.22	2.04	0.42	0.41	4.11	1.71	2.53	8.36
Row Cond & Inc	26'	MFWD 190	18,700	100	10	0.063	0.91	1.69	0.29	0.31	3.22	1.20	1.93	6.36
Row Cond & Inc	38'	MFWD 225	27,100	100	10	0.047	0.67	1.49	0.31	0.33	2.83	1.30	2.03	6.16
Row Cond & Inc	42'	MFWD 225	20,400	100	10	0.040	0.57	1.27	0.20	0.28	2.34	0.83	1.73	4.90
Row Cond (Harrow)	13'	2WD 130	7,300	100	10	0.114	1.10	2.10	0.20	0.34	3.76	0.85	2.00	6.62
Row Cond (Harrow)	21'	2WD 170	12,000	100	10	0.071	0.68	1.70	0.21	0.34	2.94	0.87	2.11	5.93
Row Cond (Harrow)	27'	MFWD 190	12,400	100	10	0.057	0.55	1.53	0.17	0.28	2.55	0.72	1.75	5.03
Row Cond (Harrow)	38'	MFWD 225	22,200	100	10	0.039	0.37	1.24	0.21	0.27	2.12	0.88	1.69	4.70
Row Cond (Harrow)	42'	MFWD 225	15,582	100	10	0.035	0.34	1.12	0.13	0.25	1.85	0.56	1.53	3.95
Row Cond (Plant)	13'	2WD 130	7,120	100	10	0.157	1.50	2.88	0.27	0.47	5.14	1.14	2.74	9.03
Row Cond (Plant)	21'	2WD 170	11,700	100	10	0.097	0.93	2.33	0.28	0.47	4.02	1.16	2.89	8.07
Row Cond (Plant)	27'	MFWD 190	12,400	100	10	0.078	0.75	2.10	0.24	0.39	3.49	0.99	2.39	6.88
Row Cond (Plant)	38'	MFWD 225	16,587	100	10	0.053	0.51	1.70	0.22	0.37	2.82	0.90	2.31	6.04
Row Cond (Plant)	42'	MFWD 225	15,582	100	10	0.048	0.46	1.54	0.18	0.34	2.54	0.77	2.09	5.41
RT Cult (Early)	8R-30	2WD 170	20,774	200	12	0.103	0.99	2.47	1.02	0.50	4.99	1.00	3.06	9.05
RT Cult (Early)	12R-30	2WD 190	29,998	200	12	0.068	0.66	1.84	0.98	0.30	3.79	0.96	1.87	6.63
RT Cult (Late)	8R-30	2WD 170	20,774	200	12	0.128	1.23	3.09	1.28	0.62	6.23	1.25	3.83	11.32
RT Cult (Late)	12R-30	2WD 190	29,998	200	12	0.085	0.82	2.30	1.23	0.38	4.74	1.20	2.34	8.29
RT Cult + PD (Early)	8R-30	2WD 150	26,264	200	12	0.110	1.58	2.32	1.38	0.43	5.73	1.35	2.53	9.61
RT Cult + PD (Early)	12R-30	MFWD 225	35,493	200	12	0.073	1.05	2.32	1.24	0.51	5.14	1.21	3.15	9.52
RT Cult + PD (Late)	8R-30	2WD 170	26,264	200	12	0.137	1.97	3.29	1.73	0.67	7.67	1.68	4.08	13.45
RT Cult + PD (Late)	12R-30	2WD 190	35,493	200	12	0.091	1.31	2.45	1.55	0.40	5.74	1.52	2.49	9.76
Spin Spreader	5 ton	MFWD 190	10,800	100	8	0.042	0.80	1.12	0.25	0.21	2.40	0.49	1.28	4.18
Spin Spreader	5 ton	MFWD 190	10,800	100	8	0.042	0.80	1.12	0.25	0.21	2.40	0.49	1.28	4.18
Spray (Band)	27'	MFWD 170	5,940	200	8	0.062	0.90	1.50	0.17	0.32	2.90	0.20	1.99	5.10
Spray (Band)	40'	MFWD 170	7,350	200	8	0.042	0.60	1.01	0.14	0.22	1.99	0.16	1.34	3.50
Spray (Band)	50'	MFWD 170	6,730	200	8	0.033	0.48	0.81	0.10	0.17	1.58	0.12	1.07	2.78
Spray (Band)	53'	MFWD 170	7,650	200	8	0.031	0.45	0.76	0.11	0.16	1.50	0.13	1.01	2.65
Spray (Band)	60'	MFWD 170	10,000	200	8	0.028	0.40	0.67	0.13	0.14	1.36	0.15	0.89	2.41
