

# **Projected Costs and Returns Crop Enterprise Budgets for Wheat Production in Louisiana, 2016**

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



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by

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## Introduction

This publication presents estimates of projected costs and returns for wheat production in Louisiana for the 2016 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 2016 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 2016 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 4.50% 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 \$2.00 per gallon and \$2.25 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 5.00%. 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](http://www.lsuagcenter.com)

Table 1.A Estimated costs per Acre  
Wheat, 8-row equipment, drill planted, non-irrigated,  
alluvial soil, Northeast Louisiana, 2016.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	1.0000	6.50	_____
App by Air ( 3 gal)	appl	5.00	2.0000	10.00	_____
FERTILIZERS					
LA Phosphate	lb	0.54	40.0000	21.60	_____
LA Potash	lb	0.35	40.0000	14.00	_____
LA Nitrogen	lb	0.43	90.0000	38.70	_____
HERBICIDES					
Harmony Extra	oz	14.43	0.4500	6.49	_____
INSECTICIDES					
Surfactant	pt	5.35	0.2000	1.07	_____
Mustang Max	oz	1.48	4.0000	5.92	_____
Karate Z	oz	3.40	2.1300	7.24	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.38	90.0000	34.20	_____
CUSTOM FERT/LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	_____
App Fert by Air(Min)	appl	7.00	1.0000	7.00	_____
CUSTOM HARVEST/HAUL					
Haul Wheat	bu	0.26	60.0000	15.60	_____
OPERATOR LABOR					
Harvesters	hour	13.40	0.0851	1.14	_____
LA Hired Labor					
Implements	hour	10.18	0.1097	1.12	_____
Tractors	hour	10.18	0.2785	2.83	_____
DIESEL FUEL					
Tractors	gal	2.00	2.9104	5.82	_____
Harvesters	gal	2.00	1.2047	2.41	_____
REPAIR & MAINTENANCE					
Implements	Acre	4.18	1.0000	4.18	_____
Tractors	Acre	1.72	1.0000	1.72	_____
Harvesters	Acre	2.79	1.0000	2.79	_____
INTEREST ON OP. CAP.	Acre	3.53	1.0000	3.53	_____
				-----	
TOTAL DIRECT EXPENSES				209.04	_____
FIXED EXPENSES					
Implements	Acre	8.49	1.0000	8.49	_____
Tractors	Acre	10.82	1.0000	10.82	_____
Harvesters	Acre	11.02	1.0000	11.02	_____
				-----	
TOTAL FIXED EXPENSES				30.33	_____
				-----	
TOTAL SPECIFIED EXPENSES				239.37	_____

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, 2016.

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	1.06	1.49	0.29	0.58	0.08	0.86				4.28
LA Phosphate	lb											40.0000	0.54	21.60	21.60
LA Potash	lb											40.0000	0.35	14.00	14.00
Lime (Spread)	ton			0.33	Oct							0.3300	46.00	15.18	15.18
Disk Harrow	28'	MFWD 225	0.070	1.00	Oct	2.12	3.15	0.97	2.05	0.07	0.71				9.00
Row Cond (Plant)	27'	MFWD 190	0.078	1.00	Oct	1.98	2.78	0.24	1.03	0.07	0.80				6.83
Ditcher		2WD 130	0.020	1.00	Oct	0.33	0.36	0.04	0.05	0.02	0.20				0.98
Grain Drill & Pre	30'	MFWD 225	0.067	1.00	Dec	2.05	3.04	1.98	3.79	0.13	1.38				12.24
Wheat Seed Private	lb											90.0000	0.38	34.20	34.20
App by Air ( 5 gal)	appl			1.00	Dec							1.0000	6.50	6.50	6.50
Harmony Extra	oz											0.4500	14.43	6.49	6.49
Surfactant	pt											0.2000	5.35	1.07	1.07
App Fert by Air(Min)	appl			1.00	Feb							1.0000	7.00	7.00	7.00
LA Nitrogen	lb											90.0000	0.43	38.70	38.70
App by Air ( 3 gal)	appl			1.00	Feb							1.0000	5.00	5.00	5.00
Mustang Max	oz											4.0000	1.48	5.92	5.92
App by Air ( 3 gal)	appl			1.00	Apr							1.0000	5.00	5.00	5.00
Karate Z	oz											2.1300	3.40	7.24	7.24
Header Wheat/Sorghum	30'	Rigid 275hp	0.085	1.00	May	5.20	11.02	0.66	0.99	0.08	1.14				19.01
Haul Wheat	bu			1.00	May							60.0000	0.26	15.60	15.60
TOTALS						12.74	21.84	4.18	8.49	0.47	5.09			183.50	235.84
INTEREST ON OPERATING CAPITAL															3.53
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															239.37



