

COTTON- Conventional Tillage, Irrigated
2011 ESTIMATED PER ACRE COSTS AND RETURNS, SOUTH AND EAST GEORGIA

| | | | |
|------------------|---|----------------|---------------|
| Seed Technology: | B2 or W --- R or RF or LL | Row Spacing: | 36 |
| Tillage: | Conventional | Seed Per Foot: | 2.50 |
| Production: | Irrigated | Seed Per Bag*: | 233333 |

*Average of all Varieties and Technologies

| | | | | |
|------------------------|-----------------|-------------------|------------------|-----------------|
| EXPECTED INCOME | Lbs/Acre | Avg Price* | Income/Ac | Cents/Lb |
| | 1100 | 0.850 | \$935.00 | 85.00 |

*Prices highly variable. Average price received depends on market trends and marketing decisions.

| VARIABLE COST* | Unit | No. Units | Price/Unit | Cost/Acre | Cents/Lb |
|---|-------------|------------------|-------------------|------------------|-----------------|
| Land Rent | Acre | 1 | 0.00 | 0.00 | 0.00 |
| Crop Insurance | Acre | 1 | 16.50 | 16.50 | 1.50 |
| BWEP | Bale | 2.22 | 0.65 | 1.44 | 0.13 |
| Seed, Tech Fees, and Treatments (Based on # Seed/Bag) | | | | | |
| Seeds Per Acre | 36,300 | Bag | 0.156 | 500.00 | 77.79 |
| Lime- Custom Spread | | Ton | 0.33 | 32.00 | 10.56 |
| Fertilizers | | | | | |
| Nitrogen | | Lbs | 90 | 0.60 | 54.00 |
| Phosphate (P2O5) | | Lbs | 70 | 0.45 | 31.50 |
| Potash (K2O) | | Lbs | 70 | 0.50 | 35.00 |
| Chicken Litter- Custom Spread | | Tons | 0 | 40.00 | 0.00 |
| Boron | | Lbs | 0.5 | 6.25 | 3.13 |
| Others | | Acre | 1 | 0.00 | 0.00 |
| Weed Control** | | | | | |
| Pre-Plant Broadcast or PPI | | Acre | 1 | 0.00 | 0.00 |
| At Planting or Pre-Emergence | | Acre | 1 | 16.35 | 16.35 |
| Post-Emergence OTT | | Acre | 1 | 16.20 | 16.20 |
| Post-Emergence Directed or Hood | | Acre | 1 | 10.20 | 10.20 |
| Hand Weeding | | Acre | 1 | 0.00 | 0.00 |
| Insect Control | | | | | |
| In-Furrow | | Lbs | 3.5 | 3.15 | 11.03 |
| Spray- Worms | | Appl | 0 | 0.00 | 0.00 |
| Spray- Stink Bugs, Other Pests | | Appl | 2 | 4.60 | 9.20 |
| Scouting | | Acre | 1 | 10.00 | 10.00 |
| Nematicide | | Acre | 1 | 0.00 | 0.00 |
| PGR | | Ounces | 24 | 0.115 | 2.76 |
| Boll Opener and Defoliant | | Acre | 1 | 15.50 | 15.50 |
| Custom Applications | | | | | |
| Insecticides | | Appl | 0 | 0.00 | 0.00 |
| Herbicides | | Appl | 0 | 0.00 | 0.00 |
| PGR | | Appl | 0 | 0.00 | 0.00 |
| Defoliation | | Appl | 0 | 0.00 | 0.00 |
| Machinery and Equipment | | | | | |
| Fuel and Lube | | Gal | 12.7 | 2.85 | 36.11 |
| Repairs and Maintenance | | Acre | 1 | 22.47 | 22.47 |
| Labor | LT/MT | Hrs | 2.35 | 11.25 | 26.45 |
| Irrigation | | Appl | 8 | 10.00 | 80.00 |
| Custom Picking | | Acre | 1 | 0.00 | 0.00 |
| Interest on Operating | Months | \$486.18 | 0.50 | 6.50% | 15.80 |
| Ginning and Warehousing | | | | | |
| Ginning | | Lbs | 1100 | 0.080 | 88.00 |
| Storage and Warehousing | | Bale | 2.22 | 10.50 | 23.33 |
| Promotions, Boards, Classing | | Bale | 2.22 | 6.67 | 14.83 |
| Cottonseed | % Gin T/O | Ton | 0.75 | 130.00 | -97.84 |

