

# **Projected Costs and Returns Crop Enterprise Budgets for Sorghum Production in Louisiana, 2017**

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



**Farm Management Research & Extension  
Department of Agricultural Economics & Agribusiness  
Louisiana State University Agricultural Center  
A.E.A. Information Series No. 321 - January 2017**

January 2017

A.E.A. Information Series No. 321

**PROJECTED COSTS AND RETURNS  
CROP ENTERPRISE BUDGETS  
FOR SORGHUM PRODUCTION IN LOUISIANA, 2017**

by

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



**Department of Agricultural Economics & Agribusiness  
Louisiana State University Agricultural Center  
[www.lsuagcenter.com](http://www.lsuagcenter.com)**

## TABLE OF CONTENTS

	<u>PAGE</u>
Introduction .....	1
Procedure .....	1
Expected Crop Yields and Market Prices .....	2
Direct Production Costs .....	2
Farm Machinery Costs .....	3
Overhead Costs .....	3
Acknowledgements.....	3
Internet Access .....	3
 <b><u>SORGHUM ENTERPRISE BUDGETS:</u></b>	
<u>Table</u>	
1 Sorghum, 8-row equipment 38 inch rows, non-irrigated, Northeast Louisiana, 2017 .....	4
2 Sorghum, drill planted, conventional tillage, non-irrigated, Southwest Louisiana, 2017 .....	7
Appendices .....	8
<u>App. Table</u>	
1 Operating inputs, estimated prices, Louisiana, 2017 .....	10
2 Tractors, performance rates and costs, Louisiana, 2017 .....	17
3 Self-propelled machines, performance rates and costs, Louisiana, 2017 .....	18
4 Implements, performance rates and costs, Louisiana, 2017 .....	19

# PROJECTED COSTS AND RETURNS CROP ENTERPRISE BUDGETS FOR SORGHUM PRODUCTION IN LOUISIANA, 2017

by

Michael A. Deliberto, Brian M. Hilbun, and Michael E. Salassi<sup>1</sup>

<sup>1</sup> Assistant Professor-Research, Research Associate, and Department Head and Professor  
Department of Agricultural Economics and Agribusiness, LSU Agricultural Center, Baton Rouge, LA.

## Introduction

This publication presents estimates of projected costs and returns for grain sorghum production in Louisiana for the 2017 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 2017 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 2017 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 \$10.69 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 4.75% per year. Operating capital was assumed to be borrowed in a manner consistent with timely acquisition of inputs. Fuel price for diesel was \$1.85 per gallon. Variable costs for tractors, self-propelled

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

The intermediate term interest rate was charged at an historical real rate of 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. A single general farm overhead charge is included in each crop enterprise budget included in this report. This single overhead charge is based on production cost data published by the Economic Research Service, USDA for major crops produced in this region of the United States.

### **Acknowledgments**

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

### **Internet Access**

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

Table 1.A Estimated costs per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2017.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 5 gal)	appl	6.50	1.5000	9.75	_____
App by Air ( 3 gal)	appl	5.00	2.0000	10.00	_____
FERTILIZERS					
LA Nitrogen	lb	0.32	110.0000	35.20	_____
LA Phosphate	lb	0.49	40.0000	19.60	_____
LA Potash	lb	0.26	40.0000	10.40	_____
FUNGICIDES					
Quadris	oz	2.66	6.0000	15.96	_____
HERBICIDES					
Roundup WeatherMax	oz	0.08	55.0000	4.40	_____
2,4-D Amine 4	pt	1.88	2.0000	3.76	_____
Atrazine 4L	pt	1.50	4.0000	6.00	_____
Dual II Magnum	pt	13.50	1.0000	13.50	_____
INSECTICIDES					
Karate Z	oz	3.40	2.1300	7.24	_____
Belt	oz	6.13	2.5000	15.33	_____
Transform	oz	7.81	1.0000	7.81	_____
Sivanto	oz	5.00	4.0000	20.00	_____
SEED/PLANTS					
Sorghum Concept	lb	3.21	6.0000	19.26	_____
CUSTOM FERT/LIME					
Lime (Spread)	ton	46.00	0.3300	15.18	_____
CUSTOM HARVEST/HAUL					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
OPERATOR LABOR					
Harvesters	hour	13.40	0.0851	1.14	_____
LA Hired Labor					
Implements	hour	10.69	0.1190	1.27	_____
Tractors	hour	10.69	0.4011	4.28	_____
DIESEL FUEL					
Tractors	gal	1.85	3.4993	6.48	_____
Harvesters	gal	1.85	1.2047	2.23	_____
REPAIR & MAINTENANCE					
Implements	Acre	5.10	1.0000	5.10	_____
Tractors	Acre	2.02	1.0000	2.02	_____
Harvesters	Acre	2.79	1.0000	2.79	_____
INTEREST ON OP. CAP.	Acre	6.44	1.0000	6.44	_____
TOTAL DIRECT EXPENSES				270.14	_____
FIXED EXPENSES					
Implements	Acre	7.01	1.0000	7.01	_____
Tractors	Acre	12.55	1.0000	12.55	_____
Harvesters	Acre	11.02	1.0000	11.02	_____
TOTAL FIXED EXPENSES				30.58	_____
TOTAL SPECIFIED EXPENSES				300.72	_____

Table 1.B Estimated resource use and costs for field operations, per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2017.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
Lime (Spread)	ton			0.33	Oct							0.3300	46.00	15.18	15.18
Disk Bed (Hipper)Rdg	8R-38	MFWD 190	0.074	1.00	Oct	1.76	2.63	0.35	0.92	0.07	0.79				6.45
Roller	32'	MFWD 170	0.046	1.00	Oct	1.00	1.52	0.14	0.77	0.04	0.50				3.93
Ditcher		2WD 130	0.020	1.00	Oct	0.31	0.36	0.04	0.05	0.02	0.21				0.97
App by Air ( 5 gal)	appl			1.00	Mar							1.0000	6.50	6.50	6.50
Roundup WeatherMax	oz											22.0000	0.08	1.76	1.76
2,4-D Amine 4	pt											2.0000	1.88	3.76	3.76
Ditcher		2WD 130	0.020	1.00	Apr	0.31	0.36	0.04	0.05	0.02	0.21				0.97
Plant & Pre Rigid	8R-38	MFWD 170	0.080	1.00	Apr	1.72	2.62	1.13	2.17	0.16	1.72				9.36
Sorghum Concept	lb											6.0000	3.21	19.26	19.26
Fert Appl (Liquid)	8R-38	MFWD 190	0.077	1.00	Apr	1.84	2.75	0.77	0.87	0.11	1.24				7.47
LA Nitrogen	lb											110.0000	0.32	35.20	35.20
LA Phosphate	lb											40.0000	0.49	19.60	19.60
LA Potash	lb											40.0000	0.26	10.40	10.40
Atrazine 4L	pt			1.00	Apr							4.0000	1.50	6.00	6.00
Roundup WeatherMax	oz											22.0000	0.08	1.76	1.76
Dual II Magnum	pt											1.0000	13.50	13.50	13.50
App by Air ( 3 gal)	appl			1.00	Jun							1.0000	5.00	5.00	5.00
Karate Z	oz											2.1300	3.40	7.24	7.24
Quadris	oz											6.0000	2.66	15.96	15.96
App by Air ( 3 gal)	appl			1.00	Jul							1.0000	5.00	5.00	5.00
Belt	oz											2.5000	6.13	15.33	15.33
Transform	oz											1.0000	7.81	7.81	7.81
Sivanto	oz											4.0000	5.00	20.00	20.00
App by Air ( 5 gal)	appl			0.50	Aug							0.5000	6.50	3.25	3.25
Roundup WeatherMax	oz											11.0000	0.08	0.88	0.88
Header Wheat/Sorghum	30' Rigid	275hp	0.085	1.00	Aug	5.02	11.02	0.66	0.99	0.08	1.14				18.83
Haul Sorghum	bu			1.00	Aug							100.0000	0.25	25.00	25.00
Stalk Shredder-Flail	20'	MFWD 150	0.082	1.00	Sep	1.56	2.31	1.97	1.19	0.08	0.88				7.91
TOTALS						13.52	23.57	5.10	7.01	0.60	6.69			238.39	294.28
INTEREST ON OPERATING CAPITAL															6.44
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															300.72



Table 1.C Breakeven price above direct expenses and net returns for price/yield combinations, per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2017.