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, 2016.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.41	2.56	2.74	2.94	3.19	3.48	3.84	4.28	4.86	5.62	6.70
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-128	-124	-118	-112	-105	-96	-85	-72	-55	-32	0
			-159	-154	-149	-142	-135	-126	-116	-102	-85	-62	-30
60	36.00	bu	-115	-110	-103	-96	-87	-77	-64	-48	-27	0	38
			-146	-140	-134	-126	-118	-107	-94	-78	-57	-30	8
70	42.00	bu	-102	-96	-89	-80	-70	-57	-42	-24	0	32	77
			-133	-126	-119	-110	-100	-88	-73	-54	-30	1	46
80	48.00	bu	-90	-82	-74	-64	-52	-38	-21	0	27	64	115
			-120	-113	-104	-94	-82	-68	-51	-30	-2	34	85
90	54.00	bu	-77	-68	-59	-48	-35	-19	0	24	55	96	154
			-107	-99	-89	-78	-65	-49	-30	-6	24	66	124
100	60.00	bu	-64	-55	-44	-32	-17	0	21	48	82	128	193
			-94	-85	-74	-62	-47	-30	-8	17	52	98	162
110	66.00	bu	-51	-41	-29	-16	0	19	42	72	110	160	231
			-81	-71	-60	-46	-30	-11	12	42	79	130	201
120	72.00	bu	-38	-27	-14	0	17	38	64	96	137	193	270
			-68	-57	-45	-30	-12	8	34	66	107	162	239
130	78.00	bu	-25	-13	0	16	35	57	85	120	165	225	308
			-56	-44	-30	-14	4	27	55	90	135	194	278
140	84.00	bu	-12	0	14	32	52	77	107	144	193	257	347
			-43	-30	-15	1	22	46	76	114	162	227	317
150	90.00	bu	0	13	29	48	70	96	128	168	220	289	386
			-30	-16	-0	17	39	66	98	138	190	259	355

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, 2016.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.74	2.92	3.13	3.36	3.65	3.98	4.40	4.92	5.58	6.47	7.71
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-118	-113	-107	-99	-91	-81	-68	-53	-33	-6	30
			-148	-143	-137	-130	-121	-111	-99	-83	-63	-37	0
60	36.00	bu	-103	-97	-89	-81	-71	-59	-44	-25	-1	30	75
			-134	-127	-120	-111	-101	-89	-74	-55	-31	0	44
70	42.00	bu	-88	-81	-72	-62	-50	-36	-19	2	30	67	119
			-119	-111	-103	-93	-81	-67	-49	-27	0	37	89
80	48.00	bu	-73	-65	-55	-44	-30	-14	5	30	62	104	164
			-104	-95	-85	-74	-60	-44	-24	0	31	74	134
90	54.00	bu	-59	-49	-38	-25	-10	7	30	58	94	142	209
			-89	-79	-68	-55	-40	-22	0	27	63	111	178
100	60.00	bu	-44	-33	-21	-6	10	30	55	86	126	179	253
			-74	-63	-51	-37	-20	0	24	55	95	148	223
110	66.00	bu	-29	-17	-4	11	30	52	79	114	157	216	298
			-59	-47	-34	-18	0	22	49	83	127	186	268
120	72.00	bu	-14	-1	13	30	50	75	104	142	189	253	343
			-44	-31	-17	0	20	44	74	111	159	223	312
130	78.00	bu	0	14	30	48	70	97	129	169	221	290	387
			-29	-15	0	18	40	67	99	139	191	260	357
140	84.00	bu	15	30	47	67	91	119	154	197	253	328	432
			-14	0	17	37	60	89	124	167	223	297	402
150	90.00	bu	30	46	64	86	111	142	179	225	285	365	477
			0	15	34	55	81	111	148	195	255	335	446

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, 2016.

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	6.50	1.0000	6.50	_____
FERTILIZERS					
LA Nitrogen	lb	0.43	70.5000	30.32	_____
LA Phosphate	lb	0.54	45.0000	24.30	_____
LA Potash	lb	0.35	45.0000	15.75	_____
INSECTICIDES					
Methyl Parathion	pt	5.79	1.5000	8.69	_____
SEED/PLANTS					
Wheat Seed Private	lb	0.38	75.0000	28.50	_____
CUSTOM FERT/LIME					
Custom Spread(Truc	appl	4.50	1.0000	4.50	_____
App Fert by Air	cwt	7.00	0.9000	6.30	_____
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	10.18	0.2837	2.88	_____
DIESEL FUEL					
Tractors	gal	2.00	3.4985	7.00	_____
Self-Propelled	gal	2.00	1.4915	2.98	_____
REPAIR & MAINTENANCE					
Implements	acre	3.68	1.0000	3.68	_____
Tractors	acre	2.02	1.0000	2.02	_____
Self-Propelled	acre	8.40	1.0000	8.40	_____
INTEREST ON OP. CAP.	acre	3.29	1.0000	3.29	_____
TOTAL DIRECT EXPENSES				175.80	_____
FIXED EXPENSES					
Implements	acre	8.44	1.0000	8.44	_____
Tractors	acre	12.60	1.0000	12.60	_____
Self-Propelled	acre	12.77	1.0000	12.77	_____
TOTAL FIXED EXPENSES				33.81	_____
TOTAL SPECIFIED EXPENSES				209.61	_____

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, 2016.

