

**Irrigated Corn, Strip Tillage
South Georgia, 2013**

Estimated Costs and Returns

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

Variable Costs	Unit	Amount	\$/Unit	Cost/Acre	\$/bushel	Your Farm
Seed	thousand	32	\$ 2.90	\$ 92.80	\$ 0.46	_____
Cover Crop Seed	bushel	1.5	\$ 15.00	\$ 22.50	\$ 0.11	_____
Lime	ton	0.5	\$ 42.00	\$ 21.00	\$ 0.11	_____
Fertilizer						
<i>Nitrogen</i>	pounds	240	\$ 0.70	\$ 168.00	\$ 0.84	_____
<i>Phosphate</i>	pounds	100	\$ 0.55	\$ 55.00	\$ 0.28	_____
<i>Potash</i>	pounds	200	\$ 0.50	\$ 100.00	\$ 0.50	_____
Weed Control	acre	1	\$ 18.50	\$ 18.50	\$ 0.09	_____
Insect Control	acre	1	\$ -	\$ -	\$ -	_____
Disease Control	acre	1	\$ -	\$ -	\$ -	_____
Preharvest Machinery *						
<i>Fuel</i>	gallon	3.4	\$ 3.75	\$ 12.80	\$ 0.06	_____
<i>Repairs and Maintenance</i>	acre	1	\$ 7.74	\$ 7.74	\$ 0.04	_____
Harvest Machinery						
<i>Fuel</i>	gallon	2.5	\$ 3.75	\$ 9.49	\$ 0.05	_____
<i>Repairs and Maintenance</i>	acre	1	\$ 6.77	\$ 6.77	\$ 0.03	_____
Labor	hours	0.8	\$ 12.00	\$ 9.94	\$ 0.05	_____
Irrigation**	applications	7	\$ 12.13	\$ 84.88	\$ 0.42	_____
Crop Insurance	acre	1	\$ 20.00	\$ 20.00	\$ 0.10	_____
Land Rent	acre	1	\$ -	\$ -	\$ -	_____
Interest on Operating Capital	percent	\$ 314.71	6.5%	\$ 20.46	\$ 0.10	_____
Drying - 8 Points	bushel	220	\$ 0.28	\$ 61.46	\$ 0.31	_____
Total Variable Costs:				\$ 711.33	\$ 3.56	
Fixed Costs						
Machinery Depreciation, Taxes, Insurance and Housing						
<i>Preharvest Machinery *</i>	acre	1	\$ 20.83	\$ 20.83	\$ 0.10	_____
<i>Harvest Machinery</i>	acre	1	\$ 32.22	\$ 32.22	\$ 0.16	_____
<i>Irrigation</i>	acre	1	\$ 125.00	\$ 125.00	\$ 0.63	_____
General Overhead	% of VC	\$ 711.33	5%	\$ 35.57	\$ 0.18	_____
Management	% of VC	\$ 711.33	5%	\$ 35.57	\$ 0.18	_____
Owned Land Cost, Taxes, Cash Payment, etc.	acre	1	\$ -	\$ -	\$ -	_____
Other _____	acre	1	\$ -	\$ -	\$ -	_____
Total Fixed Costs				\$ 249.18	\$ 1.25	
Total Costs Excluding Land				\$ 960.51	\$ 4.80	
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 (\$2.13/ac), labor costs by \$0.77/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 \$17.25/appl when diesel costs \$3.75/gal.

Developed by Amanda Smith and Nathan Smith. Data may be modified by the user to more closely reflect their operation. UGA estimates are available online at <http://www.ces.uga.edu/Agriculture/agecon/agecon.html>.

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
\$5.00	\$38.67	\$188.67	\$288.67	\$388.67	\$538.67
\$5.50	\$113.67	\$278.67	\$388.67	\$498.67	\$663.67
\$6.00	\$188.67	\$368.67	\$488.67	\$608.67	\$788.67
\$6.50	\$263.67	\$458.67	\$588.67	\$718.67	\$913.67
\$7.00	\$338.67	\$548.67	\$688.67	\$828.67	\$1,038.67

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	\$ 0.59	\$ 1.67
Disk Harrow 32' with Tractor (180-199 hp) MFWD 190	16.3	1	0.08	0.60	\$ 1.48	\$ 4.29
Spray (Broadcast) 60' with Tractor (120-139 hp) 2WD 130	35.5	1	0.04	0.19	\$ 0.36	\$ 0.86
ST Plant Rigid 6R-36 with Tractor (180-199 hp) MFWD 190	6.9	1	0.18	1.42	\$ 3.03	\$ 9.07
Fert Appl (Liquid) 6R-36 with Tractor (120-139 hp) 2WD 130	9.2	1	0.14	0.73	\$ 1.92	\$ 4.08
Spray (Broadcast) 60' with Tractor (120-139 hp) 2WD 130	35.5	1	0.04	0.19	\$ 0.36	\$ 0.86
Total Preharvest Values			0.52	3.41	\$ 7.74	\$ 20.83

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	\$ 5.49	\$ 28.77
Grain Cart Corn 500 bu with Tractor (120-139 hp) 2WD 130	10.6	1	0.12	0.63	\$ 1.28	\$ 3.46
Total Harvest Values			0.31	2.53	\$ 6.77	\$ 32.22

*** 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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