			-----BREAKEVEN PRICE-----										
Grain Sorghum			1.88	2.00	2.13	2.29	2.47	2.70	2.97	3.31	3.75	4.33	5.14
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu	-163	-157	-150	-142	-133	-122	-108	-91	-69	-40	0
			-193	-187	-181	-173	-164	-152	-139	-122	-100	-71	-30
60	60.00	bu	-146	-139	-131	-122	-111	-97	-81	-61	-34	0	48
			-177	-170	-162	-152	-141	-128	-112	-91	-65	-30	18
70	70.00	bu	-130	-122	-112	-101	-88	-73	-54	-30	0	40	97
			-161	-152	-143	-132	-119	-104	-84	-61	-30	10	67
80	80.00	bu	-114	-104	-94	-81	-66	-48	-27	0	34	81	146
			-144	-135	-124	-112	-97	-79	-57	-30	4	51	116
90	90.00	bu	-97	-87	-75	-61	-44	-24	0	30	69	122	195
			-128	-117	-105	-91	-75	-55	-30	0	39	91	165
100	100.00	bu	-81	-69	-56	-40	-22	0	27	61	104	163	244
			-112	-100	-87	-71	-52	-30	-3	30	74	132	214
110	110.00	bu	-65	-52	-37	-20	0	24	54	91	139	203	293
			-95	-83	-68	-50	-30	-6	23	61	109	173	263
120	120.00	bu	-48	-34	-18	0	22	48	81	122	174	244	342
			-79	-65	-49	-30	-8	18	51	91	144	214	312
130	130.00	bu	-32	-17	0	20	44	73	108	152	209	285	391
			-63	-48	-30	-10	13	42	78	122	179	254	361
140	140.00	bu	-16	0	18	40	66	97	135	183	244	326	440
			-46	-30	-11	10	36	67	105	152	214	295	409
150	150.00	bu	0	17	37	61	88	122	163	214	279	367	489
			-30	-13	7	30	58	91	132	183	249	336	458

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

Table 1.D Breakeven price above total expenses and net returns for price/yield combinations, per Acre  
 Grain Sorghum, 8-row equipment, 38 inch rows, non-irrigated,  
 Northeast Louisiana, 2017.

			-----BREAKEVEN PRICE-----										
Grain Sorghum			2.08	2.22	2.37	2.54	2.75	3.00	3.31	3.69	4.18	4.84	5.76
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu	-152	-146	-138	-130	-119	-107	-91	-72	-48	-15	30
			-183	-176	-169	-160	-150	-137	-122	-103	-78	-45	0
60	60.00	bu	-134	-126	-117	-107	-94	-79	-61	-38	-8	30	85
			-165	-157	-148	-137	-125	-110	-91	-68	-39	0	55
70	70.00	bu	-116	-107	-96	-84	-69	-52	-30	-3	30	76	140
			-146	-137	-127	-114	-100	-82	-61	-34	0	45	110
80	80.00	bu	-97	-87	-75	-61	-44	-24	-0	30	69	122	195
			-128	-117	-105	-91	-75	-55	-30	0	39	91	165
90	90.00	bu	-79	-67	-54	-38	-19	3	30	64	109	168	250
			-110	-98	-84	-68	-50	-27	0	34	78	137	220
100	100.00	bu	-61	-48	-32	-15	5	30	61	99	148	214	305
			-91	-78	-63	-45	-25	0	30	68	117	183	275
110	110.00	bu	-42	-28	-11	7	30	58	91	133	187	260	360
			-73	-58	-42	-22	0	27	61	103	157	229	330
120	120.00	bu	-24	-8	9	30	55	85	122	168	227	305	416
			-55	-39	-21	0	25	55	91	137	196	275	385
130	130.00	bu	-6	10	30	53	80	113	152	202	266	351	471
			-36	-19	0	22	50	82	122	172	235	321	440
140	140.00	bu	12	30	51	76	105	140	183	237	305	397	526
			-18	0	21	45	75	110	152	206	275	367	495
150	150.00	bu	30	50	72	99	130	168	214	271	345	443	581
			0	19	42	68	100	137	183	240	314	412	550

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

Table 2.A Estimated costs per Acre  
 Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
 Southwest Louisiana, 2017.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
CUSTOM SPRAY					
App by Air ( 3 gal)	appl	5.00	1.0000	5.00	_____
LA Rice 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	0.32	104.0000	33.28	_____
LA Phosphate	lb	0.49	48.0000	23.52	_____
LA Potash	lb	0.26	48.0000	12.48	_____
FUNGICIDES					
Quadris	oz	2.34	6.0000	14.04	_____
HERBICIDES					
Londax 60DF	oz	20.27	2.4000	48.65	_____
INSECTICIDES					
Belt	oz	6.13	2.5000	15.33	_____
Sivanto	oz	5.00	4.0000	20.00	_____
Transform	oz	7.81	1.0000	7.81	_____
SEED/PLANTS					
Sorghum Concept	lb	3.21	9.0000	28.89	_____
CUSTOM FERT/LIME					
Custom Spread(Truc	appl	4.50	1.0000	4.50	_____
CUSTOM HARVEST/HAUL					
Haul Sorghum	bu	0.25	100.0000	25.00	_____
HAND LABOR					
Implements	hour	9.06	0.0942	0.85	_____
LA OPERATOR LABOR					
Self-Propelled	hour	15.30	0.2310	3.54	_____
LA Hired Labor					
Tractors	hour	10.69	0.3812	4.07	_____
DIESEL FUEL					
Tractors	gal	1.85	3.7828	7.00	_____
Self-Propelled	gal	1.85	1.4915	2.76	_____
REPAIR & MAINTENANCE					
Implements	acre	3.97	1.0000	3.97	_____
Tractors	acre	2.27	1.0000	2.27	_____
Self-Propelled	acre	8.40	1.0000	8.40	_____
INTEREST ON OP. CAP.	acre	4.18	1.0000	4.18	_____
				-----	
TOTAL DIRECT EXPENSES				282.74	_____
FIXED EXPENSES					
Implements	acre	8.89	1.0000	8.89	_____
Tractors	acre	14.31	1.0000	14.31	_____
Self-Propelled	acre	12.77	1.0000	12.77	_____
				-----	
TOTAL FIXED EXPENSES				35.97	_____
				-----	
TOTAL SPECIFIED EXPENSES				318.71	_____

Table 2.B Estimated resource use and costs for field operations, per Acre  
 Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
 Southwest Louisiana, 2017.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----dollars-----				dollars		-----dollars-----				
Disk Harrow	28'	MFWD 225	0.070	1.00	Feb	2.00	3.15	0.97	2.05	0.07	0.75					8.92
Disk Harrow	28'	MFWD 225	0.070	1.00	Mar	2.00	3.15	0.97	2.05	0.07	0.75					8.92
Ditcher		MFWD 130	0.020	1.00	Mar	0.32	0.44	0.04	0.05	0.02	0.21					1.06
LA Boom Sprayer	30 ft	MFWD 170	0.059	1.00	Apr	1.28	1.96	0.13	0.15	0.05	0.64					4.16
Londax 60DF	oz											2.4000	20.27	48.65		48.65
Custom Spread(Truc	appl			1.00	Apr							1.0000	4.50	4.50		4.50
LA Nitrogen	lb											104.0000	0.32	33.28		33.28
LA Phosphate	lb											48.0000	0.49	23.52		23.52
LA Potash	lb											48.0000	0.26	12.48		12.48
Field Cultivate	32'	MFWD 225	0.046	1.00	Apr	1.33	2.09	0.46	1.93	0.04	0.50					6.31
Grain Drill	20'	MFWD 170	0.094	1.00	Apr	2.02	3.08	1.36	2.61	0.18	1.86					10.93
Sorghum Concept	lb											9.0000	3.21	28.89		28.89
Ditcher		MFWD 130	0.020	1.00	Apr	0.32	0.44	0.04	0.05	0.02	0.21					1.06
App by Air ( 3 gal)	appl			1.00	Jun							1.0000	5.00	5.00		5.00
Quadris	oz											6.0000	2.34	14.04		14.04
LARice GPS Charge-SW acre												1.0000	0.35	0.35		0.35
App by Air ( 5 gal)	appl			1.00	Jul							1.0000	6.50	6.50		6.50
Belt	oz											2.5000	6.13	15.33		15.33
LARice GPS Charge-SW acre												1.0000	0.35	0.35		0.35
Sivanto	oz											4.0000	5.00	20.00		20.00
Transform	oz											1.0000	7.81	7.81		7.81
LARice Combine Med	20 ft		0.210	1.00	Aug	11.16	12.77			0.23	3.54					27.47
Haul Sorghum	bu			1.00	Aug							100.0000	0.25	25.00		25.00
TOTALS						20.43	27.08	3.97	8.89	0.70	8.46			245.70		314.53
INTEREST ON OPERATING CAPITAL																4.18
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																318.71

Table 2.C Breakeven price above direct expenses and net returns for price/yield combinations, per Acre  
Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
Southwest Louisiana, 2017.