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	4.87	6.81	1.82	3.85	0.12	1.25				18.60
Custom Spread(Truc	appl			1.00	Nov							1.0000	4.50	4.50	4.50
LA Nitrogen	lb											30.0000	0.43	12.90	12.90
LA Phosphate	lb											45.0000	0.54	24.30	24.30
LA Potash	lb											45.0000	0.35	15.75	15.75
Field Cultivate	32'	4WD 300	0.046	1.00	Nov	1.85	2.59	0.46	1.93	0.04	0.47				7.30
Grain Drill	20'	MFWD 150	0.094	1.00	Nov	1.90	2.64	1.36	2.61	0.18	1.81				10.32
Wheat Seed Private	lb											75.0000	0.38	28.50	28.50
Ditcher		MFWD 150	0.020	1.00	Nov	0.40	0.56	0.04	0.05	0.02	0.20				1.25
App Fert by Air	cwt			1.00	Feb							0.9000	7.00	6.30	6.30
LA Nitrogen	lb											40.5000	0.43	17.42	17.42
LARice GPS Charge-SW acre												1.0000	0.35	0.35	0.35
App by Air ( 5 gal)	appl			1.00	Apr							1.0000	6.50	6.50	6.50
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	11.38	12.77			0.23	3.54				27.69
Haul Wheat	bu			1.00	May							60.0000	0.26	15.60	15.60
TOTALS						20.40	25.37	3.68	8.44	0.60	7.27			141.16	206.32
INTEREST ON OPERATING CAPITAL															3.29
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															209.61

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, 2016.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.04	2.16	2.31	2.48	2.68	2.93	3.22	3.59	4.07	4.70	5.59
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-106	-102	-98	-93	-87	-80	-71	-60	-45	-26	0
			-140	-136	-132	-127	-121	-113	-104	-93	-79	-60	-33
60	36.00	bu	-96	-91	-86	-80	-72	-64	-53	-40	-22	0	32
			-129	-125	-120	-113	-106	-97	-87	-73	-56	-33	-1
70	42.00	bu	-85	-80	-73	-66	-58	-48	-35	-20	0	26	64
			-119	-113	-107	-100	-92	-81	-69	-53	-33	-7	30
80	48.00	bu	-74	-68	-61	-53	-43	-32	-17	0	22	53	96
			-108	-102	-95	-87	-77	-65	-51	-33	-10	19	62
90	54.00	bu	-64	-57	-49	-40	-29	-16	0	20	45	80	128
			-97	-91	-83	-73	-62	-49	-33	-13	11	46	94
100	60.00	bu	-53	-45	-36	-26	-14	0	17	40	68	106	160
			-87	-79	-70	-60	-48	-33	-16	6	34	72	126
110	66.00	bu	-42	-34	-24	-13	0	16	35	60	91	133	192
			-76	-68	-58	-47	-33	-17	1	26	57	99	158
120	72.00	bu	-32	-22	-12	0	14	32	53	80	114	160	224
			-65	-56	-46	-33	-19	-1	19	46	80	126	190
130	78.00	bu	-21	-11	0	13	29	48	71	100	137	186	256
			-55	-45	-33	-20	-4	14	37	66	103	153	222
140	84.00	bu	-10	0	12	26	43	64	88	120	160	213	288
			-44	-33	-21	-7	9	30	55	86	126	179	254
150	90.00	bu	0	11	24	40	58	80	106	140	183	240	320
			-33	-22	-9	6	24	46	72	106	149	206	286

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, 2016.

			-----BREAKEVEN PRICE-----										
LA Wheat			2.41	2.56	2.74	2.95	3.19	3.49	3.85	4.30	4.87	5.64	6.72
PERCENT	YIELD	UNIT	-----dollars-----										
50	30.00	bu	-95	-90	-85	-79	-71	-63	-52	-38	-21	1	33
			-129	-124	-119	-113	-105	-96	-86	-72	-55	-32	0
60	36.00	bu	-82	-77	-70	-63	-54	-43	-30	-14	6	33	72
			-116	-110	-104	-96	-88	-77	-64	-48	-27	0	38
70	42.00	bu	-69	-63	-55	-47	-36	-24	-9	9	33	66	111
			-103	-96	-89	-80	-70	-58	-43	-24	0	32	77
80	48.00	bu	-56	-49	-40	-30	-19	-4	12	33	61	98	150
			-90	-83	-74	-64	-52	-38	-21	0	27	64	116
90	54.00	bu	-43	-35	-25	-14	-1	14	33	58	89	130	188
			-77	-69	-59	-48	-35	-19	0	24	55	96	155
100	60.00	bu	-30	-21	-10	1	16	33	55	82	116	163	227
			-64	-55	-44	-32	-17	0	21	48	83	129	193
110	66.00	bu	-17	-7	3	17	33	53	76	106	144	195	266
			-51	-41	-29	-16	0	19	43	72	110	161	232
120	72.00	bu	-4	6	18	33	51	72	98	130	172	227	305
			-38	-27	-14	0	17	38	64	96	138	193	271
130	78.00	bu	7	19	33	49	69	91	120	155	200	260	344
			-25	-13	0	16	35	58	86	121	166	226	310
140	84.00	bu	20	33	48	66	86	111	141	179	227	292	382
			-12	0	14	32	52	77	107	145	193	258	349
150	90.00	bu	33	47	63	82	104	130	163	203	255	324	421
			0	13	29	48	70	96	129	169	221	290	387

