Irrigated Corn, Strip Tillage
South Georgia, 2020

Estimated Costs and Returns

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

Variable Costs	Unit	Amount	$/Unit	Cost/Acre	$/bushel	Your Farm
Treated Seed	thousand	32	$ 3.65	$ 116.80	$ 0.58	_____
Cover Crop Seed	bushel	1.5	$ 17.00	$ 25.50	$ 0.13	_____
Lime	ton	0.5	$ 45.00	$ 22.50	$ 0.11	_____
Fertilizer						
Nitrogen	pounds	240	$ 0.50	$ 120.00	$ 0.60	_____
Phosphate	pounds	100	$ 0.40	$ 40.00	$ 0.20	_____
Potash	pounds	200	$ 0.35	$ 70.00	$ 0.35	_____
Weed Control	acre	1	$ 19.00	$ 19.00	$ 0.10	_____
Insect Control	acre	1	$ 9.50	$ 9.50	$ 0.05	_____
Disease Control	acre	1	$ 19.45	$ 19.45	$ 0.10	_____
Preharvest Machinery *						
Fuel	gallon	3.6	$ 2.50	$ 9.00	$ 0.05	_____
Repairs and Maintenance	acre	1	$ 9.59	$ 9.59	$ 0.05	_____
Harvest Machinery						
Fuel	gallon	2.5	$ 2.50	$ 6.33	$ 0.03	_____
Repairs and Maintenance	acre	1	$ 8.43	$ 8.43	$ 0.04	_____
Labor	hours	0.9	$ 13.50	$ 11.66	$ 0.06	_____
Irrigation**	applications	7	$ 8.65	$ 60.55	$ 0.30	_____
Crop Insurance	acre	1	$ 14.00	$ 14.00	$ 0.07	_____
Land Rent	acre	1	$ -	$ -	$ -	_____
Interest on Operating Capital	percent	$ 281.16	6.0%	$ 16.87	$ 0.08	_____
Drying - 8 Points	bushel	220	$ 0.28	$ 61.46	$ 0.31	_____
Total Variable Costs:				**$ 640.64**	**$ 3.20**	

Fixed Costs	Unit	Amount	$/Unit	Cost/Acre	$/bushel	Your Farm
Machinery Depreciation, Taxes, Insurance and Housing						
Preharvest Machinery *	acre	1	$ 25.57	$ 25.57	$ 0.13	_____
Harvest Machinery	acre	1	$ 41.04	$ 41.04	$ 0.21	_____
Irrigation	acre	1	$ 130.00	$ 130.00	$ 0.65	_____
General Overhead	% of VC	$ 640.64	5%	$ 32.03	$ 0.16	_____
Management	% of VC	$ 640.64	5%	$ 32.03	$ 0.16	_____
Owned Land Cost, Taxes, Cash Payment, etc.	acre	1	$ -	$ -	$ -	_____
Other _____	acre	1	$ -	$ -	$ -	_____
Total Fixed Costs				**$ 260.67**	**$ 1.30**	

Total Costs Excluding Land				**$ 901.31**	**$ 4.51**	
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 ($1.35/ac), labor costs by $0.85/ac, and repairs by $0.90/ac. Fixed costs would increase by $2.40/ac.

**Average of diesel and electric irrigation application costs. Electric is estimated at $7/appl and diesel is estimated at $12.50/appl when diesel costs $2.50/gal.

Developed by Amanda Smith and Adam Rabinowitz.

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Sensitivity Analysis of Irrigated Corn, Strip Tillage

Net Returns Above Variable Costs Per Acre
Varying Prices and Yields (bushel)

Price \ bushel/Acre	-25% 150	-10% 180	Expected 200	+10% 220	+25% 250
$3.50	-$115.64	-$10.64	$59.36	$129.36	$234.36
$3.75	-$78.14	$34.36	$109.36	$184.36	$296.86
$4.00	-$40.64	$79.36	$159.36	$239.36	$359.36
$4.25	-$3.14	$124.36	$209.36	$294.36	$421.86
$4.50	$34.36	$169.36	$259.36	$349.36	$484.36

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	$ 0.64	$ 1.81
Disk Harrow 32' with Tractor (180-199 hp) MFWD 190	16.3	1	0.08	0.60	$ 1.84	$ 5.35
Spray (Broadcast) 60' with Tractor (120-139 hp) 2WD 130	35.5	1	0.04	0.19	$ 0.43	$ 0.99
ST Plant Rigid 6R-36 with Tractor (180-199 hp) MFWD 190	6.9	1	0.18	1.42	$ 3.63	$ 10.84
Fert Appl (Liquid) 6R-36 with Tractor (120-139 hp) 2WD 130	9.2	1	0.14	0.73	$ 2.20	$ 4.60
Spray (Broadcast) 60' with Tractor (120-139 hp) 2WD 130	35.5	2	0.07	0.38	$ 0.86	$ 1.98
Total Preharvest Values			0.55	3.60	$ 9.59	$ 25.57

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	$ 7.03	$ 37.27
Grain Cart Corn 500 bu with Tractor (120-139 hp) 2WD 130	10.6	1	0.12	0.63	$ 1.39	$ 3.76
Total Harvest Values			0.31	2.53	$ 8.43	$ 41.04

*** 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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