

**Irrigated Corn  
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	_____
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	\$ 14.80	\$ 14.80	\$ 0.07	_____
Insect Control	acre	1	\$ -	\$ -	\$ -	_____
Disease Control	acre	1	\$ -	\$ -	\$ -	_____
Preharvest Machinery						
<i>Fuel</i>	gallon	4.7	\$ 3.75	\$ 17.70	\$ 0.09	_____
<i>Repairs and Maintenance</i>	acre	1	\$ 10.32	\$ 10.32	\$ 0.05	_____
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	1.0	\$ 12.00	\$ 12.11	\$ 0.06	_____
Irrigation*	applications	8	\$ 12.13	\$ 97.00	\$ 0.49	_____
Crop Insurance	acre	1	\$ 20.00	\$ 20.00	\$ 0.10	_____
Land Rent	acre	1	\$ -	\$ -	\$ -	_____
Interest on Operating Capital	percent	\$ 312.49	6.5%	\$ 20.31	\$ 0.10	_____
Drying - 8 Points	bushel	220	\$ 0.28	\$ 61.46	\$ 0.31	_____
<b>Total Variable Costs:</b>				<b>\$ 706.76</b>	<b>\$ 3.53</b>	
<b>Fixed Costs</b>						
Machinery Depreciation, Taxes, Insurance and Housing						
<i>Preharvest Machinery</i>	acre	1	\$ 28.36	\$ 28.36	\$ 0.14	_____
<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	\$ 706.76	5%	\$ 35.34	\$ 0.18	_____
Management	% of VC	\$ 706.76	5%	\$ 35.34	\$ 0.18	_____
Owned Land Cost, Taxes, Cash Payment, etc.	acre	1	\$ -	\$ -	\$ -	_____
Other _____	acre	1	\$ -	\$ -	\$ -	_____
<b>Total Fixed Costs</b>				<b>\$ 256.26</b>	<b>\$ 1.28</b>	
<b>Total Costs Excluding Land</b>				<b>\$ 963.02</b>	<b>\$ 4.82</b>	
<b>Your Profit Goal</b>				\$ _____	/bushel	
<b>Price Needed for Profit</b>				\$ _____	/bushel	

\*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.

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Developed by Nathan Smith and Amanda 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

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	\$43.24	\$193.24	\$293.24	\$393.24	\$543.24
\$5.50	\$118.24	\$283.24	\$393.24	\$503.24	\$668.24
\$6.00	\$193.24	\$373.24	\$493.24	\$613.24	\$793.24
\$6.50	\$268.24	\$463.24	\$593.24	\$723.24	\$918.24
\$7.00	\$343.24	\$553.24	\$693.24	\$833.24	\$1,043.24

### 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	\$ 3.35	\$ 9.73
Disk Harrow 32' with Tractor (180-199 hp) MFWD 190	16.3	1	0.08	0.60	\$ 1.48	\$ 4.29
Bed-Disk (Hipper) 6R-36 with Tractor (180-199 hp) MFWD 190	9.6	1	0.13	1.02	\$ 1.46	\$ 4.51
Plant - Rigid 6R-36 with Tractor (120-139 hp) 2WD 130	9.5	1	0.13	0.70	\$ 1.75	\$ 4.90
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
<b>Total Preharvest Values</b>			<b>0.70</b>	<b>4.72</b>	<b>\$ 10.32</b>	<b>\$ 28.36</b>

### 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
<b>Total Harvest Values</b>			<b>0.31</b>	<b>2.53</b>	<b>\$ 6.77</b>	<b>\$ 32.22</b>

\*\* 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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