

**GRAIN SORGHUM, NON-IRRIGATED, STRIP-TILLAGE  
SOUTH GEORGIA, 2010**

**ESTIMATED COSTS AND RETURNS**

Expected Yield

**65 Bushels**

YIELD: YOUR FARM \_\_\_\_\_

Variable Costs:	Unit	Number of		\$/Unit	Cost/Acre	\$/Bushels	Your Farm
		Units					
Seed with Treatment	Thous.	50.00	\$	0.145	\$ 7.27	\$ 0.11	_____
Cover Crop Seed	Bushel	1.50	\$	11.00	\$ 16.50	\$ 0.25	_____
Lime	Tons	0.25	\$	33.30	\$ 8.33	\$ 0.13	_____
Fertilizer							
Nitrogen	Lbs	80.00	\$	0.45	\$ 36.00	\$ 0.55	_____
Phosphate (P2O5)	Lbs	60.00	\$	0.25	\$ 15.00	\$ 0.23	_____
Potash (K2O)	Lbs	60.00	\$	0.50	\$ 30.00	\$ 0.46	_____
Weed Control							
Pre-emerge <sup>1</sup> - Dual Magnum	Acre	1.00	\$	11.55	\$ 11.55	\$ 0.18	_____
Post -emerge - Atrazine	Acre	1.00	\$	6.45	\$ 6.45	\$ 0.10	_____
Insect Control	Acre	1.00	\$	-	\$ -	\$ -	_____
<i>Machinery: Preharvest<sup>2</sup></i>							
Fuel	Gallon	3.41	\$	2.50	\$ 8.53	\$ 0.13	_____
Repairs & Maintenance	Acre	1.00	\$	6.60	\$ 6.60	\$ 0.10	_____
<i>Machinery: Harvest</i>							
Fuel	Gallon	2.65	\$	2.50	\$ 6.63	\$ 0.10	_____
Repairs & Maintenance	Acre	1.00	\$	4.13	\$ 4.13	\$ 0.06	_____
Labor	Hrs	0.84	\$	11.00	\$ 9.24	\$ 0.14	_____
Crop Insurance	Acre	1.00	\$	9.00	\$ 9.00	\$ 0.14	_____
Land Rental	Acre	1.00	\$	-	\$ -	\$ -	_____
Interest on Operating capital	Percent	\$ 87.61		7.25%	\$ 6.35	\$ 0.10	_____
Drying - 8 points	Bushel	71.33	\$	0.28	\$ 19.97	\$ 0.31	_____
<b>Total Variable Costs</b>					<b>\$ 201.55</b>	<b>\$ 3.10</b>	
<b>Fixed Costs:</b>							
Machinery: Depreciation, Taxes, Insurance, and Housing							
Preharvest	Acre	1.00	\$	17.93	\$ 17.93	\$ 0.28	_____
Harvest	Acre	1.00	\$	26.73	\$ 26.73	\$ 0.41	_____
General Overhead	% of VC	\$ 201.55		5.00%	\$ 10.08	\$ 0.16	_____
Management	% of VC	\$ 201.55		5.00%	\$ 10.08	\$ 0.16	_____
Owned Land Costs; Taxes, Cash Payment, Etc.	Acre	1.00	\$	-	\$ -	\$ -	_____
Other _____	Acre	1.00	\$	-	\$ -	\$ -	_____
<b>Total Fixed Costs</b>					<b>\$ 64.81</b>	<b>\$ 1.00</b>	
<b>TOTAL COSTS AND PROFIT GOAL</b>							
<b>Total Costs Excluding Land</b>					<b>\$ 266.36</b>	<b>\$ 4.10</b>	
**** YOUR PROFIT GOAL ****					\$ _____/Bu.		
\$\$-PRICE NEEDED FOR PROFIT-\$\$					\$ _____/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 per acre.

**Sensitivity Analysis of GRAIN SORGHUM, NON-IRRIGATED, STRIP-TILLAGE**

NET RETURNS ABOVE VARIABLE COSTS PER ACRE						
Varying Prices and Yield (Bushels)						
Bu/Acre	-25%	-10%	Average	+10%	+25%	
	48.75	58.5	65	71.5	81.25	
\$3.00	\$ (55.30)	\$ (26.05)	\$ (6.55)	\$ 12.95	\$ 42.20	
\$3.25	\$ (43.11)	\$ (11.43)	\$ 9.70	\$ 30.82	\$ 62.51	
\$3.50	\$ (30.93)	\$ 3.20	\$ 25.95	\$ 48.70	\$ 82.82	
\$3.75	\$ (18.74)	\$ 17.82	\$ 42.20	\$ 66.57	\$ 103.14	
\$4.00	\$ (6.55)	\$ 32.45	\$ 58.45	\$ 84.45	\$ 123.45	

**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)	
Spin Spreader 5 ton with Tractor (120-139 hp)-2WD 130	23.758	1.00	0.04	0.28	0.50	1.42	
Disk Harrow 32' with Tractor (180-199 hp)-MFWD 190	16.291	1.00	0.06	0.60	1.30	3.78	
Spray (Broadcast) 60' with Tractor (120-139 hp)-2WD 130	35.455	1.00	0.03	0.19	0.25	0.61	
ST Plant-Rigid 6R-36 with Tractor (180-199 hp)-MFWD 190	6.873	1.00	0.15	1.42	2.80	8.38	
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>0.41</b>	<b>3.41</b>	<b>\$ 6.60</b>	<b>\$ 17.93</b>	

HARVEST OPERATIONS							
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)	
Header - Corn 6R 36" with Combine (200-249 hp) 240hp	6.109	1.000	0.164	2.02	\$ 3.53	\$ 24.18	
Corn Grain Cart 8R36500 bu with Tractor (120-139 hp)-2WD 130	10.642	1.000	0.094	0.63	\$ 0.60	\$ 2.55	
<b>Total Harvest Fuel, Repairs, Fixed Costs, and Labor</b>			<b>0.26</b>	<b>2.65</b>	<b>\$ 4.13</b>	<b>\$ 26.73</b>	

Prepared By: Amanda R Smith and Nathan B Smith, UGA Extension Economists, Department of Agricultural & Applied Economics

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