LA Sorghum			-----BREAKEVEN PRICE-----										
			1.96	2.09	2.23	2.39	2.59	2.82	3.11	3.47	3.93	4.54	5.40
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu.	-171	-165	-158	-150	-140	-128	-114	-96	-73	-42	0
			-207	-201	-194	-186	-176	-164	-150	-132	-109	-78	-35
60	60.00	bu.	-154	-147	-138	-128	-117	-103	-85	-64	-36	0	51
			-190	-183	-174	-164	-153	-139	-121	-100	-72	-35	15
70	70.00	bu.	-137	-128	-118	-107	-93	-77	-57	-32	0	42	103
			-173	-164	-154	-143	-129	-113	-93	-68	-35	6	67
80	80.00	bu.	-120	-110	-99	-85	-70	-51	-28	0	36	85	154
			-156	-146	-135	-121	-106	-87	-64	-35	0	49	118
90	90.00	bu.	-103	-92	-79	-64	-46	-25	0	32	73	128	206
			-139	-127	-115	-100	-82	-61	-35	-3	37	92	170
100	100.00	bu.	-85	-73	-59	-42	-23	0	28	64	110	171	257
			-121	-109	-95	-78	-59	-35	-7	28	74	135	221
110	110.00	bu.	-68	-55	-39	-21	0	25	57	96	147	214	309
			-104	-91	-75	-57	-35	-10	21	60	111	178	273
120	120.00	bu.	-51	-36	-19	0	23	51	85	128	184	257	360
			-87	-72	-55	-35	-12	15	49	92	148	221	324
130	130.00	bu.	-34	-18	0	21	46	77	114	161	220	300	412
			-70	-54	-35	-14	10	41	78	125	184	264	376
140	140.00	bu.	-17	0	19	42	70	103	143	193	257	343	463
			-53	-35	-16	6	34	67	107	157	221	307	427
150	150.00	bu.	0	18	39	64	93	128	171	225	294	386	515
			-35	-17	3	28	57	92	135	189	258	350	479

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

Table 2.D Breakeven price above total expenses and net returns for price/yield combinations, per Acre  
Grain Sorghum, drill planted, conventional tillage, non-irrigated,  
Southwest Louisiana, 2017.

LA Sorghum			-----BREAKEVEN PRICE-----										
			2.20	2.34	2.50	2.69	2.92	3.18	3.51	3.92	4.44	5.14	6.12
PERCENT	YIELD	UNIT	-----dollars-----										
50	50.00	bu.	-159	-152	-144	-135	-124	-110	-94	-74	-47	-12	35
			-195	-188	-180	-171	-160	-146	-130	-110	-83	-48	0
60	60.00	bu.	-140	-131	-122	-110	-97	-81	-61	-37	-5	35	94
			-176	-167	-158	-146	-133	-117	-97	-73	-41	0	58
70	70.00	bu.	-120	-110	-99	-86	-70	-52	-29	-0	35	84	153
			-156	-146	-135	-122	-106	-88	-65	-36	0	48	117
80	80.00	bu.	-101	-89	-76	-61	-44	-22	3	35	77	133	212
			-137	-125	-112	-97	-80	-58	-32	0	41	97	176
90	90.00	bu.	-81	-68	-54	-37	-17	6	35	72	119	182	270
			-117	-104	-90	-73	-53	-29	0	36	83	146	234
100	100.00	bu.	-61	-47	-31	-12	9	35	68	109	161	231	329
			-97	-83	-67	-48	-26	0	32	73	125	195	293
110	110.00	bu.	-42	-26	-9	11	35	65	101	146	203	280	388
			-78	-62	-45	-24	0	29	65	110	167	244	352
120	120.00	bu.	-22	-5	13	35	62	94	133	182	245	329	447
			-58	-41	-22	0	26	58	97	146	209	293	411
130	130.00	bu.	-3	14	35	60	89	124	166	219	287	378	505
			-39	-20	0	24	53	88	130	183	251	342	469
140	140.00	bu.	16	35	58	84	116	153	199	256	329	427	564
			-19	0	22	48	80	117	163	220	293	391	528
150	150.00	bu.	35	56	81	109	142	182	231	292	371	476	623
			0	20	45	73	106	146	195	256	335	440	587

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 2017.

ITEM NAME	UNIT	PRICE
CUSTOM FERT/LIME		
App Fert by Air(Min)	appl	7.00
Custom Apply Fert	acre	7.00
Custom Spread(Truc	appl	4.50
Lime (Spread)	ton	46.00
CUSTOM HARVEST/HAUL		
Custom Combine Rice	acre	0.00
Haul Corn	bu	0.23
Haul Cotton	lb	0.02
Haul Rice	bu	0.35
Haul Rice (cwt)	cwt	0.25
Haul Sorghum	bu	0.25
Haul Soybeans	bu	0.27
Haul Wheat	bu	0.26
LARice Haul	cwt	0.30
CUSTOM PLANT		
Custom Spread + Seed	appl	0.00
LARice Air Plant NE	cwt	5.50
LARice Air Plant SW	cwt	5.60
Plant by Air	cwt	7.00
CUSTOM SPRAY		
App 2,4-D Helicopter	appl	0.00
App by Air ( 1 gal)	appl	2.50
App by Air ( 2 gal)	appl	4.00
App by Air ( 3 gal)	appl	5.00
App by Air ( 5 gal)	appl	6.50
App by Air (10 gal)	appl	8.50
App Furadan by Air	appl	0.00
App Ordram by Air	appl	0.00
Custom Apply	acre	7.00
Custom Terragator	acre	5.00
LARice GPS Charge-SW	acre	0.35
LARice GPS Charge_NE	acre	0.25
Spray Levees, 4whlr	acre	0.00
FERTILIZERS		
Amm Nitrate (34% N)	cwt	22.50
Amm Sulfate (21% N)	cwt	17.23
Anhy Ammonia (82% N)	cwt	28.00
Boron (Solubor)	lb	0.75
Crop Oil ( Seed Oil)	pt	4.60
DAP	cwt	24.82
Fert 0-20-20	cwt	0.00
Fert 10-10-10	cwt	0.00
Fert 10-34-0	cwt	28.58
Fert 10-34-0	gal	0.00
Fert 13-13-13	cwt	0.00
Fert 41-0-0-4	cwt	16.85
Fert 5-20-20	cwt	0.00
LA Nitrogen	lb	0.32
LA Phosphate	lb	0.49
LA Potash	lb	0.26
Phosphorus(46% P2O5)	cwt	21.88
Potash (60% K2O)	cwt	16.97
Sulfur	lb	0.34
UAN (32% N)	cwt	14.31
UAN + Sulfur (28% N)	cwt	14.48
Urea, Solid (46% N)	cwt	16.78
Zinc	lb	0.50
FUNGICIDES		
Apron Maxx RTA	oz	0.93
Apron XL	oz	6.98
Apron XL LS	oz	5.27
Benlate 50 WP	lb	15.95
Captan 4L	pt	2.83
Captan 50 WP	lb	5.41
Crop Oil (Petroleum)	pt	3.86
Cruiser 5FS	oz	17.38
Delta Coat AD	oz	3.75
Dithane F-45	qt	9.08
Dithane Rainsheild	lb	4.15
Fungicide	lb	2.82

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2017.