Spray (Bcast/HB)	13' Rigid	MFWD 150	5,810	200	8	0.130	1.87	2.75	0.35	0.58	5.56	0.41	3.38	9.35
Spray (Bcast/HB)	20' Rigid	2WD 50	6,840	200	8	0.084	1.21	0.59	0.27	0.04	2.13	0.31	0.29	2.74
Spray (Bcast/HB)	27' Fold	MFWD 170	10,700	200	8	0.062	0.90	1.50	0.31	0.32	3.04	0.36	1.99	5.40
Spray (Bcast/HB)	27' Rigid	MFWD 170	7,890	200	8	0.062	0.90	1.50	0.23	0.32	2.96	0.26	1.99	5.22
Spray (Bcast/HB)	30' Fold	MFWD 170	15,300	200	8	0.056	0.81	1.35	0.40	0.29	2.86	0.47	1.79	5.12
Spray (Bcast/HB)	40' Fold	MFWD 170	17,400	200	8	0.042	0.60	1.01	0.34	0.22	2.18	0.40	1.34	3.93
Spray (Bcast/HB/HD)	27'	MFWD 170	22,400	200	8	0.062	0.90	1.50	0.65	0.32	3.39	0.76	1.99	6.14
Spray (Bcast/HB/HD)	40'	MFWD 170	32,200	200	8	0.042	0.60	1.01	0.63	0.22	2.48	0.74	1.34	4.57
Spray (Broadcast)	27'	MFWD 170	5,940	200	8	0.062	0.90	1.50	0.17	0.32	2.90	0.20	1.99	5.10
Spray (Broadcast)	40'	MFWD 170	7,350	200	8	0.042	0.60	1.01	0.14	0.22	1.99	0.16	1.34	3.50
Spray (Broadcast)	50'	MFWD 170	6,730	200	8	0.033	0.48	0.81	0.10	0.17	1.58	0.12	1.07	2.78
Spray (Broadcast)	53'	MFWD 170	7,650	200	8	0.031	0.45	0.76	0.11	0.16	1.50	0.13	1.01	2.65
Spray (Broadcast)	60'	MFWD 170	10,000	200	8	0.028	0.40	0.67	0.13	0.14	1.36	0.15	0.89	2.41
Spray (Direct/Hood)	8R-30	MFWD 170	17,700	200	8	0.084	1.21	2.02	0.70	0.44	4.39	0.81	2.69	7.89
Spray (Direct/Hood)	8R-38	MFWD 170	18,900	200	8	0.066	0.96	1.60	0.59	0.34	3.50	0.68	2.12	6.32
Spray (Direct/Hood)	12R-30	MFWD 170	25,600	200	8	0.056	0.81	1.35	0.67	0.29	3.13	0.78	1.79	5.71
Spray (Direct/Hood)	12R-38	MFWD 170	26,200	200	8	0.044	0.64	1.06	0.54	0.23	2.48	0.63	1.41	4.54
Spray (Direct/Layby)	8R-30	MFWD 170	12,300	200	8	0.084	1.21	2.02	0.48	0.44	4.17	0.56	2.69	7.43
Spray (Direct/Layby)	8R-38	MFWD 170	12,200	200	8	0.066	0.96	1.60	0.38	0.34	3.29	0.44	2.12	5.87
Spray (Direct/Layby)	8R-38 2x1	MFWD 170	16,200	200	8	0.044	0.64	1.06	0.33	0.23	2.27	0.39	1.41	4.08
Spray (Direct/Layby)	10R-30	MFWD 170	12,200	200	8	0.067	0.97	1.62	0.38	0.35	3.33	0.44	2.15	5.94
Spray (Direct/Layby)	12R-30	MFWD 170	17,900	200	8	0.056	0.81	1.35	0.47	0.29	2.93	0.55	1.79	5.27
Spray (Direct/Layby)	12R-38	MFWD 170	16,200	200	8	0.044	0.64	1.06	0.33	0.23	2.27	0.39	1.41	4.08
Spray (Direct/Layby)	16R-20	MFWD 170	10,000	200	8	0.063	0.91	1.51	0.29	0.33	3.06	0.34	2.01	5.42
Spray (Spot)	27'	MFWD 170	5,940	200	8	0.062	0.90	1.50	0.17	0.32	2.90	0.20	1.99	5.10
Spray (Spot)	40'	MFWD 170	7,350	200	8	0.042	0.60	1.01	0.14	0.22	1.99	0.16	1.34	3.50
Spray (Spot)	50'	MFWD 170	7,420	200	8	0.033	0.48	0.81	0.11	0.17	1.59	0.13	1.07	2.80