| | | |
|---------------------------------------|-----------------|--------------|
| TOTAL VARIABLE COSTS | \$530.30 | 48.21 |
| NET RETURN ABOVE VARIABLE COST | \$404.70 | 36.79 |

| | | | | | |
|----------------------|----------------|----------|--------|--------|-------|
| Tractors and Sprayer | Acre | 1 | 33.30 | 33.30 | 3.03 |
| Equipment/Implements | Acre | 1 | 16.11 | 16.11 | 1.46 |
| Picker/BB/MB | Acre | 1 | 49.54 | 49.54 | 4.50 |
| Irrigation | Acre | 1 | 110.00 | 110.00 | 10.00 |
| Owned Land Charge | Acre | 1 | 0.00 | 0.00 | 0.00 |
| Misc Overhead | % of Var Costs | \$530.30 | 5.0% | 26.52 | 2.41 |
| Management | % of Var Costs | \$530.30 | 5.0% | 26.52 | 2.41 |

| | | |
|--------------------------|-----------------|--------------|
| TOTAL FIXED COSTS | \$261.98 | 23.82 |
| TOTAL COST | \$792.28 | 72.03 |
| NET RETURN | \$142.72 | 12.97 |

*Fertilizer and fuel prices as of December 2010 and projected 2011. All costs subject to change.

**Herbicide programs highly variable. Cost assumes managing Palmer Amaranth glyphosate resistance. Hand weeding may be needed.

PER ACRE NET RETURN* ABOVE VARIABLE COST AT VARIOUS PRICES, YIELD, and RENT

| | 0.750 | | | 0.850 | | | 0.950 | | |
|------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1000 | 1100 | 1200 | 1000 | 1100 | 1200 | 1000 | 1100 | 1200 |
| 120 | 98.51 | 170.80 | 243.09 | 198.51 | 280.80 | 363.09 | 298.51 | 390.80 | 483.09 |
| 140 | 77.86 | 150.15 | 222.44 | 177.86 | 260.15 | 342.44 | 277.86 | 370.15 | 462.44 |
| 160 | 57.21 | 129.50 | 201.79 | 157.21 | 239.50 | 321.79 | 257.21 | 349.50 | 441.79 |
| 180 | 36.56 | 108.85 | 181.14 | 136.56 | 218.85 | 301.14 | 236.56 | 328.85 | 421.14 |
| 200 | 15.91 | 88.20 | 160.49 | 115.91 | 198.20 | 280.49 | 215.91 | 308.20 | 400.49 |

* Net return excludes Direct Payment on Base Payment Acres. No Countercyclical Payment expected.

| Acres of This Crop | | 900 | | | | | | | | | | |
|-----------------------------|----------------------|----------|--------------|-------|---------------------------------|---------|--------------|---------|-------------------------|--------------|--------------|--------------|
| New Price | Fixed Costs Per Year | | | | Fixed Costs Share For This Crop | | | | Repairs and Maintenance | | | |
| | % FC | Total FC | Hrs Use | FC/Hr | % Use | Hrs Use | Hrs/Ac | FC/Acre | Est RM | This Crop | Per Acre | |
| Tractors | | | | | | | | | | | | |
| 200 HP | 140000 | 12.5 | 17500 | 400 | 43.75 | 50 | 200 | 0.22 | 9.72 | 4200 | 2100 | 2.33 |
| 165 HP | 123000 | 12.5 | 15375 | 600 | 25.63 | 65 | 390 | 0.43 | 11.10 | 3700 | 2405 | 2.67 |
| 100 HP | 62500 | 12.5 | 7813 | 500 | 15.63 | 30 | 150 | 0.17 | 2.60 | 1900 | 570 | 0.63 |
| Hi-clearance sprayer | | | | | | | | | | | | |
| | 122000 | 13.0 | 15860 | 210 | 75.52 | 56 | 118 | 0.13 | 9.87 | 3700 | 2072 | 2.30 |
| Picker | | | | | | | | | | | | |
| | 320000 | 13.0 | 41600 | 250 | 166.40 | 100 | 250 | 0.28 | 46.22 | 9600 | 9600 | 10.67 |
| Totals | | | 98148 | | | | 71569 | | 79.52 | 23100 | 16747 | 18.61 |