ITEM NAME	UNIT	PRICE
FUNGICIDES CONT'D		
Gem 25 WG	oz	3.70
Manzate 75 DF	lb	5.54
Manzate Flowable	pt	4.60
Moncut 70 DF	lb	38.35
Orbit	oz	2.75
Prevail	lb	28.50
Quadris	oz	2.66
Ridomil GoldPC 10G	lb	2.08
Ridomil Gold PC	lb	5.30
Ridomil Gold PC Liq	oz	6.54
Rovral 4F	pt	16.97
Rovral WG	lb	0.00
Shelter	oz	8.50
Stiletto	oz	0.58
Stratego	pt	25.00
Terrachlor Flowable	pt	4.74
Terraclor 2EC	pt	1.87
Terraclor Super X EC	pt	3.95
Terraclor Super X G	lb	2.82
Tilt 3.6 EC	oz	0.85
Vitavax 200	oz	0.47
Vitavax M Flowable	oz	1.06
Vitavax RTU-Thiram	oz	0.40
Vitavax T-L	oz	0.29
GIN/DRY		
Dry Corn	bu	0.19
Dry Grain Sorghum	cwt	0.25
Dry Rice	bu	0.40
Dry Rice (cwt)	cwt	0.90
Gin	lb	0.11
LARice Dry	cwt	0.90
GROWTH REGULATORS		
Early Harvest PGR	oz	1.55
LA Polado	oz	0.14
Mepex	oz	0.13
PGR IV	oz	1.55
Pix Plus	oz	0.40
Pix Ultra	oz	0.39
HARVEST AIDS		
Accelerate	pt	2.59
Ammonium Sulfate	lb	0.24
Boll'd	pt	7.01
CottonQuik	pt	6.06
Def 6	pt	6.88
Def/Folex	pt	7.55
Dropp 50 WP	lb	45.45
Dropp SC	oz	1.09
Ethephon 6E	pt	3.38
Finish 6	pt	10.25
Folex 6EC	pt	9.32
Ginstar EC	pt	30.23
Gramoxone Extra	pt	4.86
Gramoxone Inteon	oz	0.26
Gramoxone Max	pt	4.06
Harvade 5F	oz	0.67
Leafless	pt	18.56
Prep	pt	2.75
Sodium Chlorate 3L	gal	3.50
Sodium Chlorate 6L	gal	5.57
Starfire	pt	0.00
HERBICIDES		
2,4-D Amine 4	pt	1.88
2,4-D Ester	pt	3.00
AAtrex 4L	pt	2.58
AAtrex NINE-O	lb	4.52
Accent Gold	oz	6.12
Accent SP	oz	36.25
Aim 2EC	oz	5.16
Aim DF	oz	9.65
App Fert by Air	cwt	7.00
Arrosolo	qt	7.88
Assure II	oz	0.84
Atrazine 4L	pt	1.50
Atrazine 90DF	lb	3.60

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2017.

ITEM NAME	UNIT	PRICE
HERBICIDES CONT'D		
Authority 75DF	lb	26.95
Axiom 68DF	lb	25.74
Backdraft	pt	2.40
Banvel	pt	15.02
Basagran	pt	15.81
Basis Gold	lb	9.00
Beacon 75% WSP	oz	34.87
Beyond	oz	4.97
Bicep II Magnum	qt	11.69
Bicep II zmsgnum	qt	10.97
Bladex 4L	qt	0.00
Bladex 90DF	lb	0.00
Blazer 2L	pt	0.00
Blazer Ultra	pt	9.79
Boa	pt	3.63
Bolero 8EC	pt	7.67
Boundary	pt	10.18
Buctril 4EC	pt	17.06
Butoxone 175(2,4-DB)	pt	3.24
Butoxone 200(2,4-DB)	pt	3.92
Butyrac 175 (2,4-DB)	pt	3.55
Butyrac 200 (2,4-DB)	pt	4.77
Canopy 75%	oz	2.70
Canopy XL	oz	2.23
Caparol 4L	pt	4.44
Caparol Accu-Pak	lb	0.00
Celebrity Plus	lb	84.50
Clarity	pt	11.18
Classic	oz	16.95
Clincher EC	oz	2.30
Cobra 2EC	oz	1.68
Command 3ME	pt	18.50
Command XTRA	pt	0.00
Conclude Ultra	pt	0.00
Conclude Ultra	pt	0.00
Conclude XACT	pt	11.32
Conclude XTRA	pt	8.32
Cornerstone	pt	2.50
Cotoran 4L	pt	6.31
Cotoran DF	lb	7.92
Cotton Pro Flowable	pt	3.98
Crossbow	pt	8.05
Cy-Pro 4L	qt	0.00
Cypro 90DF	lb	0.00
Delta Goal	pt	9.44
Denim 0.16 EC	pt	24.06
Detail	pt	7.99
Direx 4L	pt	3.29
Direx 80 DF	lb	6.20
Diuron 4L	pt	3.36
Diuron 80 DF	lb	5.81
Domain 60DF	lb	12.75
DSMA 4	pt	0.90
Dual 8E	pt	0.00
Dual II Magnum	pt	13.50
Dual Magnum	pt	14.97
Duet	pt	4.75
Evik DF 80W	lb	11.22
Exceed	oz	10.71
Exceed Custom Pak	oz	11.50
Expert	pt	4.95
Facet 75DF	lb	50.00
First Rate	oz	41.21
Flexstar HL	pt	4.50
FloMet 4L	pt	4.74
Freedom	qt	2.51
Front Row	oz	21.92
Frontier 6.0	oz	0.63
FulTime	pt	6.29
Fusilade DX	oz	1.13
Fusion	pt	29.86
Glyphos	pt	1.80
Glyphomax	pt	3.49
Glyphosate Plus 4L	pt	1.88

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2017.

ITEM NAME	UNIT	PRICE
HERBICIDES CONT'D		
Glystar Plus	pt	2.64
Goal 2XL	pt	10.80
Gramoxone Extra	pt	0.00
Gramoxone Max	pt	5.46
Gramoxone Max	pt	5.46
Grandstand R	qt	17.15
Guardsman	pt	4.66
Guardsman Max	pt	7.22
Harmony Extra	oz	12.02
Hoelon 3EC	pt	11.03
Karmex DF	lb	5.93
LA Asulox/Asulam	gal	38.80
LA Weedmaster	qt	6.15
Lariat	qt	7.58
Lasso 4EC	qt	6.60
Lasso II 15G	lb	0.00
Layby Pro	qt	12.60
Lexone 75DF	lb	18.90
Liberty	pt	8.84
Lightning	oz	14.25
Lightning	oz	14.25
Linex 4L	pt	11.23
Londax 60DF	oz	20.27
Lorox 50DF	lb	26.36
Matador	pt	0.00
MSMA 6.6	pt	3.66
MSMA6 + Surfactant	pt	2.63
Newpath 2SL	oz	3.63
Ordram 15-G	lb	1.34
Ordram 8-E	pt	9.42
Outlook	pt	19.31
Pendimax 3.3	pt	2.47
Permit 75DF	oz	18.50
Poast 1.53	pt	13.41
Poast Plus	pt	9.69
Propanil 4E	qt	5.15
Prowl 3.3 EC	pt	6.86
Pursuit DG	oz	11.59
Pursuit Plus EC	pt	7.10
Python WDG	oz	15.58
Raptor	oz	4.96
Reflex 2LC	pt	6.56
Regiment 80WP	oz	4.38
Remedy	pt	8.45
Resource .86EC	pt	29.40
Ricestar	pt	24.54
Roundup Original	pt	6.00
Roundup Original Max	oz	0.38
Roundup Power Max	pt	2.25
Roundup Ultra MAX	pt	5.97
Roundup Ultra Dry	lb	6.14
Roundup WeatherMax	oz	0.08
Scepter 70 DG	oz	5.06
Select 2EC	oz	0.78
Sencor 4F	pt	14.74
Sencor DF	lb	9.50
Squadron CE	pt	4.55
Stam 4E	qt	5.12
Stam 80 EDF	lb	10.85
Staple 85%	oz	16.01
Staple Plus	oz	8.55
Steadfast	oz	12.40
Steel	pt	10.28
Storm	pt	12.75
Strongarm	oz	62.62
Superwham	qt	9.78
Suprend	lb	13.49
Surpass 20G	lb	2.36
Surpass EC	qt	29.04
Touchdown	qt	9.32
Touchdown 4 IQ	pt	3.33
Touchdown Total	qt	8.38
Treflan HFP	pt	2.90
Treflan TR-10	lb	1.10



Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2017.