Spray (Spot)	53'	MFWD 170	7,650	200	8	0.031	0.45	0.76	0.11	0.16	1.50	0.13	1.01	2.65
Spray (Spot)	60'	MFWD 170	10,000	200	8	0.028	0.40	0.67	0.13	0.14	1.36	0.15	0.89	2.41
Stalk Shredder	14'	MFWD 150	13,200	200	10	0.117	1.13	2.49	1.36	0.52	5.51	0.79	3.06	9.36
Stalk Shredder	20'	MFWD 150	30,500	200	10	0.082	0.79	1.74	2.20	0.36	5.10	1.28	2.14	8.53
Stalk Shredder-Flail	12'	MFWD 150	15,800	200	10	0.137	1.32	2.90	1.90	0.61	6.74	1.10	3.57	11.42
Stalk Shredder-Flail	20'	MFWD 150	26,900	200	10	0.082	0.79	1.74	1.94	0.36	4.84	1.13	2.14	8.12
Subsoiler	3 shank	MFWD 190	3,550	100	15	0.204	1.96	5.47	0.24	1.02	8.70	0.57	6.22	15.49
Subsoiler	4 shank	MFWD 225	8,230	100	15	0.153	1.47	4.87	0.42	1.08	7.85	0.99	6.61	15.46
Subsoiler	5 shank	MFWD 225	11,100	100	15	0.122	1.17	3.88	0.45	0.86	6.37	1.06	5.26	12.71
Subsoiler low-till	4 shank	MFWD 225	12,400	100	15	0.153	1.47	4.87	0.63	1.08	8.06	1.49	6.61	16.18
Subsoiler low-till	6 shank	MFWD 225	14,800	100	15	0.102	0.98	3.24	0.50	0.72	5.44	1.18	4.39	11.03
Subsoiler low-till	8 shank	MFWD 225	19,600	100	15	0.076	0.73	2.42	0.50	0.54	4.20	1.18	3.29	8.67
TerraTill Bed w/roll	4R-38	MFWD 225	14,300	150	12	0.160	1.54	5.10	0.83	1.13	8.61	1.38	6.92	16.92

Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, (Continued) and direct and fixed cost per acre, Louisiana 2015.

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-----							
TerraTill Bed w/roll	6R-38	MFWD 225	19,400	150	12	0.107	1.03	3.41	0.75	0.75	5.95	1.25	4.62	11.84
TerraTill Bed w/roll	4R-30	MFWD 225	14,300	150	12	0.204	1.96	6.48	1.05	1.44	10.94	1.75	8.79	21.49
TerraTill Bed w/roll	6R-30	MFWD 225	15,310	150	12	0.136	1.30	4.32	0.75	0.96	7.34	1.25	5.86	14.46
Boll Buggy-1st Pick	2R38*157hp	MFWD 190	26,200	200	10	0.519	4.98	13.92	3.40	2.59	24.91	6.66	15.83	47.41
Boll Buggy-1st pick	4R2x1260hp	MFWD 190	26,200	200	10	0.172	1.65	4.61	1.12	0.86	8.26	2.20	5.25	15.72
Boll Buggy-1st pick	4R30*255hp	MFWD 190	26,200	200	10	0.327	3.14	8.77	2.14	1.63	15.69	4.19	9.97	29.87
Boll Buggy-1st pick	4R30*325hp	MFWD 190	30,600	200	10	0.327	3.14	8.77	2.50	1.63	16.05	4.90	9.97	30.93
Boll Buggy-1st pick	4R38*255hp	MFWD 190	30,600	200	10	0.257	2.47	6.90	1.97	1.28	12.64	3.86	7.85	24.36
Boll Buggy-1st pick	4R38*325hp	MFWD 190	30,600	200	10	0.257	2.47	6.90	1.97	1.28	12.64	3.86	7.85	24.36
Boll Buggy-1st pick	5R30*255hp	MFWD 190	30,600	200	10	0.261	2.51	7.01	2.00	1.30	12.84	3.92	7.98	24.75
Boll Buggy-1st pick	5R38*255hp	MFWD 190	30,600	200	10	0.207	1.98	5.55	1.58	1.03	10.16	3.10	6.31	19.58
Boll Buggy-1st pick	6R30*325hp	MFWD 190	30,600	200	10	0.218	2.09	5.84	1.66	1.09	10.70	3.26	6.65	20.62