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 2016.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
ADJUVANTS			Terraclor 2EC	pt	1.87
Crop Oil ( Seed Oil)	pt	4.44	Terraclor Super X EC	pt	3.95
Crop Oil (Petroleum)	pt	3.86	Terraclor Super X G	lb	2.82
Surfactant	pt	5.35	Tilt 3.6 EC	oz	0.86
CUSTOM FERT/LIME			Vitavax 200	oz	0.47
App Fert by Air	cwt	7.00	Vitavax M Flowable	oz	1.06
App Fert by Air(Min)	appl	7.00	Vitavax RTU-Thiram	oz	0.40
Custom Apply Fert	acre	7.00	Vitavax T-L	oz	0.29
Custom Spread(Truc	appl	4.50	GIN/DRY		
Lime (Spread)	ton	46.00	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	0.13
Haul Wheat	bu	0.26	Mepex	oz	0.10
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	4.00	Ammonium Sulfate	lb	0.24
App by Air ( 3 gal)	appl	5.00	Boll'd	pt	7.01
App by Air ( 5 gal)	appl	6.50	CottonQuik	pt	5.01
App by Air (10 gal)	appl	8.75	Def 6	pt	8.25
LARice GPS Charge-SW	acre	0.35	Def/Folex	pt	7.55
LARice GPS Charge_NE	acre	0.25	Dropp 50 WP	lb	45.45
FERTILIZERS			Dropp SC	oz	0.44
Amm Nitrate (34% N)	cwt	22.50	Ethephon 6E	pt	4.69
Amm Sulfate (21% N)	cwt	17.25	Finish 6	pt	8.93
Fert 10-34-0	cwt	32.50	Folex 6EC	pt	9.92
Fert 41-0-0-4	cwt	20.50	Ginstar EC	pt	30.60
LA Nitrogen	lb	0.43	Gramoxone Extra	pt	4.86
LA Phosphate	lb	0.54	Gramoxone Inteon	oz	0.25
LA Potash	lb	0.35	Gramoxone Max	pt	4.06
Phosphorus(46% P2O5)	cwt	25.00	Harvade 5F	oz	0.67
Potash (60% K2O)	cwt	21.27	Leafless	pt	18.56
Sulfur	lb	0.34	Prep	pt	4.00
UAN (32% N)	cwt	15.95	Sodium Chlorate 3L	gal	3.50
UAN + Sulfur (28% N)	cwt	16.33	Solium Chlorate 6L	gal	5.57
Urea, Solid (46% N)	cwt	20.83	Starfire	pt	0.00
Zinc	lb	0.50	HERBICIDES		
FUNGICIDES			2,4-D Amine 4	pt	1.85
Apron Maxx RTA	oz	0.86	2,4-D Ester	pt	3.00
Apron XL	oz	6.98	AAtrex 4L	pt	2.46
Apron XL LS	oz	6.98	AAtrex NINE-O	lb	3.60
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	4.03	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	8.52	Assure II	oz	0.75
Dithane Rainsheild	lb	2.75	Atrazine 4L	pt	1.50
Fungicide	lb	2.82	Atrazine 90DF	lb	3.60
Gem 25 WG	oz	3.70	Authority 75DF	lb	26.95
Manzate 75 DF	lb	4.81	Axiom 68DF	lb	25.74
Manzate Flowable	pt	4.60	Backdraft	pt	2.40
Moncut 70 DF	lb	33.30	Banvel	pt	11.98
Orbit	oz	2.75	Basagran	pt	12.90
Prevail	lb	28.50	Basis Gold	lb	9.00
Quadris	oz	2.66	Beacon 75% WSP	oz	34.87
Ridomil GoldPC 10G	lb	2.08	Beyond	oz	4.43
Ridomil Gold PC	lb	4.00	Bicep II Magnum	qt	10.37
Ridomil Gold PC Liq	oz	6.54	Bicep II zmsgnum	qt	10.97
Rovral 4F	pt	11.14	Bladex 4L	qt	0.00
Rovral WG	lb	0.00	Bladex 90DF	lb	0.00
Shelter	oz	8.50			
Stiletto	oz	0.58			
Stratego	pt	25.00			
Terrachlor Flowable	pt	4.74			

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2016.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Blazer 2L	pt	0.00	Guardsman Max	pt	7.22
HERBICIDES (CON'T)			Harmony Extra	oz	14.43
Blazer Ultra	pt	9.79	Hoelon 3EC	pt	11.03
Boa	pt	3.63	Karmex DF	lb	5.93
Bolero 8EC	pt	7.67	LA Asulox/Asulam	gal	38.80
Boundary	pt	10.05	LA Weedmaster	qt	7.25
Buctril 4EC	pt	17.06	Lariat	qt	7.58
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	3.11	Layby Pro	qt	6.30
Butyrac 200 (2,4-DB)	pt	4.05	Lexone 75DF	lb	18.90
Canopy 75%	oz	2.70	Liberty	pt	8.84
Canopy XL	oz	2.70	Lightning	oz	14.25
Caparol 4L	pt	4.02	Lightning	oz	14.25
Caparol Accu-Pak	lb	0.00	Linex 4L	pt	10.56
Celebrity Plus	lb	84.50	Londax 60DF	oz	17.13
Clarity	pt	12.89	Lorox 50DF	lb	23.52
Classic	oz	16.85	MSMA 6.6	pt	3.38
Clincher EC	oz	2.30	MSMA6 + Surfactant	pt	2.63
Cobra 2EC	oz	1.68	Newpath 2SL	oz	3.68
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	16.80
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	12.41
Cornerstone	pt	2.50	Poast Plus	pt	8.60
Cotoran 4L	pt	5.99	Propanil 4E	qt	5.15
Cotoran DF	lb	7.92	Prowl 3.3 EC	pt	5.62
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	13.56
Cypro 90DF	lb	0.00	Raptor	oz	4.37
Delta Goal	pt	9.44	Reflex 2LC	pt	6.30
Denim 0.16 EC	pt	24.06	Regiment 80WP	oz	4.38
Detail	pt	7.99	Remedy	pt	8.45
Direx 4L	pt	4.41	Resource .86EC	pt	29.40
Direx 80 DF	lb	7.37	Ricestar	pt	22.55
Diuron 4L	pt	4.15	Roundup Original	pt	6.00
Diuron 80 DF	lb	6.20	Roundup Original Max	oz	0.38
Domain 60DF	lb	12.75	Roundup Power Max	pt	1.25
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	13.50	Roundup WeatherMax	oz	0.08
Dual Magnum	pt	13.01	Scepter 70 DG	oz	4.52
Duet	pt	5.09	Select 2EC	oz	0.78
Evik DF 80W	lb	11.22	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	4.19	Stam 4E	qt	5.12
Facet 75DF	lb	50.00	Stam 80 EDF	lb	9.50
First Rate	oz	41.50	Staple 85%	oz	16.01
Flexstar HL	pt	4.50	Staple Plus	oz	8.55
FloMet 4L	pt	4.74	Steadfast	oz	12.32
Freedom	qt	2.51	Steel	pt	10.28
Front Row	oz	21.92	Storm	pt	11.88
Frontier 6.0	oz	0.63	Strongarm	oz	51.19
Fultime	pt	5.25	Superwham	qt	9.18
Fusilade DX	oz	1.08	Suprend	lb	13.49
Fusion	pt	26.89	Surpass 20G	lb	2.36
Glyphos	pt	1.80	Surpass EC	qt	28.06
Glyphomax	pt	3.49	Touchdown	qt	9.32
Glyphosate Plus 4L	pt	2.00	Touchdown 4 IQ	pt	3.33
Glystar Plus	pt	2.45	Touchdown Total	qt	7.13
Goal 2XL	pt	9.83	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	29.47	Trifluralin 4EC	pt	3.60
Guardsman	pt	4.66	Trilin 10G	lb	0.79
			Trilin 4EC	pt	2.12