| Fuel Cost Per Gallon | | 2.85 | | | | | | | | | | | | | |
|---------------------------------|----------------------|---------|----------|----------------------|------|----------|-----------------------|--------------|-------------------------|-------------|-------------|---------------|--------------|---------|--|
| Job or Implement- Size | Total Farm Acres/Yr* | HP Used | Acres/Hr | Fixed Costs Per Year | | | Fixed Costs This Crop | | Repairs and Maintenance | | | Fuel and Lube | | | |
| | | | | New Price | % FC | Total FC | % Use | FC/Acre | Est RM | This Crop | Per Acre | Hrs/Ac | Gal/Hr | Cost/Ac | |
| Disk- 30ft | 3600 | 200 | 17.0 | 42000 | 13.0 | 5460 | 50 | 3.03 | 1000 | 500 | 0.56 | 0.059 | 8.8 | 1.70 | |
| Disk- 30ft | 3600 | 200 | 17.0 | 42000 | 13.0 | 5460 | 50 | 3.03 | 1000 | 500 | 0.56 | 0.059 | 8.8 | 1.70 | |
| Rip and bed- 8-row | 1800 | 200 | 11.0 | 30000 | 13.0 | 3900 | 50 | 2.17 | 750 | 375 | 0.42 | 0.091 | 8.8 | 2.62 | |
| Plant- 8row w/in-furrow and PRE | 1800 | 165 | 11.0 | 32500 | 13.0 | 4225 | 50 | 2.35 | 900 | 450 | 0.50 | 0.091 | 7.3 | 2.16 | |
| Spray 60 ft- POST OTT | 8000 | 150 | 38.0 | | | 0 | | 0.00 | | 0 | 0.00 | 0.026 | 6.6 | 0.57 | |
| Nitrogen side dress | 1200 | 165 | 12.0 | 16000 | 13.0 | 2080 | 75 | 1.73 | 450 | 338 | 0.38 | 0.083 | 7.3 | 1.98 | |
| Spray 60 ft- pgr | 8000 | 150 | 38.0 | | | 0 | | 0.00 | | 0 | 0.00 | 0.026 | 6.6 | 0.57 | |
| Spray- POST Directed 8-row | 1200 | 165 | 12.0 | 12000 | 13.0 | 1560 | 75 | 1.30 | 350 | 263 | 0.29 | 0.083 | 7.3 | 1.98 | |
| Spray 60 ft- insecticide/pgr | 8000 | 150 | 38.0 | | | 0 | | 0.00 | | 0 | 0.00 | 0.026 | 6.6 | 0.57 | |
| Spray 60 ft- insecticide | 8000 | 150 | 38.0 | | | 0 | | 0.00 | | 0 | 0.00 | 0.026 | 6.6 | 0.57 | |
| Spray 60 ft- defoliate | 8000 | 150 | 38.0 | | | 0 | | 0.00 | | 0 | 0.00 | 0.026 | 6.6 | 0.57 | |
| | | | | | | 0 | | 0.00 | | 0 | 0.00 | 0.00 | 0.0 | | |
| | | | | | | 0 | | 0.00 | | 0 | 0.00 | 0.00 | 0.0 | | |
| | | | | | | 0 | | 0.00 | | 0 | 0.00 | 0.00 | 0.0 | | |
| Picker- 4 row | 900 | 300 | 3.55 | | | 0 | | 0.00 | | 0 | 0.00 | 0.282 | 13.2 | 12.19 | |
| Boll Buggy | 900 | 165 | 5.33 | 23000 | 13.0 | 2990 | 100 | 3.32 | 600 | 600 | 0.67 | 0.188 | 7.3 | 4.46 | |
| Module Builder | 900 | 100 | 5.33 | | | 0 | | 0.00 | | 0 | 0.00 | 0.188 | 4.4 | 2.71 | |
| Mow/shred stalks- 20 ft | 1200 | 165 | 13.5 | 23000 | 13.0 | 2990 | 75 | 2.49 | 600 | 450 | 0.50 | 0.074 | 7.3 | 1.76 | |
| | | | | | | 0 | | 0 | | 0 | 0.00 | 0.00 | 0.0 | | |
| Totals | | | | | | | 17485 | 19.43 | 5650 | 3475 | 3.86 | 1.33 | 36.11 | | |

* All acres for the implement including multiple trips over the field. Disking 800 acres 2 times would be 1,600 acres total. Spraying 900 acres 5 times would be 4,500 acres.

Developed by Don Shurley and Amanda Smith, Department of Agricultural and Applied Economics, University of Georgia.

December 2010

ACKNOWLEDGEMENT

Special thanks to County Extension Agents, UGA Cotton Team, and industry representatives for providing data, input, and review/suggestions.

