

**Irrigated Corn, Strip Tillage
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	_____
Cover Crop Seed	bushel	1.5	\$ 15.00	\$ 22.50	\$ 0.11	_____
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	\$ 18.20	\$ 18.20	\$ 0.09	_____
Insect Control	acre	1	\$ -	\$ -	\$ -	_____
Disease Control	acre	1	\$ 15.30	\$ 15.30	\$ 0.08	_____
Preharvest Machinery *						
<i>Fuel</i>	gallon	3.4	\$ 3.60	\$ 12.29	\$ 0.06	_____
<i>Repairs and Maintenance</i>	acre	1	\$ 7.91	\$ 7.91	\$ 0.04	_____
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	0.8	\$ 12.00	\$ 9.94	\$ 0.05	_____
Irrigation**	applications	7	\$ 11.75	\$ 82.25	\$ 0.41	_____
Crop Insurance	acre	1	\$ 11.00	\$ 11.00	\$ 0.06	_____
Land Rent	acre	1	\$ -	\$ -	\$ -	_____
Interest on Operating Capital	percent	\$ 285.67	6.5%	\$ 18.57	\$ 0.09	_____
Drying - 8 Points	bushel	220	\$ 0.28	\$ 61.46	\$ 0.31	_____
Total Variable Costs:				\$ 651.37	\$ 3.26	
Fixed Costs						
Machinery Depreciation, Taxes, Insurance and Housing						
<i>Preharvest Machinery *</i>	acre	1	\$ 21.30	\$ 21.30	\$ 0.11	_____
<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	\$ 651.37	5%	\$ 32.57	\$ 0.16	_____
Management	% of VC	\$ 651.37	5%	\$ 32.57	\$ 0.16	_____
Owned Land Cost, Taxes, Cash Payment, etc.	acre	1	\$ -	\$ -	\$ -	_____
Other _____	acre	1	\$ -	\$ -	\$ -	_____
Total Fixed Costs				\$ 239.54	\$ 1.20	
Total Costs Excluding Land				\$ 890.91	\$ 4.45	
Your Profit Goal				\$ _____	/bushel	
Price Needed for Profit				\$ _____	/bushel	

* Rip, strip and plant in one pass. Performing rip, strip and plant as separate operations increases preharvest fuel use by 0.6 gal (\$2.15/ac), labor costs by \$0.80/ac, and repairs by \$0.80/ac. Fixed costs would increase by \$2.30/ac.

** 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.

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Developed by Amanda Smith and Nathan Smith.

Sensitivity Analysis of Irrigated Corn, Strip Tillage

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	-\$126.37	-\$21.37	\$48.63	\$118.63	\$223.63
\$4.00	-\$51.37	\$68.63	\$148.63	\$228.63	\$348.63
\$4.50	\$23.63	\$158.63	\$248.63	\$338.63	\$473.63
\$5.00	\$98.63	\$248.63	\$348.63	\$448.63	\$598.63
\$5.50	\$173.63	\$338.63	\$448.63	\$558.63	\$723.63

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)
Spin Spreader 5 ton with Tractor (120-139 hp) 2WD 130	23.8	1	0.05	0.28	\$ 0.60	\$ 1.71
Disk Harrow 32' with Tractor (180-199 hp) MFWD 190	16.3	1	0.08	0.60	\$ 1.51	\$ 4.38
Spray (Broadcast) 60' with Tractor (120-139 hp) 2WD 130	35.5	1	0.04	0.19	\$ 0.37	\$ 0.88
ST Plant Rigid 6R-36 with Tractor (180-199 hp) MFWD 190	6.9	1	0.18	1.42	\$ 3.10	\$ 9.28
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			0.52	3.41	\$ 7.91	\$ 21.30

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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