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2016.

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
Typhoon	qt	13.06	Sevin 80S	lb	7.40
Valor WP	oz	4.23	Sevin XLR Plus	qt	12.50
Whip 360	pt	25.08	Spintor 2SC	oz	4.93
Zorial Rapid 80DF	lb	14.10	Steward	pt	36.33
INSECTICIDES			Synthetic Pyrethroid	oz	0.00
Acephate 80SP	lb	0.00	Temik 15G Grit	lb	4.00
Acephate 90SP	lb	7.45	Thimet 20-G	lb	3.65
Admire 2 Flowable	oz	4.78	Thionex 3EC	pt	4.17
Ammo 2.5 EC	oz	0.78	Thionex 50W	lb	10.45
Asana .66 XL	oz	0.57	Tracer	oz	9.73
Aztec 2.1% G	lb	3.68	Trimax	oz	1.85
Baythroid 2	oz	2.30	Vydate C-LV	oz	0.89
INSECTICIDES (CON'T)			Warrior Z	oz	1.80
Bidrin 8L	oz	0.98	Warrior ZT	oz	1.88
Brigade EC	pt	3.50	SEED/PLANTS		
Brigade WSB	lb	22.47	Corn Seed Bt	thous	2.60
Capture 2EC	oz	2.40	Corn Seed BtRR	thous	3.47
Carbamate	oz	0.00	Corn Seed Conv.	thous	2.61
Centric 40WG	oz	4.95	Corn Seed RR	thous	3.08
Comite	pt	8.46	Corn Seed VT3	thous	3.52
Condor XL	pt	0.00	Corn Seed VT3Pro	thous	3.52
Confirm 2F	oz	1.86	Cotton Seed BG/RR	thous	0.62
Counter 15G	lb	4.51	Cotton Seed BGII/RRF	thous	0.61
Counter CR	lb	2.65	Cotton Seed Bt	thoud	0.28
Curacron 8E	pt	10.75	Cotton Seed BtRR	thous	0.74
Decis 1.5EC	oz	2.84	Cotton Seed Bxn	thous	0.00
Declare	pt	4.08	Cotton Seed Conv.	thous	0.00
Denim 0.16EC	pt	32.63	Cotton Seed Liberty	thous	1.05
Di-Syston 15G	lb	3.48	Cotton Seed Liberty	thous	1.05
Di-Syston 8	pt	14.32	Cotton Seed RR	thous	0.63
Diamond .83EC	pt	19.50	Cotton Seed RR	thous	0.63
Dimethoate 4E	pt	6.27	Cotton Seed WS	thous	0.49
Dimilin 2L	oz	2.02	Cotton Seed WS/RR	thous	0.00
Dipel DF	lb	15.09	Cotton Seed WS/RRF	thous	0.59
Dipel ES	pt	5.42	Sorghum Concept	lb	2.29
Force 3G	lb	6.90	Sorghum Hybrid Sudax	lb	1.20
Furadan 3G	lb	0.00	Sorghum NonConcept	lb	1.18
Furadan 4F	pt	9.81	Soybean Seed LL	lb	1.15
Fury 1.5 EC	oz	1.30	Soybean Seed Private	lb	0.38
Gaicho 480	oz	5.80	Soybean Seed Public	lb	0.00
Intrepid 2F	oz	6.13	Soybean Seed RR	lb	1.11
Intruder 70WP	oz	9.83	Soybean Seed Stack	lb	1.28
Karate Z	oz	3.40	Wheat Seed Private	lb	0.38
Lannate LV	pt	11.08	Wheat Seed Public	lb	0.00
Lannate SP	oz	2.13	SERVICE FEE		
Larvin 3.2	oz	0.63	Cotton Checkoff	bale	2.56
Leverage 2.7	oz	2.12	Cotton Storage	bale	25.00
Lorsban 15G	lb	2.15	Crop Consultant	acre	7.00
Lorsban 4E	pt	6.02	Insect Scouting	acre	7.00
Malathion 57EC	pt	4.23	Rice Consultant	acre	8.00
Malathion 8E	pt	5.60	SC Treating Charge	acre	0.00
Malathion ULV	pt	4.93	Survey & Mark Levees	acre	4.50
Mepichlor 4.2% Liq	pt	5.91	Survey & Mark Levees	acre	4.50
Methyl Parathion	pt	5.79	BG Cot Tech Fee	thous	0.28
Monitor 4	pt	16.50	BG Cot Tech Fee	cap/ac	19.50
Monitor 4	pt	16.50	BG II Cot Tech Fee	thous	0.76
Mustang Max	oz	1.48	BG II Cot Tech Fee	cap/ac	31.91
Organophosphate	oz	0.00	BG II/RR Tech Fee	thous	1.49
Orthene 90S	lb	5.75	BG II/RR Tech Fee	cap/ac	62.69
Orthene 97	lb	10.59	BGII/RRF Cot Tech Fe	thous	1.49
Ovasyn	pt	0.00	BGII/RRF Cot Tech Fe	cap/ac	69.25
Ovicide	oz	0.00	Eradication Fee	acre	6.00
Penncap M	pt	6.71	Eradication Zone 1	acre	6.00
Phaser 3E	qt	8.13	Eradication Zone 1A	acre	6.00
Pirate 3SC	oz	0.00	Eradication Zone 1B	acre	6.00
Pounce 25WP	lb	15.16	Eradication Zone 2	acre	6.00
Pounce 3.2 EC	oz	0.91	Eradication Zone 3	acre	6.00
Provado 1.6F	oz	1.94	Eradication Zone 4	acre	6.00
Scout X-TRA	oz	0.00	RR Cotton Tech Fee	thous	1.04