ITEM NAME	UNIT	PRICE
HERBICIDES CONT'D		
Tri-Scept	pt	5.24
Trifluralin 4EC	pt	4.01
Trilin 10G	lb	0.79
Trilin 4EC	pt	2.12
Typhoon	qt	13.06
Valor WP	oz	6.38
Whip 360	pt	25.08
Zorial Rapid 80DF	lb	14.10
INSECTICIDES		
Acephate 80SP	lb	0.00
Acephate 90SP	lb	8.69
Admire 2 Flowable	oz	4.78
Ammo 2.5 EC	oz	0.92
Asana .66 XL	oz	0.67
Aztec 2.1% G	lb	3.88
Baythroid 2	oz	2.30
Bidrin 8L	oz	0.90
Brigade EC	pt	3.50
Brigade WSB	lb	26.04
Capture 2EC	oz	2.40
Carbamate	oz	0.00
Centric 40WG	oz	5.21
Comite	pt	9.46
Condor XL	pt	0.00
Confirm 2F	oz	1.86
Counter 15G	lb	4.51
Counter CR	lb	2.65
Curacron 8E	pt	10.75
Decis 1.5EC	oz	2.84
Declare	pt	4.08
Denim 0.16EC	pt	32.63
Di-Syston 15G	lb	3.48
Di-Syston 8	pt	14.32
Diamond .83EC	pt	21.84
Dimethoate 4E	pt	5.88
Dimilin 2L	oz	2.12
Dipel DF	lb	14.47
Dipel ES	pt	5.50
Force 3G	lb	7.41
Furadan 3G	lb	0.00
Furadan 4F	pt	9.81
Fury 1.5 EC	oz	1.30
Gaucho 480	oz	5.80
Intrepid 2F	oz	1.80
Intruder 70WP	oz	10.99
Karate Z	oz	3.40
Lannate LV	pt	12.23
Lannate SP	oz	2.42
Larvin 3.2	oz	0.63
Leverage 2.7	oz	1.95
Lorsban 15G	lb	2.40
Lorsban 4E	pt	6.66
Malathion 57EC	pt	4.23
Malathion 8E	pt	5.33
Malathion ULV	pt	4.93
Mepichlor 4.2% Liq	pt	5.91
Methyl Parathion	pt	5.79
Monitor 4	pt	16.50
Monitor 4	pt	16.50
Mustang Max	oz	1.48
Organophosphate	oz	0.00
Orthene 90S	lb	5.75
Orthene 97	lb	10.90
Ovasyn	pt	0.00
Ovicide	oz	0.00
Penncap M	pt	6.71
Phaser 3E	qt	8.13
Pirate 3SC	oz	0.00
Pounce 25WP	lb	16.80
Pounce 3.2 EC	oz	0.91
Provado 1.6F	oz	1.94
Scout X-TRA	oz	0.00
Sevin 80S	lb	7.40
Sevin XLR Plus	qt	15.07

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2017.

ITEM NAME	UNIT	PRICE
<b>INSECTICIDES CONT'D</b>		
Spintor 2SC	oz	4.93
Steward	pt	39.51
Surfactant	pt	3.69
Synthetic Pyrethroid	oz	0.00
Temik 15G Grit	lb	4.00
Thimet 20-G	lb	3.65
Thionex 3EC	pt	4.17
Thionex 50W	lb	10.45
Tracer	oz	9.73
Trimax	oz	1.85
Vydate C-LV	oz	0.93
Warrior Z	oz	1.80
Warrior ZT	oz	1.88
<b>IRRIGATION SUPPLIES</b>		
Rice Gates	each	3.65
Roll-Out Pipe	ft	0.25
<b>OVERHEAD</b>		
Farmstead & Drainage	Dol	1.00
LRice Insurance	Dollar	1.00
LRice Misc. Overhd	dollar	1.00
LRice Property Tax	dollar	1.00
Shops Bldg & Equip.	Dol	6.55
<b>SERVICE FEE</b>		
Utilities	Dol	1.00
<b>SEED/PLANTS</b>		
Corn Seed Bt	thous	2.60
Corn Seed BtRR	thous	3.89
Corn Seed Conv.	thous	2.59
Corn Seed RR	thous	3.44
Corn Seed VT3	thous	3.52
Corn Seed VT3Pro	thous	3.52
Cotton Seed BG/RR	thous	0.62
Cotton Seed BGII/RRF	thous	0.61
Cotton Seed Bt	thous	0.28
Cotton Seed BtRR	thous	1.26
Cotton Seed Bxn	thous	0.00
Cotton Seed Conv.	thous	0.00
Cotton Seed Liberty	thous	1.05
Cotton Seed Liberty	thous	1.05
Cotton Seed RR	thous	0.63
Cotton Seed RR	thous	0.63
Cotton Seed WS	thous	0.49
Cotton Seed WS/RR	thous	0.00
Cotton Seed WS/RRF	thous	0.59
Rice Clearfield 161	lb	1.05
Rice Clearfield XL8	lb	6.12
Rice Seed (Levees)	lb	0.38
Rice Seed CF(Levees)	lb	1.65
Rice Seed Conv.	lb	0.38
Rice Seed Hybrid	lb	5.57
SC Cultured seedcane	acre	484.00
Sorghum Concept	lb	3.16
Sorghum Hybrid Sudax	lb	1.20
Sorghum NonConcept	lb	1.18
Soybean Seed LL	lb	1.16
Soybean Seed Private	lb	0.38
Soybean Seed Public	lb	0.00
Soybean Seed RR	lb	0.90
Soybean Seed Stack	lb	1.28
Wheat Seed Private	lb	0.25
Wheat Seed Public	lb	0.00
<b>SERVICE FEE</b>		
Cotton Checkoff	bale	2.56
Cotton Storage	bale	25.00
Crop Consultant	acre	7.00
Insect Scouting	acre	7.00
Rice Consultant	acre	8.00
SC Treating Charge	acre	0.00
Survey & Mark Levees	acre	4.50
Survey & Mark Levees	acre	4.50
<b>TECHNOLOGY FEE</b>		
BG Cot Tech Fee	thous	0.28
BG Cot Tech Fee	cap/ac	19.50
BG II Cot Tech Fee	thous	0.76

Appendix Table 1 Cont'd. Operating Inputs: Estimated Prices for 2017.

ITEM NAME	UNIT	PRICE
TECHNOLOGY FEE CONT'D		
BG II Cot Tech Fee	cap/ac	31.91
BG II/RR Tech Fee	thous	1.49
BG II/RR Tech Fee	cap/ac	62.69
BGII/RRF Cot Tech Fe	thous	1.49
BGII/RRF Cot Tech Fe	cap/ac	69.25
Eradication Fee	acre	6.00
Eradication Zone 1	acre	6.00
Eradication Zone 1A	acre	6.00
Eradication Zone 1B	acre	6.00
Eradication Zone 2	acre	6.00
Eradication Zone 3	acre	6.00
Eradication Zone 4	acre	6.00
RR Cotton Tech Fee	thous	1.04
RR Cotton Tech Fee	cap/ac	43.66
RR Cotton Tech Fee	thous	1.04
RR Cotton Tech Fee	cap/ac	43.66
RRF Cotton Tech Fee	thous	1.04
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 2017.