Boll Buggy-1st pick	6R38*325hp	MFWD 190	30,600	200	10	0.172	1.65	4.61	1.31	0.86	8.45	2.58	5.25	16.28
Boll Buggy-2nd pick	2R38*157hp	MFWD 190	30,600	200	10	0.440	4.22	11.79	3.36	2.20	21.58	6.59	13.41	41.59
Boll Buggy-2nd pick	4R2x1260hp	MFWD 190	30,600	200	10	0.145	1.40	3.91	1.11	0.72	7.15	2.18	4.44	13.79
Boll Buggy-2nd pick	4R30*255hp	MFWD 190	30,600	200	10	0.277	2.66	7.43	2.12	1.38	13.60	4.15	8.45	26.20
Boll Buggy-2nd pick	4R30*325hp	MFWD 190	30,600	200	10	0.277	2.66	7.43	2.12	1.38	13.60	4.15	8.45	26.20
Boll Buggy-2nd pick	4R38 255hp	MFWD 190	30,600	200	10	0.218	2.09	5.85	1.67	1.09	10.70	3.27	6.65	20.63
Boll Buggy-2nd pick	4R38 325hp	MFWD 190	30,600	200	10	0.218	2.09	5.85	1.67	1.09	10.70	3.27	6.65	20.63
Boll Buggy-2nd pick	5R30*255hp	MFWD 190	30,600	200	10	0.221	2.12	5.94	1.69	1.10	10.88	3.32	6.76	20.96
Boll Buggy-2nd pick	5R38*255hp	MFWD 190	30,600	200	10	0.175	1.68	4.70	1.34	0.87	8.60	2.62	5.34	16.58
Boll Buggy-2nd pick	6R30*325hp	MFWD 190	30,600	200	10	0.184	1.77	4.95	1.41	0.92	9.06	2.76	5.63	17.47
Boll Buggy-2nd pick	6R38*325hp	MFWD 190	30,600	200	10	0.145	1.40	3.91	1.11	0.72	7.15	2.18	4.44	13.79
Boll Buggy-Stripper	13' Bcast	MFWD 150	30,600	200	10	0.251	2.41	5.32	1.92	1.12	10.79	3.77	6.54	21.10
Boll Buggy-Stripper	16' Bcast	MFWD 150	30,600	200	10	0.204	1.96	4.32	1.56	0.91	8.77	3.06	5.31	17.15
Boll Buggy-Stripper	19' Bcast	MFWD 150	30,600	200	10	0.172	1.65	3.64	1.31	0.77	7.38	2.58	4.47	14.44
Boll Buggy-Stripper	4R30*2X1Br	MFWD 150	30,600	200	10	0.218	2.09	4.61	1.66	0.97	9.35	3.26	5.66	18.29
Boll Buggy-Stripper	4R30*Brush	MFWD 150	30,600	200	10	0.327	3.14	6.92	2.50	1.46	14.03	4.90	8.50	27.44
Boll Buggy-Stripper	4R38*2X1Br	MFWD 150	30,600	200	10	0.172	1.65	3.64	1.31	0.77	7.38	2.58	4.47	14.44
Boll Buggy-Stripper	4R38*Brush	MFWD 150	30,600	200	10	0.257	2.47	5.45	1.97	1.15	11.05	3.86	6.69	21.60
Boll Buggy-Stripper	5R30*Brush	MFWD 150	30,600	200	10	0.261	2.51	5.54	2.00	1.17	11.22	3.92	6.80	21.95
Boll Buggy-Stripper	5R38*Brush	MFWD 150	30,600	200	10	0.207	1.98	4.38	1.58	0.92	8.88	3.10	5.38	17.36
Boll Buggy-Stripper	6R30*Brush	MFWD 150	30,600	200	10	0.218	2.09	4.61	1.66	0.97	9.35	3.26	5.66	18.29
Module Builder-1st	4R-30(255)	MFWD 190	34,700	200	10	0.327	6.28	8.77	2.84	1.63	19.53	5.56	9.97	35.07
Module Builder-1st	4R-30(325)	MFWD 190	34,700	200	10	0.327	6.28	8.77	2.84	1.63	19.53	5.56	9.97	35.07
Module Builder-1st	4R-38(255)	MFWD 190	34,700	200	10	0.257	4.94	6.90	2.23	1.28	15.38	4.37	7.85	27.61
Module Builder-1st	4R-38(325)	MFWD 190	34,700	200	10	0.257	4.94	6.90	2.23	1.28	15.38	4.37	7.85	27.61