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

ITEM NAME	UNIT	PRICE	ITEM NAME	UNIT	PRICE
		dollars			dollars
RR Cotton Tech Fee	cap/ac	43.66	RRF Cotton Tech Fee	thous	1.04
RR Cotton Tech Fee	thous	1.04	RRF Cotton Tech Fee	cap/ac	48.25
RR Cotton Tech Fee	cap/ac	43.66			



Appendix Table 2. Tractors: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, Louisiana 2016.

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	13.40	19.56	0.00	32.96	0.00	32.96
Combine (200-249 hp)	240hp	161,548	300	8	12.35	13.40	24.70	16.82	54.92	66.39	121.32
Combine (225-274 hp)	Track250hp	0	300	8	12.87	13.40	25.74	0.00	39.14	0.00	39.14
Combine (250-299 hp)	275hp	315,000	300	8	14.15	13.40	28.30	32.81	74.51	129.47	203.98
Combine (250-299hp)	Grass295hp	218,222	300	8	15.18	13.40	30.36	22.73	66.49	89.69	156.18
Combine (275-299 hp)	Track290hp	0	300	8	14.93	13.40	29.86	0.00	43.26	0.00	43.26
Combine (300-349 hp)	325hp	332,000	300	8	16.73	13.40	33.46	34.58	81.44	136.45	217.90
Combine (300-349hp)	Track320hp	0	300	8	16.47	13.40	32.94	0.00	46.34	0.00	46.34
Combine (350-379 hp)	370hp	344,000	300	8	19.04	13.40	38.08	35.83	87.31	141.39	228.70
Combine (350-379 hp)	Track365hp	0	300	8	18.79	13.40	37.58	0.00	50.98	0.00	50.98
Cotton Stripper	173hp	170,000	200	8	8.08	13.40	16.16	26.56	56.12	104.80	160.93
SC Tractor 93 MDR	93	46,683	600	10	4.79	10.18	9.58	2.72	22.48	7.84	30.33
SC Tractpr 68 MDR	68	27,049	600	10	3.50	10.18	7.00	1.57	18.75	4.54	23.30
Tractor( 40-59hp)Cab	2WD 50	31,100	600	8	2.57	10.18	5.14	0.97	16.29	5.84	22.14
Tractor( 40-59hp)Cab	MFWD 50	38,100	600	8	2.57	10.18	5.14	1.19	16.51	7.16	23.68
Tractor( 40-59hp)RB	2WD 50	18,500	600	8	2.57	10.18	5.14	0.57	15.90	3.47	19.38
Tractor( 40-59hp)RB	MFWD 50	23,600	600	8	2.57	10.18	5.14	0.73	16.06	4.43	20.50
Tractor( 60-89hp)CAB	2WD 75	47,700	600	8	3.86	10.18	7.72	1.49	19.39	8.97	28.36
Tractor( 60-89hp)CAB	MFWD 75	49,300	600	8	3.86	10.18	7.72	1.54	19.44	9.27	28.71
Tractor( 60-89hp)RB	2WD 75	37,000	600	8	3.86	10.18	7.72	1.15	19.05	6.95	26.01
Tractor( 60-89hp)RB	MFWD 75	37,800	600	8	3.86	10.18	7.72	1.18	19.08	7.10	26.19
Tractor( 90-119hp)CB	2WD 105	65,300	600	8	5.40	10.18	10.80	2.04	23.02	12.28	35.30
Tractor( 90-119hp)CB	MFWD 105	78,300	600	8	5.40	10.18	10.80	2.44	23.43	14.72	38.16
Tractor( 90-119hp)RB	2WD 105	59,900	600	8	5.40	10.18	10.80	1.87	22.86	11.26	34.12
Tractor( 90-119hp)RB	MFWD 105	60,300	600	8	5.40	10.18	10.80	1.88	22.87	11.33	34.21
Tractor(120-139hp)CB	2WD 130	96,300	600	8	6.69	10.18	13.38	3.00	26.57	18.10	44.68
Tractor(120-139hp)CB	MFWD 130	116,000	600	8	6.69	10.18	13.38	3.62	27.18	21.81	49.00
Tractor(140-159hp)CB	2WD 150	108,000	600	8	7.72	10.18	15.44	3.37	28.99	20.30	49.30
Tractor(140-159hp)CB	MFWD 150	149,000	600	8	7.72	10.18	15.44	4.65	30.27	28.02	58.29
Tractor(160-179hp)CB	2WD 170	156,000	600	8	8.75	10.18	17.50	4.87	32.55	30.69	63.25
Tractor(160-179hp)CB	MFWD 170	166,000	600	8	8.75	10.18	17.50	5.18	32.86	32.66	65.53
Tractor(160-199hp)CB	Track 180	142,710	600	8	9.26	10.18	18.53	4.45	33.16	28.08	61.25
Tractor(180-199hp)CB	2WD 190	143,000	600	8	9.77	10.18	19.55	4.46	34.20	28.13	62.34
Tractor(180-199hp)CB	MFWD 190	180,000	600	8	9.77	10.18	19.55	5.62	35.36	35.42	70.78
Tractor(200-249hp)CB	4WD 225	147,066	600	8	11.58	10.18	23.16	4.59	37.93	28.93	66.87
Tractor(200-249hp)CB	MFWD 225	228,000	600	8	11.58	10.18	23.16	7.12	40.46	44.86	85.33
Tractor(200-249hp)CB	Track 225	277,000	600	8	11.58	10.18	23.16	8.65	41.99	54.50	96.50
Tractor(250-349hp)CB	4WD 300	282,000	600	8	15.44	10.18	30.88	8.81	49.87	55.49	105.36
Tractor(250-349hp)CB	Track 300	289,000	600	8	15.44	10.18	30.88	9.03	50.09	56.86	106.96
Tractor(350-449hp)CB	4WD 400	341,000	600	8	20.58	10.18	41.17	10.65	62.01	67.10	129.11
Tractor(350-449hp)CB	Track 400	364,000	600	8	20.58	10.18	41.17	11.37	62.73	71.62	134.36
Tractor(450-uphp)CB	TRACK-475	279,879	600	8	24.44	10.18	48.89	8.74	67.82	55.07	122.89