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	18.09	0.00	31.49	0.00	31.49
Combine (200-249 hp)	240hp	161,548	300	8	12.35	13.40	22.84	16.82	53.07	66.39	119.47
Combine (225-274 hp)	Track250hp	0	300	8	12.87	13.40	23.80	0.00	37.20	0.00	37.20
Combine (250-299 hp)	275hp	323,000	300	8	14.15	13.40	26.17	33.64	73.22	132.75	205.98
Combine (250-299hp)	Grass295hp	218,222	300	8	15.18	13.40	28.08	22.73	64.21	89.69	153.90
Combine (275-299 hp)	Track290hp	0	300	8	14.93	13.40	27.62	0.00	41.02	0.00	41.02
Combine (300-349 hp)	325hp	336,000	300	8	16.73	13.40	30.95	35.00	79.35	138.10	217.45
Combine (300-349hp)	Track320hp	0	300	8	16.47	13.40	30.46	0.00	43.86	0.00	43.86
Combine (350-379 hp)	370hp	344,000	300	8	19.04	13.40	35.22	35.83	84.45	141.39	225.84
Combine (350-379 hp)	Track365hp	0	300	8	18.79	13.40	34.76	0.00	48.16	0.00	48.16
Cotton Stripper	173hp	170,000	200	8	8.08	13.40	14.94	26.56	54.91	104.80	159.71
SC Tractor 93 MDR	93	46,683	600	10	4.79	10.69	8.86	2.72	22.27	7.84	30.12
SC Tractpr 68 MDR	68	27,049	600	10	3.50	10.69	6.47	1.57	18.74	4.54	23.29
test-mes		0	0	0	0.00	13.40	0.00	0.00	0.00	0.00	0.00
Tractor( 40-59hp)Cab	2WD 50	32,200	600	8	2.57	10.69	4.76	1.00	16.45	6.05	22.51
Tractor( 40-59hp)Cab	MFWD 50	39,100	600	8	2.57	10.69	4.76	1.22	16.67	7.35	24.02
Tractor( 40-59hp)RB	2WD 50	20,900	600	8	2.57	10.69	4.76	0.65	16.10	3.93	20.03
Tractor( 40-59hp)RB	MFWD 50	24,300	600	8	2.57	10.69	4.76	0.75	16.21	4.56	20.78
Tractor( 60-89hp)CAB	2WD 75	48,300	600	8	3.86	10.69	7.14	1.50	19.34	9.08	28.42
Tractor( 60-89hp)CAB	MFWD 75	54,100	600	8	3.86	10.69	7.14	1.69	19.52	10.17	29.69
Tractor( 60-89hp)RB	2WD 75	34,400	600	8	3.86	10.69	7.14	1.07	18.90	6.46	25.37
Tractor( 60-89hp)RB	MFWD 75	35,800	600	8	3.86	10.69	7.14	1.11	18.95	6.73	25.68
Tractor( 90-119hp)CB	2WD 105	65,300	600	8	5.40	10.69	9.99	2.04	22.72	12.28	35.00
Tractor( 90-119hp)CB	MFWD 105	77,400	600	8	5.40	10.69	9.99	2.41	23.10	14.55	37.66
Tractor( 90-119hp)RB	2WD 105	57,600	600	8	5.40	10.69	9.99	1.80	22.48	10.83	33.32
Tractor( 90-119hp)RB	MFWD 105	62,100	600	8	5.40	10.69	9.99	1.94	22.62	11.67	34.30
Tractor(120-139hp)CB	2WD 130	177,000	600	8	6.69	10.69	12.37	5.53	28.60	33.28	61.88
Tractor(120-139hp)CB	MFWD 130	123,000	600	8	6.69	10.69	12.37	3.84	26.91	23.13	50.04
Tractor(140-159hp)CB	2WD 150	108,000	600	8	7.72	10.69	14.28	3.37	28.34	20.30	48.65
Tractor(140-159hp)CB	MFWD 150	143,000	600	8	7.72	10.69	14.28	4.46	29.44	26.89	56.33
Tractor(160-179hp)CB	2WD 170	156,000	600	8	8.75	10.69	16.18	4.87	31.75	30.69	62.45
Tractor(160-179hp)CB	MFWD 170	170,000	600	8	8.75	10.69	16.18	5.31	32.19	33.45	65.64
Tractor(160-199hp)CB	Track 180	142,710	600	8	9.26	10.69	17.14	4.45	32.29	28.08	60.37
Tractor(180-199hp)CB	2WD 190	143,000	600	8	9.77	10.69	18.09	4.46	33.25	28.13	61.39
Tractor(180-199hp)CB	MFWD 190	186,000	600	8	9.77	10.69	18.09	5.81	34.59	36.60	71.19
Tractor(200-249hp)CB	4WD 225	147,066	600	8	11.58	10.69	21.42	4.59	36.71	28.93	65.65
Tractor(200-249hp)CB	MFWD 225	218,000	600	8	11.58	10.69	21.42	6.81	38.92	42.89	81.82
Tractor(200-249hp)CB	Track 225	277,000	600	8	11.58	10.69	21.42	8.65	40.77	54.50	95.28
Tractor(250-349hp)CB	4WD 300	281,000	600	8	15.44	10.69	28.56	8.78	48.03	55.29	103.33
Tractor(250-349hp)CB	Track 300	292,000	600	8	15.44	10.69	28.56	9.12	48.38	57.46	105.84
Tractor(350-449hp)CB	4WD 400	325,000	600	8	20.58	10.69	38.08	10.15	58.93	63.95	122.89
Tractor(350-449hp)CB	Track 400	351,000	600	8	20.58	10.69	38.08	10.96	59.74	69.07	128.81
Tractor(450-uphp)CB	TRACK-475	279,879	600	8	24.44	10.69	45.23	8.74	64.66	55.07	119.74

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 2017.