Module Builder-1st	4R2x1260hp	MFWD 190	34,700	200	10	0.172	3.30	4.61	1.49	0.86	10.28	2.92	5.25	18.46
Module Builder-1st	5R-30(255)	MFWD 190	34,700	200	10	0.261	5.02	7.01	2.27	1.30	15.62	4.44	7.98	28.05
Module Builder-1st	5R-38(255)	MFWD 190	34,700	200	10	0.207	3.97	5.55	1.79	1.03	12.36	3.51	6.31	22.19
Module Builder-1st	6R-30(325)	MFWD 190	34,700	200	10	0.218	4.19	5.84	1.89	1.09	13.02	3.70	6.65	23.38
Module Builder-1st	6R-38(325)	MFWD 190	34,700	200	10	0.172	3.30	4.61	1.49	0.86	10.28	2.92	5.25	18.46
Module Builder-2nd	2R-38(157)	MFWD 190	34,700	200	10	0.440	8.45	11.79	3.81	2.20	26.26	7.47	13.41	47.15
Module Builder-2nd	4R-30(255)	MFWD 190	34,700	200	10	0.277	5.32	7.43	2.40	1.38	16.54	4.71	8.45	29.70
Module Builder-2nd	4R-30(325)	MFWD 190	34,700	200	10	0.277	5.32	7.43	2.40	1.38	16.54	4.71	8.45	29.70
Module Builder-2nd	4R-38(255)	MFWD 190	34,700	200	10	0.218	4.19	5.85	1.89	1.09	13.02	3.70	6.65	23.39
Module Builder-2nd	4R-38(325)	MFWD 190	34,700	200	10	0.218	4.19	5.85	1.89	1.09	13.02	3.70	6.65	23.39
Module Builder-2nd	4R2x1 255	MFWD 190	34,700	200	10	0.145	2.80	3.91	1.26	0.72	8.70	2.47	4.44	15.63
Module Builder-2nd	5R-30(255)	MFWD 190	34,700	200	10	0.221	4.25	5.94	1.92	1.10	13.23	3.76	6.76	23.76
Module Builder-2nd	5R-38(255)	MFWD 190	34,700	200	10	0.175	3.36	4.70	1.52	0.87	10.47	2.98	5.34	18.80
Module Builder-2nd	6R-30(325)	MFWD 190	34,700	200	10	0.184	3.54	4.95	1.60	0.92	11.03	3.14	5.63	19.80
Module Builder-2nd	6R-38(325)	MFWD 190	34,700	200	10	0.145	2.80	3.91	1.26	0.72	8.70	2.47	4.44	15.63
Module Builder-Strip	13' Bcast	MFWD 150	34,700	200	10	0.251	4.83	5.32	2.18	1.12	13.47	4.27	6.54	24.29
Module Builder-Strip	16' Brush	MFWD 150	34,700	200	10	0.204	3.92	4.32	1.77	0.91	10.94	3.47	5.31	19.73
Module Builder-Strip	19' Brush	MFWD 150	34,700	200	10	0.172	3.30	3.64	1.49	0.77	9.21	2.92	4.47	16.62
Module Builder-Strip	4R-30	MFWD 150	34,700	200	10	0.327	6.28	6.92	2.84	1.46	17.51	5.56	8.50	31.57
Module Builder-Strip	4R-30 2X1	MFWD 150	34,700	200	10	0.218	4.19	4.61	1.89	0.97	11.67	3.70	5.66	21.05
Module Builder-Strip	4R-38	MFWD 150	34,700	200	10	0.257	4.94	5.45	2.23	1.15	13.79	4.37	6.69	24.86
Module Builder-Strip	4R-38 2X1	MFWD 150	34,700	200	10	0.172	3.30	3.64	1.49	0.77	9.21	2.92	4.47	16.62
Module Builder-Strip	5R-30	MFWD 150	34,700	200	10	0.261	5.02	5.54	2.27	1.17	14.01	4.44	6.80	25.26
Module Builder-Strip	5R-38	MFWD 150	34,700	200	10	0.207	3.97	4.38	1.79	0.92	11.08	3.51	5.38	19.98
Module Builder-Strip	6R-30	MFWD 150	34,700	200	10	0.218	4.19	4.61	1.89	0.97	11.67	3.70	5.66	21.05