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 2016.

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/acre	-----\$/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	2.68	0.45	0.43	3.56	2.06	5.63
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	11.67	8.39	11.76	31.83	46.42	78.26
Cotton Picker-1st-BB	4R2X1260hp	357,000	200	8	13.33	0.172	3.87	4.59	9.61	18.07	37.92	56.00
Cotton Picker-1st-BB	4R30"250hp	262,000	200	8	12.86	0.327	7.35	8.42	13.40	29.18	52.88	82.06
Cotton Picker-1st-BB	4R30"325hp	350,000	200	8	18.01	0.327	7.35	11.79	17.90	37.04	70.64	107.69
Cotton Picker-1st-BB	4R38"255hp	268,000	200	8	13.12	0.257	5.78	6.76	10.79	23.35	42.59	65.94
Cotton Picker-1st-BB	4R38"325hp	351,000	200	8	18.01	0.257	5.78	9.28	14.13	29.21	55.78	84.99
Cotton Picker-1st-BB	5R30"255hp	285,000	200	8	12.86	0.261	5.88	6.73	11.66	24.28	46.01	70.29
Cotton Picker-1st-BB	5R38"250hp	284,601	200	8	12.86	0.207	4.65	5.33	9.21	19.20	36.35	55.55
Cotton Picker-1st-BB	6R30"325hp	465,000	200	8	18.27	0.218	4.90	7.97	15.85	28.73	62.56	91.30
Cotton Picker-1st-BB	6R38"330hp	465,000	200	8	18.27	0.172	3.87	6.29	12.51	22.68	49.39	72.08
Cotton Picker-1st-Tr	2R38"157hp	144,912	200	8	8.08	0.519	11.67	8.39	11.76	31.83	46.42	78.26
Cotton Picker-1st-Tr	4R2X1255hp	357,000	200	8	18.01	0.172	3.87	6.20	9.61	19.69	37.92	57.61
Cotton Picker-1st-Tr	4R30"250hp	261,825	200	8	12.86	0.327	7.35	8.42	13.39	29.17	52.84	82.01
Cotton Picker-1st-Tr	4R30"325hp	311,088	200	8	16.72	0.327	7.35	10.95	15.91	34.21	62.78	97.00
Cotton Picker-1st-Tr	4R38"255hp	268,000	200	8	13.12	0.257	5.78	6.76	10.79	23.35	42.59	65.94
Cotton Picker-1st-Tr	4R38"325hp	351,000	200	8	18.01	0.257	5.78	9.28	14.13	29.21	55.78	84.99
Cotton Picker-1st-Tr	5R30"255hp	285,303	200	8	13.12	0.261	5.88	6.87	11.67	24.43	46.06	70.49
Cotton Picker-1st-Tr	5R38"250hp	290,471	200	8	12.86	0.207	4.65	5.33	9.40	19.39	37.10	56.49
Cotton Picker-1st-Tr	6R30"325hp	465,000	200	8	16.72	0.218	4.90	7.30	15.85	28.06	62.56	90.63
Cotton Picker-1st-Tr	6R38"330hp	465,000	200	8	18.01	0.172	3.87	6.20	12.51	22.59	49.39	71.99
Cotton Picker-2nd-BB	2R38"157hp	144,912	200	8	8.08	0.440	9.88	7.11	9.96	26.96	39.32	66.29
Cotton Picker-2nd-BB	4R2x1260hp	357,000	200	8	18.01	0.145	3.27	5.25	8.14	16.67	32.12	48.80
Cotton Picker-2nd-BB	4R30"255hp	261,825	200	8	12.86	0.277	6.22	7.13	11.34	24.71	44.76	69.47
Cotton Picker-2nd-BB	4R30"325hp	311,088	200	8	16.72	0.277	6.22	9.27	13.47	28.98	53.18	82.17
Cotton Picker-2nd-BB	4R38"255hp	268,000	200	8	13.12	0.218	4.90	5.73	9.14	19.77	36.07	55.85
