

**GRAIN SORGHUM, IRRIGATED
SOUTH GEORGIA, 2008**

ESTIMATED COSTS AND RETURNS

Expected Yield 100 Bushels YIELD: YOUR FARM _____

| Variable Costs: | Unit | Number of | | \$/Unit | Cost/Acre | \$/Bushels | Your Farm |
|---------------------------------------|---------|-----------|----|---------|------------------|----------------|-----------|
| | | Units | | | | | |
| Seed | Thous. | 100.00 | \$ | 0.092 | \$ 9.20 | \$ 0.09 | _____ |
| Seed Treatment | Thous. | 100.00 | \$ | 0.021 | \$ 2.10 | \$ 0.02 | _____ |
| Lime | Tons | 0.25 | \$ | 40.00 | \$ 10.00 | \$ 0.10 | _____ |
| Fertilizer | | | | | | | |
| Nitrogen | Lbs | 100.00 | \$ | 0.53 | \$ 53.00 | \$ 0.53 | _____ |
| Phosphate (P2O5) | Lbs | 60.00 | \$ | 0.40 | \$ 24.00 | \$ 0.24 | _____ |
| Potash (K2O) | Lbs | 60.00 | \$ | 0.30 | \$ 18.00 | \$ 0.18 | _____ |
| Weed Control | | | | | | | |
| Pre-emerge ¹ - Dual Magnum | Acre | 1.00 | \$ | 11.50 | \$ 11.50 | \$ 0.11 | _____ |
| Post-emerge - Atrazine | Acre | 1.00 | \$ | 3.09 | \$ 3.09 | \$ 0.03 | _____ |
| Insect Control | Acre | 1.00 | \$ | - | \$ - | \$ - | _____ |
| Machinery: Preharvest ² | | | | | | | |
| Fuel | Gallon | 4.01 | \$ | 3.00 | \$ 12.02 | \$ 0.12 | _____ |
| Repairs & Maintenance | Acre | 1.00 | \$ | 7.01 | \$ 7.01 | \$ 0.07 | _____ |
| Machinery: Harvest | | | | | | | |
| Fuel | Gallon | 2.65 | \$ | 3.00 | \$ 7.95 | \$ 0.08 | _____ |
| Repairs & Maintenance | Acre | 1.00 | \$ | 3.66 | \$ 3.66 | \$ 0.04 | _____ |
| Irrigation ³ | Inch | 3.50 | \$ | 13.50 | \$ 47.25 | \$ 0.47 | _____ |
| Labor | Hrs | 0.93 | \$ | 10.50 | \$ 9.76 | \$ 0.10 | _____ |
| Crop Insurance | Acre | 1.00 | \$ | 12.00 | \$ 12.00 | \$ 0.12 | _____ |
| Land Rental | Acre | 1.00 | \$ | - | \$ - | \$ - | _____ |
| Interest on Operating capital | Percent | \$ 115.27 | | 8.50% | \$ 9.80 | \$ 0.10 | _____ |
| Drying - 8 points | Bushel | 109.74 | \$ | 0.28 | \$ 30.73 | \$ 0.31 | _____ |
| Total Variable Costs | | | | | \$ 271.07 | \$ 2.71 | |

| Fixed Costs: | | | | | | | |
|--|---------|-----------|----|-------|------------------|----------------|-------|
| Machinery: Depreciation, Taxes, Insurance, and Housing | | | | | | | |
| Preharvest | Acre | 1.00 | \$ | 18.77 | \$ 18.77 | \$ 0.19 | _____ |
| Harvest | Acre | 1.00 | \$ | 23.56 | \$ 23.56 | \$ 0.24 | _____ |
| General Overhead | % of VC | \$ 271.07 | | 5.00% | \$ 13.55 | \$ 0.14 | _____ |
| Management | % of VC | \$ 271.07 | | 5.00% | \$ 13.55 | \$ 0.14 | _____ |
| Irrigation | Acre | 1.00 | \$ | 90.00 | \$ 90.00 | \$ 0.90 | _____ |
| Owned Land Costs; Taxes, Cash Payment, Etc. | Acre | 1.00 | \$ | - | \$ - | \$ - | _____ |
| Other _____ | | | | | | | |
| Total Fixed Costs | | | | | \$ 159.44 | \$ 1.59 | |

TOTAL COSTS AND PROFIT GOAL

| | | |
|-----------------------------------|------------------|----------------|
| Total Costs Excluding Land | \$ 430.51 | \$ 4.31 |
| **** YOUR PROFIT GOAL **** | \$ _____/Bu. | |
| \$\$-PRICE NEEDED FOR PROFIT-\$\$ | \$ _____/Bu. | |

FOOTNOTES

(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

(3) Irrigation application assumes use of diesel power unit. Electric power unit is estimated to be 50% of the cost of \$3.00 per gal 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 | \$ (46.07) | \$ (1.07) | \$ 28.93 | \$ 58.93 | \$ 103.93 |
| \$3.25 | \$ (27.32) | \$ 21.43 | \$ 53.93 | \$ 86.43 | \$ 135.18 |
| \$3.50 | \$ (8.57) | \$ 43.93 | \$ 78.93 | \$ 113.93 | \$ 166.43 |
| \$3.75 | \$ 10.18 | \$ 66.43 | \$ 103.93 | \$ 141.43 | \$ 197.68 |
| \$4.00 | \$ 28.93 | \$ 88.93 | \$ 128.93 | \$ 168.93 | \$ 228.93 |

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 | 1.00 | 0.08 | 0.74 | 1.38 | 4.02 | |
| Disk & Incorporate32' with Tractor (180-199 hp)-MFWD 190 | 15.515 | 1.00 | 0.06 | 0.63 | 1.33 | 3.49 | |
| Disk Bed (Hipper)6R-36 with Tractor (180-199 hp)-MFWD 190 | 9.600 | 1.00 | 0.10 | 1.02 | 1.17 | 3.63 | |
| Plant - Rigid6R-36 with Tractor (120-139 hp)-2WD 130 | 9.573 | 1.00 | 0.10 | 0.70 | 1.40 | 3.90 | |
| Fert Appl (Liquid)6R-36 with Tractor (120-139 hp)-2WD 130 | 9.164 | 1.00 | 0.11 | 0.73 | 1.47 | 3.11 | |
| Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130 | 35.455 | 1.00 | 0.03 | 0.19 | 0.26 | 0.63 | |
| Total Preharvest Fuel, Repairs, Fixed Costs, & Labor | | | 0.486 | 4.01 | \$ 7.01 | \$ 18.77 | |

| 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 | \$ 3.06 | \$ 21.11 | |
| Corn Grain Cart 8R36500 bu with Tractor (120-139 hp)-2WD 130 | 10.642 | 1.000 | 0.094 | 0.629 | \$ 0.60 | \$ 2.46 | |
| Total Harvest Fuel, Repairs, Fixed Costs, and Labor | | | 0.258 | 2.65 | \$ 3.66 | \$ 23.56 | |

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