

**Irrigated Corn
South Georgia, 2014**

Estimated Costs and Returns

Expected Yield: **200** bushel Your Yield _____

Variable Costs	Unit	Amount	\$/Unit	Cost/Acre	\$/bushel	Your Farm
Seed	thousand	32	\$ 2.95	\$ 94.40	\$ 0.47	_____
Lime	ton	0.5	\$ 39.00	\$ 19.50	\$ 0.10	_____
Fertilizer						
<i>Nitrogen</i>	pounds	240	\$ 0.55	\$ 132.00	\$ 0.66	_____
<i>Phosphate</i>	pounds	100	\$ 0.40	\$ 40.00	\$ 0.20	_____
<i>Potash</i>	pounds	200	\$ 0.45	\$ 90.00	\$ 0.45	_____
Weed Control	acre	1	\$ 14.20	\$ 14.20	\$ 0.07	_____
Insect Control	acre	1	\$ -	\$ -	\$ -	_____
Disease Control	acre	1	\$ 15.30	\$ 15.30	\$ 0.08	_____
Preharvest Machinery						
<i>Fuel</i>	gallon	4.7	\$ 3.60	\$ 16.99	\$ 0.08	_____
<i>Repairs and Maintenance</i>	acre	1	\$ 10.55	\$ 10.55	\$ 0.05	_____
Harvest Machinery						
<i>Fuel</i>	gallon	2.5	\$ 3.60	\$ 9.11	\$ 0.05	_____
<i>Repairs and Maintenance</i>	acre	1	\$ 6.94	\$ 6.94	\$ 0.03	_____
Labor	hours	1.0	\$ 12.00	\$ 12.11	\$ 0.06	_____
Irrigation*	applications	8	\$ 11.75	\$ 94.00	\$ 0.47	_____
Crop Insurance	acre	1	\$ 11.00	\$ 11.00	\$ 0.06	_____
Land Rent	acre	1	\$ -	\$ -	\$ -	_____
Interest on Operating Capital	percent	\$ 283.05	6.5%	\$ 18.40	\$ 0.09	_____
Drying - 8 Points	bushel	220	\$ 0.28	\$ 61.46	\$ 0.31	_____
Total Variable Costs:				\$ 645.96	\$ 3.23	
Fixed Costs						
Machinery Depreciation, Taxes, Insurance and Housing						
<i>Preharvest Machinery</i>	acre	1	\$ 29.01	\$ 29.01	\$ 0.15	_____
<i>Harvest Machinery</i>	acre	1	\$ 33.10	\$ 33.10	\$ 0.17	_____
<i>Irrigation</i>	acre	1	\$ 120.00	\$ 120.00	\$ 0.60	_____
General Overhead	% of VC	\$ 645.96	5%	\$ 32.30	\$ 0.16	_____
Management	% of VC	\$ 645.96	5%	\$ 32.30	\$ 0.16	_____
Owned Land Cost, Taxes, Cash Payment, etc.	acre	1	\$ -	\$ -	\$ -	_____
Other _____	acre	1	\$ -	\$ -	\$ -	_____
Total Fixed Costs				\$ 246.72	\$ 1.23	
Total Costs Excluding Land				\$ 892.68	\$ 4.46	
Your Profit Goal				\$ _____	/bushel	
Price Needed for Profit				\$ _____	/bushel	

*Average of diesel and electric irrigation application costs. Electric is estimated at \$7/appl and diesel is estimated at \$16.50/appl when diesel costs \$3.60/gal.

Developed by Nathan Smith and Amanda Smith.

Sensitivity Analysis of Irrigated Corn

Net Returns Above Variable Costs Per Acre					
Varying Prices and Yields (bushel)					
Price \ bushel/Acre	-25%	-10%	Expected	+10%	+25%
	150	180	200	220	250
\$3.50	-\$120.96	-\$15.96	\$54.04	\$124.04	\$229.04
\$4.00	-\$45.96	\$74.04	\$154.04	\$234.04	\$354.04
\$4.50	\$29.04	\$164.04	\$254.04	\$344.04	\$479.04
\$5.00	\$104.04	\$254.04	\$354.04	\$454.04	\$604.04
\$5.50	\$179.04	\$344.04	\$454.04	\$564.04	\$729.04

Estimated Labor and Machinery Costs per Acre Preharvest Operations

Operation	Acres/Hour	Number of Times Over	Labor Use** (hrs/ac)	Fuel Use (gal/ac)	Repairs (\$/ac)	Fixed Costs (\$/ac)
Heavy Disk 27' with Tractor (180-199 hp) MFWD 190	13.2	2	0.19	1.48	\$ 3.42	\$ 9.95
Disk Harrow 32' with Tractor (180-199 hp) MFWD 190	16.3	1	0.08	0.60	\$ 1.51	\$ 4.38
Bed-Disk (Hipper) 6R-36 with Tractor (180-199 hp) MFWD 190	9.6	1	0.13	1.02	\$ 1.50	\$ 4.63
Plant - Rigid 6R-36 with Tractor (120-139 hp) 2WD 130	9.5	1	0.13	0.70	\$ 1.79	\$ 5.00
Fert Appl (Liquid) 6R-36 with Tractor (120-139 hp) 2WD 130	9.2	1	0.14	0.73	\$ 1.96	\$ 4.17
Spray (Broadcast) 60' with Tractor (120-139 hp) 2WD 130	35.5	1	0.04	0.19	\$ 0.37	\$ 0.88
Total Preharvest Values			0.70	4.72	\$ 10.55	\$ 29.01

Harvest Operations

Operation	Acres/Hour	Number of Times Over	Labor Use** (hrs/ac)	Fuel Use (gal/ac)	Repairs (\$/ac)	Fixed Costs (\$/ac)
Header - Corn 6R-36 with Combine (200-249 hp) 240 hp	6.5	1	0.19	1.90	\$ 5.63	\$ 29.56
Grain Cart Corn 500 bu with Tractor (120-139 hp) 2WD 130	10.6	1	0.12	0.63	\$ 1.31	\$ 3.54
Total Harvest Values			0.31	2.53	\$ 6.94	\$ 33.10

** Includes unallocated labor factor of 0.25. Unallocated labor factor is percentage allowance for additional labor required to move equipment and hook/unhook implements, etc.

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