

**GRAIN SORGHUM, IRRIGATED  
SOUTH GEORGIA, 2010**

**ESTIMATED COSTS AND RETURNS**

Expected Yield 100 Bushels YIELD: YOUR FARM \_\_\_\_\_

Variable Costs:	Unit	Number of Units	\$/Unit	Cost/Acre	\$/Bushels	Your Farm
Seed with Treatment	Thous.	100.00	\$ 0.145	\$ 14.54	\$ 0.15	_____
Lime	Tons	0.25	\$ 33.30	\$ 8.33	\$ 0.08	_____
Fertilizer						
Nitrogen	Lbs	100.00	\$ 0.45	\$ 45.00	\$ 0.45	_____
Phosphate (P2O5)	Lbs	60.00	\$ 0.25	\$ 15.00	\$ 0.15	_____
Potash (K2O)	Lbs	60.00	\$ 0.50	\$ 30.00	\$ 0.30	_____
Weed Control						
Pre-emerge <sup>1</sup> - Dual Magnum	Acre	1.00	\$ 11.55	\$ 11.55	\$ 0.12	_____
Post -emerge - Atrazine	Acre	1.00	\$ 6.45	\$ 6.45	\$ 0.06	_____
Insect Control	Acre	1.00	\$ -	\$ -	\$ -	_____
<i>Machinery: Preharvest<sup>2</sup></i>						
Fuel	Gallon	4.75	\$ 2.50	\$ 11.87	\$ 0.12	_____
Repairs & Maintenance	Acre	1.00	\$ 9.47	\$ 9.47	\$ 0.09	_____
<i>Machinery: Harvest</i>						
Fuel	Gallon	2.65	\$ 2.50	\$ 6.63	\$ 0.07	_____
Repairs & Maintenance	Acre	1.00	\$ 4.13	\$ 4.13	\$ 0.04	_____
Irrigation <sup>3</sup>	Inch	3.50	\$ 9.00	\$ 31.50	\$ 0.32	_____
Labor	Hrs	1.02	\$ 11.00	\$ 11.27	\$ 0.11	_____
Crop Insurance	Acre	1.00	\$ 13.00	\$ 13.00	\$ 0.13	_____
Land Rental	Acre	1.00	\$ -	\$ -	\$ -	_____
Interest on Operating capital	Percent	\$ 109.36	7.25%	\$ 7.93	\$ 0.08	_____
Drying - 8 points	Bushel	109.74	\$ 0.28	\$ 30.73	\$ 0.31	_____
<b>Total Variable Costs</b>				<b>\$ 257.38</b>	<b>\$ 2.57</b>	_____

**Fixed Costs:**

<i>Machinery: Depreciation, Taxes, Insurance, and Housing</i>						
Preharvest	Acre	1.00	\$ 24.91	\$ 24.91	\$ 0.25	_____
Harvest	Acre	1.00	\$ 26.73	\$ 26.73	\$ 0.27	_____
General Overhead	% of VC	\$ 257.38	5.00%	\$ 12.87	\$ 0.13	_____
Management	% of VC	\$ 257.38	5.00%	\$ 12.87	\$ 0.13	_____
Irrigation	Acre	1.00	\$ 100.00	\$ 100.00	\$ 1.00	_____
Owned Land Costs; Taxes, Cash Payment, Etc.	Acre	1.00	\$ -	\$ -	\$ -	_____
Other _____						
<b>Total Fixed Costs</b>				<b>\$ 177.38</b>	<b>\$ 1.77</b>	_____

**TOTAL COSTS AND PROFIT GOAL**

<b>Total Costs Excluding Land</b>	<b>\$ 434.76</b>	<b>\$ 4.35</b>
**** YOUR PROFIT GOAL ****	\$ _____/Bu.	
<b>\$\$-PRICE NEEDED FOR PROFIT-\$\$</b>	\$ _____/Bu.	

(1) Substituting mechanical cultivation for pre-emerge herbicide application would lower variable cost by \$11 per acre and increase fixed costs by \$1.75 per acre.

(2) Planting may also be done with a grain drill in place of row crop planter. Substitution of a planter and rip and bed operation with field cultivation and 20' grain drill would lower variable cost by \$3.35 per acre and lower fixed cost by \$0.84

(3) Average of diesel and electric irrigation application costs. Electric is estimated to be \$6/application and diesel is estimated to be \$12/application at \$2.50/gallon diesel.

**Sensitivity Analysis of GRAIN SORGHUM, IRRIGATED**

NET RETURNS ABOVE VARIABLE COSTS PER ACRE					
Varying Prices and Yield (Bushels)					
Bu/Acre	-25%	-10%	Average	+10%	+25%
	75	90	100	110	125
\$3.00	\$ (32.38)	\$ 12.62	\$ 42.62	\$ 72.62	\$ 117.62
\$3.25	\$ (13.63)	\$ 35.12	\$ 67.62	\$ 100.12	\$ 148.87
\$3.50	\$ 5.12	\$ 57.62	\$ 92.62	\$ 127.62	\$ 180.12
\$3.75	\$ 23.87	\$ 80.12	\$ 117.62	\$ 155.12	\$ 211.37
\$4.00	\$ 42.62	\$ 102.62	\$ 142.62	\$ 182.62	\$ 242.62

**ESTIMATED LABOR AND MACHINERY COSTS PER ACRE**

PREHARVEST OPERATIONS						
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)
Heavy Disk27' with Tractor (180-199 hp) MFWD 190	13.214	2.00	0.15	1.48	3.03	8.81
Disk & Incorporate32' with Tractor (180-199 hp)-MFWD 190	15.515	1.00	0.06	0.63	1.53	4.02
Disk Bed (Hipper)6R-36 with Tractor (180-199 hp)-MFWD 190	9.600	1.00	0.10	1.02	1.74	4.36
Plant - Rigid6R-36 with Tractor (120-139 hp)-2WD 130	9.573	1.00	0.10	0.70	1.43	3.98
Fert Appl (Liquid)6R-36 with Tractor (120-139 hp)-2WD 130	9.164	1.00	0.11	0.73	1.49	3.13
Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130	35.455	1.00	0.03	0.19	0.25	0.61
<b>Total Preharvest Fuel, Repairs, Fixed Costs, &amp; Labor</b>			<b>0.562</b>	<b>4.75</b>	<b>\$ 9.47</b>	<b>\$ 24.91</b>

HARVEST OPERATIONS						
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)
Header - Corn6R 36" with Combine (200-249 hp)-240hp	6.109	1.000	0.164	2.022	\$ 3.53	\$ 24.18
Corn Grain Cart 8R36500 bu with Tractor (120-139 hp)-2WD 130	10.642	1.000	0.094	0.629	\$ 0.60	\$ 2.55
<b>Total Harvest Fuel, Repairs, Fixed Costs, and Labor</b>			<b>0.258</b>	<b>2.65</b>	<b>\$ 4.13</b>	<b>\$ 26.73</b>

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