

**GRAIN SORGHUM, NON-IRRIGATED, STRIP-TILLAGE
SOUTH GEORGIA, 2009**

ESTIMATED COSTS AND RETURNS

Expected Yield

65 Bushels

YIELD: YOUR FARM _____

| Variable Costs: | Unit | Number of | | Cost/Acre | \$/Bushels | Your Farm |
|--|---------|-----------|----------|------------------|----------------|-----------|
| | | Units | \$/Unit | | | |
| 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 | \$ 40.00 | \$ 10.00 | \$ 0.15 | _____ |
| Fertilizer | | | | | | |
| Nitrogen | Lbs | 80.00 | \$ 0.60 | \$ 48.00 | \$ 0.74 | _____ |
| Phosphate (P2O5) | Lbs | 60.00 | \$ 0.30 | \$ 18.00 | \$ 0.28 | _____ |
| Potash (K2O) | Lbs | 60.00 | \$ 0.70 | \$ 42.00 | \$ 0.65 | _____ |
| Weed Control | | | | | | |
| Pre-emerge ¹ - Dual Magnum | Acre | 1.00 | \$ 11.13 | \$ 11.13 | \$ 0.17 | _____ |
| Post -emerge - Atrazine | Acre | 1.00 | \$ 6.00 | \$ 6.00 | \$ 0.09 | _____ |
| Insect Control | Acre | 1.00 | \$ - | \$ - | \$ - | _____ |
| <i>Machinery: Preharvest²</i> | | | | | | |
| Fuel | Gallon | 3.05 | \$ 2.25 | \$ 6.86 | \$ 0.11 | _____ |
| Repairs & Maintenance | Acre | 1.00 | \$ 6.04 | \$ 6.04 | \$ 0.09 | _____ |
| <i>Machinery: Harvest</i> | | | | | | |
| Fuel | Gallon | 2.65 | \$ 2.25 | \$ 5.96 | \$ 0.09 | _____ |
| Repairs & Maintenance | Acre | 1.00 | \$ 3.66 | \$ 3.66 | \$ 0.06 | _____ |
| Labor | Hrs | 0.77 | \$ 11.00 | \$ 8.49 | \$ 0.13 | _____ |
| Crop Insurance | Acre | 1.00 | \$ 10.00 | \$ 10.00 | \$ 0.15 | _____ |
| Land Rental | Acre | 1.00 | \$ - | \$ - | \$ - | _____ |
| Interest on Operating capital | Percent | \$ 99.95 | 7.50% | \$ 7.50 | \$ 0.12 | _____ |
| Drying - 8 points | Bushel | 71.33 | \$ 0.28 | \$ 19.97 | \$ 0.31 | _____ |
| Total Variable Costs | | | | \$ 227.38 | \$ 3.50 | |
| Fixed Costs: | | | | | | |
| Machinery: Depreciation, Taxes, Insurance, and Housing | | | | | | |
| Preharvest | Acre | 1.00 | \$ 16.65 | \$ 16.65 | \$ 0.26 | _____ |
| Harvest | Acre | 1.00 | \$ 23.75 | \$ 23.75 | \$ 0.37 | _____ |
| General Overhead | % of VC | \$ 227.38 | 5.00% | \$ 11.37 | \$ 0.17 | _____ |
| Management | % of VC | \$ 227.38 | 5.00% | \$ 11.37 | \$ 0.17 | _____ |
| Owned Land Costs; Taxes, Cash Payment, Etc. | Acre | 1.00 | \$ - | \$ - | \$ - | _____ |
| Other _____ | Acre | 1.00 | \$ - | \$ - | \$ - | _____ |
| Total Fixed Costs | | | | \$ 63.14 | \$ 0.97 | |
| TOTAL COSTS AND PROFIT GOAL | | | | | | |
| Total Costs Excluding Land | | | | \$ 290.51 | \$ 4.47 | |
| **** YOUR PROFIT GOAL **** | | | | \$ _____/Bu. | | |
| \$\$-PRICE NEEDED FOR PROFIT-\$\$ | | | | \$ _____/Bu. | | |

(1) Substituting mechanical cultivation for pre-emerge herbicide application would lower variable cost by \$10 per acre and in 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 \$2.65 per acre and lower fixed cost by \$1.60 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 | \$ (81.13) | \$ (51.88) | \$ (32.38) | \$ (12.88) | \$ 16.37 | |
| \$3.25 | \$ (68.94) | \$ (37.25) | \$ (16.13) | \$ 5.00 | \$ 36.69 | |
| \$3.50 | \$ (56.75) | \$ (22.63) | \$ 0.12 | \$ 22.87 | \$ 57.00 | |
| \$3.75 | \$ (44.56) | \$ (8.00) | \$ 16.37 | \$ 40.75 | \$ 77.31 | |
| \$4.00 | \$ (32.38) | \$ 6.62 | \$ 32.62 | \$ 58.62 | \$ 97.62 | |

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) | |
| 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 | 18.327 | 1.00 | 0.05 | 0.37 | 0.93 | 1.84 | |
| Spray (Broadcast) 60' with Tractor (120-139 hp)-2WD 130 | 35.455 | 1.00 | 0.03 | 0.19 | 0.25 | 0.61 | |
| Total Preharvest Fuel, Repairs, Fixed Costs, & Labor | | | 0.36 | 3.05 | \$ 6.04 | \$ 16.65 | |

| 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 | \$ 3.06 | \$ 21.20 | |
| Corn Grain Cart 8R36500 bu with Tractor (120-139 hp)-2WD 130 | 10.642 | 1.000 | 0.094 | 0.63 | \$ 0.60 | \$ 2.55 | |
| Total Harvest Fuel, Repairs, Fixed Costs, and Labor | | | 0.26 | 2.65 | \$ 3.66 | \$ 23.75 | |

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