Cotton Picker-2nd-BB	4R38"325hp	351,000	200	8	18.01	0.218	4.90	7.86	11.97	24.74	47.25	71.99
Cotton Picker-2nd-BB	5R30"255hp	285,303	200	8	13.12	0.221	4.98	5.82	9.88	20.69	39.02	59.71
Cotton Picker-2nd-BB	5R38"250hp	284,601	200	8	12.86	0.175	3.94	4.51	7.80	16.26	30.79	47.05
Cotton Picker-2nd-BB	6R30"325hp	465,000	200	8	18.01	0.184	4.15	6.65	13.43	24.24	52.99	77.24
Cotton Picker-2nd-BB	6R38"330hp	465,000	200	8	18.01	0.145	3.27	5.25	10.60	19.13	41.84	60.98
Cotton Picker-2nd-Tr	2R38"157hp	144,912	200	8	8.08	0.440	9.88	7.11	9.96	26.96	39.32	66.29
Cotton Picker-2nd-Tr	4R2X1260hp	357,000	200	8	18.01	0.145	3.27	5.25	8.14	16.67	32.12	48.80
Cotton Picker-2nd-Tr	4R30"250hp	261,825	200	8	12.86	0.277	6.22	7.13	11.34	24.71	44.76	69.47
Cotton Picker-2nd-Tr	4R30"325hp	311,088	200	8	16.72	0.277	6.22	9.27	13.47	28.98	53.18	82.17
Cotton Picker-2nd-Tr	4R38"255hp	268,000	200	8	13.12	0.218	4.90	5.73	9.14	19.77	36.07	55.85
Cotton Picker-2nd-Tr	4R38"325hp	351,000	200	8	18.01	0.218	4.90	7.86	11.97	24.74	47.25	71.99
Cotton Picker-2nd-Tr	5R30"255hp	285,303	200	8	13.12	0.221	4.98	5.82	9.88	20.69	39.02	59.71
Cotton Picker-2nd-Tr	5R38"250hp	290,471	200	8	12.86	0.175	3.94	4.51	7.96	16.42	31.43	47.85
Cotton Picker-2nd-Tr	6R30"325hp	465,000	200	8	16.72	0.184	4.15	6.18	13.43	23.76	52.99	76.76
Cotton Picker-2nd-Tr	6R38"330hp	465,000	200	8	18.01	0.145	3.27	5.25	10.60	19.13	41.84	60.98
LA Pickup Truck	1/2 ton	25,000	800	5	2.50	1.000	10.18	5.62	2.81	18.61	6.65	25.26
LA Rice Combine	25 ft	165,000	300	10	8.60	0.300	5.05	5.16	13.21	23.43	20.07	43.50
LA Rice Combine-2	25 ft	165,000	300	10	8.60	0.300	5.05	5.16	13.21	23.43	20.07	43.50
LARice Combine Med	20 ft	150,000	300	10	7.10	0.210	3.53	2.98	8.40	14.92	12.76	27.69
Levee Sprayer	27'	30,768	350	8	2.57	0.038	0.68	0.19	0.06	0.94	0.41	1.36
Sprayer( 300-450Gal)	47'	0	350	8	5.40	0.022	0.40	0.24	0.00	0.64	0.00	0.64
Sprayer( 300-450Gal)	60'	103,000	350	8	5.66	0.017	0.31	0.19	0.09	0.61	0.63	1.25
Sprayer( 300-450Gal)	80'	103,000	350	8	5.66	0.013	0.23	0.14	0.07	0.45	0.47	0.93
Sprayer( 600-750Gal)	60'	174,000	350	8	10.29	0.017	0.31	0.36	0.16	0.84	1.08	1.92
Sprayer( 600-825Gal)	80'	180,000	350	8	10.29	0.013	0.23	0.27	0.12	0.63	0.83	1.47
Sprayer( 600-825Gal)	90'	255,000	350	8	10.29	0.011	0.21	0.24	0.16	0.61	1.05	1.66
Sprayer(1000-1400Gal)	90'	297,000	350	8	14.15	0.014	0.25	0.39	0.22	0.87	1.47	2.35
Sprayer(1200PlusGal)	120'	336,000	350	8	15.44	0.008	0.15	0.27	0.15	0.58	1.04	1.63