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	2.68	0.38	0.43	3.49	2.06	5.56
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	7.76	11.76	31.20	46.42	77.63
Cotton Picker-1st-BB	4R2X1260hp	357,000	200	8	13.33	0.172	3.87	4.24	9.61	17.73	37.92	55.65
Cotton Picker-1st-BB	4R30"250hp	262,000	200	8	12.86	0.327	7.35	7.79	13.40	28.54	52.88	81.43
Cotton Picker-1st-BB	4R30"325hp	350,000	200	8	18.01	0.327	7.35	10.90	17.90	36.16	70.64	106.80
Cotton Picker-1st-BB	4R38"255hp	268,000	200	8	13.12	0.257	5.78	6.25	10.79	22.84	42.59	65.43
Cotton Picker-1st-BB	4R38"325hp	351,000	200	8	18.01	0.257	5.78	8.58	14.13	28.51	55.78	84.29
Cotton Picker-1st-BB	5R30"255hp	285,000	200	8	12.86	0.261	5.88	6.23	11.66	23.77	46.01	69.79
Cotton Picker-1st-BB	5R38"250hp	284,601	200	8	12.86	0.207	4.65	4.93	9.21	18.80	36.35	55.15
Cotton Picker-1st-BB	6R30"325hp	465,000	200	8	18.27	0.218	4.90	7.37	15.85	28.13	62.56	90.70
Cotton Picker-1st-BB	6R38"330hp	465,000	200	8	18.27	0.172	3.87	5.82	12.51	22.21	49.39	71.61
Cotton Picker-1st-Tr	2R38"157hp	144,912	200	8	8.08	0.519	11.67	7.76	11.76	31.20	46.42	77.63
Cotton Picker-1st-Tr	4R2X1255hp	357,000	200	8	18.01	0.172	3.87	5.74	9.61	19.22	37.92	57.14
Cotton Picker-1st-Tr	4R30"250hp	261,825	200	8	12.86	0.327	7.35	7.79	13.39	28.53	52.84	81.38
Cotton Picker-1st-Tr	4R30"325hp	311,088	200	8	16.72	0.327	7.35	10.13	15.91	33.39	62.78	96.18
Cotton Picker-1st-Tr	4R38"255hp	268,000	200	8	13.12	0.257	5.78	6.25	10.79	22.84	42.59	65.43
Cotton Picker-1st-Tr	4R38"325hp	351,000	200	8	18.01	0.257	5.78	8.58	14.13	28.51	55.78	84.29
Cotton Picker-1st-Tr	5R30"255hp	285,303	200	8	13.12	0.261	5.88	6.35	11.67	23.91	46.06	69.98
Cotton Picker-1st-Tr	5R38"330hp	290,471	200	8	12.86	0.207	4.65	4.93	9.40	18.99	37.10	56.09
Cotton Picker-1st-Tr	6R30"325hp	465,000	200	8	16.72	0.218	4.90	6.75	15.85	27.51	62.56	90.08
Cotton Picker-1st-Tr	6R38"330hp	465,000	200	8	18.01	0.172	3.87	5.74	12.51	22.13	49.39	71.52
Cotton Picker-2nd-BB	2R38"157hp	144,912	200	8	8.08	0.440	9.88	6.57	9.96	26.43	39.32	65.75
Cotton Picker-2nd-BB	4R2x1260hp	357,000	200	8	18.01	0.145	3.27	4.86	8.14	16.28	32.12	48.40
Cotton Picker-2nd-BB	4R30"250hp	261,825	200	8	12.86	0.277	6.22	6.60	11.34	24.17	44.76	68.93
Cotton Picker-2nd-BB	4R30"325hp	311,088	200	8	16.72	0.277	6.22	8.58	13.47	28.29	53.18	81.47
Cotton Picker-2nd-BB	4R38"255hp	268,000	200	8	13.12	0.218	4.90	5.30	9.14	19.34	36.07	55.42
Cotton Picker-2nd-BB	4R38"325hp	351,000	200	8	18.01	0.218	4.90	7.27	11.97	24.15	47.25	71.40
Cotton Picker-2nd-BB	5R30"255hp	285,303	200	8	13.12	0.221	4.98	5.38	9.88	20.25	39.02	59.28
Cotton Picker-2nd-BB	5R38"250hp	284,601	200	8	12.86	0.175	3.94	4.17	7.80	15.92	30.79	46.72
Cotton Picker-2nd-BB	6R30"325hp	465,000	200	8	18.01	0.184	4.15	6.15	13.43	23.74	52.99	76.74
Cotton Picker-2nd-BB	6R38"330hp	465,000	200	8	18.01	0.145	3.27	4.86	10.60	18.74	41.84	60.58
Cotton Picker-2nd-Tr	2R38"157hp	144,912	200	8	8.08	0.440	9.88	6.57	9.96	26.43	39.32	65.75
Cotton Picker-2nd-Tr	4R2X1260hp	357,000	200	8	18.01	0.145	3.27	4.86	8.14	16.28	32.12	48.40
Cotton Picker-2nd-Tr	4R30"250hp	261,825	200	8	12.86	0.277	6.22	6.60	11.34	24.17	44.76	68.93
Cotton Picker-2nd-Tr	4R30"325hp	311,088	200	8	16.72	0.277	6.22	8.58	13.47	28.29	53.18	81.47
Cotton Picker-2nd-Tr	4R38"255hp	268,000	200	8	13.12	0.218	4.90	5.30	9.14	19.34	36.07	55.42
Cotton Picker-2nd-Tr	4R38"325hp	351,000	200	8	18.01	0.218	4.90	7.27	11.97	24.15	47.25	71.40
Cotton Picker-2nd-Tr	5R30"255hp	285,303	200	8	13.12	0.221	4.98	5.38	9.88	20.25	39.02	59.28
Cotton Picker-2nd-Tr	5R38"250hp	290,471	200	8	12.86	0.175	3.94	4.17	7.96	16.08	31.43	47.51
Cotton Picker-2nd-Tr	6R30"325hp	465,000	200	8	16.72	0.184	4.15	5.72	13.43	23.30	52.99	76.30
Cotton Picker-2nd-Tr	6R38"330hp	465,000	200	8	18.01	0.145	3.27	4.86	10.60	18.74	41.84	60.58
LA Pickup Truck	1/2 ton	25,000	800	5	2.50	1.000	10.69	4.75	2.81	18.25	6.65	24.90
LA Rice Combine	25 ft	165,000	300	10	8.60	0.300	5.05	4.77	13.21	23.04	20.07	43.12
LA Rice Combine-2	25 ft	165,000	300	10	8.60	0.300	5.05	4.77	13.21	23.04	20.07	43.12
LARice Combine Med	20 ft	150,000	300	10	7.10	0.210	3.53	2.75	8.40	14.69	12.76	27.46
Levee Sprayer	27'	30,768	350	8	2.57	0.038	0.68	0.18	0.06	0.93	0.41	1.34
SC Billet Harvester	6 ft	290,000	750	10	12.00	0.700	11.78	15.54	27.06	54.38	32.47	86.85
SC Harvester 1Rw	6 ft	115,000	400	12	6.80	0.875	14.72	11.00	20.96	46.69	26.80	73.49
SC Harvester 2Rw	12 ft	210,000	400	12	8.00	0.388	6.53	5.74	16.97	29.24	21.70	50.95
SC Loader 1Rw	6 ft	85,000	425	10	5.10	0.598	7.04	5.64	8.74	21.43	14.55	35.99
SC Loader 2Rw	12 ft	150,000	425	10	7.00	0.300	3.53	3.88	7.73	15.15	12.88	28.04
SC Transloader		30,000	120	12	4.70	0.250	2.93	2.17	3.75	8.86	6.65	15.52
SC Truck&Trailer	30 Ton	45,000	400	10	7.00	1.000	11.75	12.95	7.87	32.58	13.67	46.25
Sprayer( 300-450Gal)	47'	0	350	8	5.40	0.022	0.40	0.22	0.00	0.62	0.00	0.62
Sprayer( 300-450Gal)	60'	103,000	350	8	5.66	0.017	0.31	0.18	0.09	0.59	0.63	1.23
Sprayer( 300-450Gal)	80'	103,000	350	8	5.66	0.013	0.23	0.13	0.07	0.44	0.47	0.92
Sprayer( 600-750Gal)	60'	193,000	350	8	10.29	0.017	0.31	0.33	0.18	0.83	1.19	2.03
Sprayer( 600-825Gal)	80'	202,000	350	8	10.29	0.013	0.23	0.25	0.14	0.63	0.94	1.57
Sprayer( 600-825Gal)	90'	273,000	350	8	10.29	0.011	0.21	0.22	0.17	0.60	1.13	1.73
Sprayer(1000-1400Gal)	90'	294,000	350	8	14.15	0.014	0.25	0.36	0.22	0.84	1.46	2.30
Sprayer(1200PlusGal)	120'	343,000	350	8	15.44	0.008	0.15	0.25	0.16	0.57	1.06	1.63











Appendix Table 4. Implements: estimated purchase price, annual use, useful life, performance rate, (Continued) and direct and fixed cost per acre, Louisiana 2017.

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-----									
			dollars	hours	years	hr/ac										
Subsoiler low-till	4 shank	MFWD 225	10,800	100	15	0.153	1.64	3.29	0.55	1.04	6.53	1.36	6.59	14.49		
Subsoiler low-till	6 shank	MFWD 225	16,600	100	15	0.102	1.09	2.18	0.56	0.69	4.54	1.39	4.38	10.32		
Subsoiler low-till	8 shank	MFWD 225	20,600	100	15	0.076	0.81	1.63	0.52	0.52	3.50	1.29	3.28	8.08		
TerraTill Bed w/roll	4R-38	MFWD 225	14,300	150	12	0.160	1.71	3.44	0.83	1.09	7.09	1.44	6.90	15.43		
TerraTill Bed w/roll	6R-38	MFWD 225	19,400	150	12	0.107	1.14	2.30	0.75	0.73	4.93	1.30	4.61	10.86		
TerraTill Bed w/roll	4R-30	MFWD 225	14,300	150	12	0.204	2.18	4.37	1.05	1.39	9.00	1.83	8.76	19.60		
TerraTill Bed w/roll	6R-30	MFWD 225	15,310	150	12	0.136	1.45	2.91	0.75	0.92	6.05	1.30	5.84	13.20		
Boll Buggy-1st Pick	2R38*157hp	MFWD 190	30,500	200	10	0.519	5.55	9.40	3.96	3.02	21.93	8.05	19.01	49.01		
Boll Buggy-1st pick	4R2x1260hp	MFWD 190	30,500	200	10	0.172	1.84	3.11	1.31	1.00	7.27	2.67	6.30	16.25		
Boll Buggy-1st pick	4R30*1260hp	MFWD 190	30,500	200	10	0.327	3.49	5.92	2.49	1.90	13.82	5.07	11.98	30.88		
Boll Buggy-1st pick	4R30*325hp	MFWD 190	30,500	200	10	0.327	3.49	5.92	2.49	1.90	13.82	5.07	11.98	30.88		
Boll Buggy-1st pick	4R38*255hp	MFWD 190	30,500	200	10	0.257	2.75	4.66	1.96	1.49	10.88	3.99	9.43	24.31		
Boll Buggy-1st pick	4R38*325hp	MFWD 190	30,500	200	10	0.257	2.75	4.66	1.96	1.49	10.88	3.99	9.43	24.31		
Boll Buggy-1st pick	5R30*255hp	MFWD 190	30,500	200	10	0.261	2.79	4.73	1.99	1.52	11.05	4.06	9.58	24.70		
Boll Buggy-1st pick	5R38*255hp	MFWD 190	30,500	200	10	0.207	2.21	3.74	1.57	1.20	8.74	3.21	7.58	19.54		
Boll Buggy-1st pick	6R30*325hp	MFWD 190	30,500	200	10	0.218	2.33	3.94	1.66	1.26	9.21	3.38	7.98	20.58		
Boll Buggy-1st pick	6R38*325hp	MFWD 190	30,500	200	10	0.172	1.84	3.11	1.31	1.00	7.27	2.67	6.30	16.25		
Boll Buggy-2nd pick	2R38*157hp	MFWD 190	30,500	200	10	0.440	4.70	7.96	3.35	2.55	18.58	6.82	16.11	41.52		
Boll Buggy-2nd pick	4R2x1260hp	MFWD 190	30,500	200	10	0.145	1.56	2.64	1.11	0.84	6.16	2.26	5.34	13.76		
Boll Buggy-2nd pick	4R30*255hp	MFWD 190	30,500	200	10	0.277	2.96	5.01	2.11	1.61	11.70	4.29	10.14	26.15		
Boll Buggy-2nd pick	4R30*325hp	MFWD 190	30,500	200	10	0.277	2.96	5.01	2.11	1.61	11.70	4.29	10.14	26.15		
Boll Buggy-2nd pick	4R38 255hp	MFWD 190	30,500	200	10	0.218	2.33	3.95	1.66	1.26	9.21	3.38	7.99	20.59		
Boll Buggy-2nd pick	4R38 325hp	MFWD 190	30,500	200	10	0.218	2.33	3.95	1.66	1.26	9.21	3.38	7.99	20.59		
Boll Buggy-2nd pick	5R30*255hp	MFWD 190	30,500	200	10	0.221	2.37	4.01	1.69	1.28	9.36	3.43	8.12	20.92		
Boll Buggy-2nd pick	5R38*255hp	MFWD 190	30,500	200	10	0.175	1.87	3.17	1.33	1.02	7.31	2.72	6.42	16.55		
Boll Buggy-2nd pick	6R30*325hp	MFWD 190	30,500	200	10	0.184	1.97	3.34	1.40	1.07	7.80	2.86	6.76	17.43		
Boll Buggy-2nd pick	6R38*325hp	MFWD 190	30,500	200	10	0.145	1.56	2.64	1.11	0.84	6.16	2.26	5.34	13.76		
Boll Buggy-Stripper	13' Bcast	MFWD 150	30,500	200	10	0.251	2.69	3.59	1.92	1.12	9.33	3.90	6.77	20.01		
Boll Buggy-Stripper	16' Bcast	MFWD 150	30,500	200	10	0.204	2.18	2.92	1.56	0.91	7.58	3.17	5.50	16.25		
Boll Buggy-Stripper	19' Bcast	MFWD 150	30,500	200	10	0.172	1.84	2.46	1.31	0.77	6.38	2.67	4.63	13.69		
Boll Buggy-Stripper	4R30*2X1Br	MFWD 150	30,500	200	10	0.218	2.33	3.11	1.66	0.97	8.08	3.38	5.86	17.34		
Boll Buggy-Stripper	4R30*Brush	MFWD 150	30,500	200	10	0.327	3.49	4.67	2.49	1.46	12.13	5.07	8.80	26.01		
Boll Buggy-Stripper	4R38*2X1Br	MFWD 150	30,500	200	10	0.172	1.84	2.46	1.31	0.77	6.38	2.67	4.63	13.69		
Boll Buggy-Stripper	4R38*Brush	MFWD 150	30,500	200	10	0.257	2.75	3.68	1.96	1.15	9.55	3.99	6.93	20.48		
Boll Buggy-Stripper	5R30*Brush	MFWD 150	30,500	200	10	0.261	2.79	3.74	1.99	1.17	9.70	4.06	7.04	20.81		
Boll Buggy-Stripper	5R38*Brush	MFWD 150	30,500	200	10	0.207	2.21	2.95	1.57	0.92	7.68	3.21	5.57	16.46		
Boll Buggy-Stripper	6R30*Brush	MFWD 150	30,500	200	10	0.218	2.33	3.11	1.66	0.97	8.08	3.38	5.86	17.34		
Module Builder-1st	2R-38(157)	MFWD 190	31,300	200	10	0.519	11.11	9.40	4.06	3.02	27.59	8.26	19.02	54.88		
Module Builder-1st	4R-30(255)	MFWD 190	34,700	200	10	0.327	6.99	5.92	2.84	1.90	17.66	5.77	11.98	35.42		
Module Builder-1st	4R-30(325)	MFWD 190	34,700	200	10	0.327	6.99	5.92	2.84	1.90	17.66	5.77	11.98	35.42		
Module Builder-1st	4R-38(255)	MFWD 190	34,700	200	10	0.257	5.51	4.66	2.23	1.49	13.90	4.54	9.43	27.89		
Module Builder-1st	4R-38(325)	MFWD 190	34,700	200	10	0.257	5.51	4.66	2.23	1.49	13.90	4.54	9.43	27.89		
Module Builder-1st	4R2x1260hp	MFWD 190	34,700	200	10	0.172	3.68	3.11	1.49	1.00	9.29	3.03	6.30	18.64		
Module Builder-1st	5R-30(255)	MFWD 190	34,700	200	10	0.261	5.59	4.73	2.27	1.52	14.13	4.62	9.58	28.33		
Module Builder-1st	5R-38(255)	MFWD 190	34,700	200	10	0.207	4.43	3.74	1.79	1.20	11.18	3.65	7.58	22.41		
Module Builder-1st	6R-30(325)	MFWD 190	34,700	200	10	0.218	4.66	3.94	1.89	1.26	11.77	3.85	7.98	23.61		
Module Builder-1st	6R-38(325)	MFWD 190	34,700	200	10	0.172	3.68	3.11	1.49	1.00	9.29	3.03	6.30	18.64		
Module Builder-2nd	2R-38(157)	MFWD 190	34,700	200	10	0.440	9.41	7.96	3.81	2.55	23.75	7.76	16.11	47.62		
Module Builder-2nd	4R-30(255)	MFWD 190	34,700	200	10	0.277	5.92	5.01	2.40	1.61	14.96	4.89	10.14	30.00		
Module Builder-2nd	4R-30(325)	MFWD 190	34,700	200	10	0.277	5.92	5.01	2.40	1.61	14.96	4.89	10.14	30.00		
Module Builder-2nd	4R-38(255)	MFWD 190	34,700	200	10	0.218	4.66	3.95	1.89	1.26	11.78	3.85	7.99	23.62		
Module Builder-2nd	4R-38(325)	MFWD 190	34,700	200	10	0.218	4.66	3.95	1.89	1.26	11.78	3.85	7.99	23.62		
Module Builder-2nd	4R2x1 255	MFWD 190	34,700	200	10	0.145	3.12	2.64	1.26	0.84	7.87	2.57	5.34	15.79		
Module Builder-2nd	5R-30(255)	MFWD 190	34,700	200	10	0.221	4.74	4.01	1.92	1.28	11.97	3.91	8.11	24.00		
Module Builder-2nd	5R-38(255)	MFWD 190	34,700	200	10	0.175	3.75	3.17	1.52	1.02	9.47	3.09	6.42	18.99		
Module Builder-2nd	6R-30(325)	MFWD 190	34,700	200	10	0.184	3.95	3.34	1.60	1.07	9.97	3.26	6.76	20.00		
Module Builder-2nd	6R-38(325)	MFWD 190	34,700	200	10	0.145	3.12	2.64	1.26	0.84	7.87	2.57	5.34	15.79		
Module Builder-Strip	13' Bcast	MFWD 150	34,700	200	10	0.251	5.38	3.59	2.18	1.12	12.29	4.44	6.77	23.50		
Module Builder-Strip	16' Bcast	MFWD 150	34,700	200	10	0.204	4.37	2.92	1.77	0.91	9.98	3.60	5.50	19.09		
Module Builder-Strip	19' Brush	MFWD 150	34,700	200	10	0.172	3.68	2.46	1.49	0.77	8.41	3.03	4.63	16.08		
Module Builder-Strip	4R-30	MFWD 150	34,700	200	10	0.327	6.99	4.67	2.84	1.46	15.97	5.77	8.80	30.55		
Module Builder-Strip	4R-30 2X1	MFWD 150	34,700	200	10	0.218	4.66	3.11	1.89	0.97	10.65	3.85	5.86	20.37		
Module Builder-Strip	4R-38	MFWD 150	34,700	200	10	0.257	5.51	3.68	2.23	1.15	12.58	4.54	6.93	24.06		
Module Builder-Strip	4R-38 2X1	MFWD 150	34,700	200	10	0.172	3.68	2.46	1.49	0.77	8.41	3.03	4.63	16.08		
Module Builder-Strip	5R-30	MFWD 150	34,700	200	10	0.261	5.59	3.74	2.27	1.17	12.78	4.62	7.04	24.44		
Module Builder-Strip	5R-38	MFWD 150	34,700	200	10	0.207	4.42	2.95	1.79	0.92	10.11	3.65	5.57	19.34		