

Soybean Outlook and Cost Analysis for 2009

Nathan B. Smith and Amanda Smith

Georgia growers planted 430,000 acres of soybeans in 2008, the most acres of soybeans since 1994 when 520,000 acres were planted. This compares to 155,000 acres planted in 2006 when prices were mostly below \$6 per bushel. Beginning in late 2006, soybean futures rallied to \$7 per bushel and then traded from \$7 to \$12 by 2008. Soybean futures peaked just above \$16.50 per bushel at the end of June 2008. Since the peak in price, oil prices plummeted and the bottom fell out of the stock market bringing commodities futures down with them. Soybean futures prices dropped below \$10 per bushel in October of 2008 and ranged between \$8.50 and \$9.50 per bushel in November. Few if any analysts have confidence in projecting price for 2009. So many new factors have come into play so that historical relationships are not as reliable.

USDA is projecting the 2008/09 season average price for soybeans to range between \$9.10 and \$10.60 per bushel. They have lowered their price range due to weakening soybean and export markets. USDA estimates 39.3 bushels for the US and 30 bushels to the acre for Georgia. The US harvested acreage is pegged at 74.4 million acres, up 16% over last year. Total production is estimated at 2.92 billion bushels, up 9% over 2007. Total consumption is projected to be 2.928 billion bushels, 4% less than last year. Basically production will equal consumption for the 2008 crop and leave carryover stocks the same as last year. Thus, a relatively tight situation remains in the soybean complex. Demand, however, has weakened with the slowing global economy and credit concerns. Will prices rally again to the highs of 2008? Not likely, but the relative tightness in soybean supply increases the probability of price rallies back above \$9 per bushel as corn and soybean markets bid for acres. Production concerns during the growing season should provide pricing opportunities for 2009 production later in the year.

The expectation for the 2009 season is for a cost-price squeeze to lower net returns for growers. Commodity prices have dropped significantly from their highs in 2008 and inputs costs have not dropped proportionately. Concerns over high production cost and credit availability for operating capital would favor soybeans in 2009. The net returns relationship between corn and soybeans in the Cornbelt favored soybeans until a recent softening in fertilizer prices making corn more competitive. The cost enterprise analysis for soybeans in late November shows variable cost increases of 36% for non-irrigated soybeans and 28% for irrigated soybeans compared to soybean budgets from late January 2008.

Seed, Fertilizer and Chemicals - Seed cost was projected to increase last year but the total increase due to short seed supply was not reflected in the 2008 budget. Seed prices are expected to increase again in 2009, but will probably remain stable at the retail level. Fertilizer prices have softened from highs made in 2008. Nitrogen and phosphorus are expected to be in the 70 to 80 cent per pound of nutrient range while potassium is expected to increase to 80 cents per pound due to tighter supplies. Lime and gypsum have gone up 40% from last year. Chemical costs in general are on the rise and are reflected in higher herbicide costs.

Cost of Borrowed Funds – The interest rate charged in the budget is dependent upon what lending institutions pay for funds they lend. Most loans are based on the prime rate plus 1 to 2 percent. The prime lending rate has dropped recently and farmers in good financial standing should be able to qualify for a lower rate in 2009 on operating loans, estimated in the budget at 7.5%. Credit availability could be a concern for some growers as lenders will likely tighten limits and look to greater utilization of FSA guaranteed loans.

Fuel and Energy Costs – Energy prices are expected to moderate some from 2008 as oil and fuel prices have dropped back below prices at end of 2007. The 2009 budgeted price is \$2.85 per gallon versus \$3.00 in the January 2008 budget. Given the volatility of 2008, prices could fluctuate as much as 50 percent but are expected not to be as volatile. The irrigated soybean budget charges an average of \$9.55 per acre inch of water reflecting a 50/50 ratio of diesel and electric power sources.

Asian Soybean Rust – In the event of soybean asian rust infection, two or three fungicide applications may be necessary resulting in \$10 to \$30 per acre of additional chemical cost.

Labor and Repairs – An increase in operator labor rates is reflected in the 2009 budget at \$11 per hour. Machinery repairs are increased reflecting higher cost of equipment and parts.

Breakeven Yield and Price – Note the Sensitivity Analysis table on the second page of the budgets. The table shows the return above variable cost with varying yields and prices. At the budgeted yield, non-irrigated soybeans require \$8.20 per bushel to cover variable costs and irrigated soybeans require \$5.84 per bushel to cover variable costs.

SOYBEAN COST ESTIMATES, NON-IRRIGATED
30 BU EXPECTED YIELD

VARIABLE COSTS	2008	2009		
Seed	\$ 35.00	\$ 45.00		
Inoculant		\$ 3.00		
Lime/Gypsum	\$ 13.20	\$ 14.19		
Fertilizer-Custom Appl.	\$ 54.00	\$ 95.55		
Herbicides	\$ 16.59	\$ 22.39		
Insecticides	\$ 5.90	\$ 4.55		
Fungicides	\$ -	\$ -		
Fuel	\$ 18.02	\$ 17.77		
Machinery Repairs	\$ 9.76	\$ 11.31		
Labor	\$ 8.74	\$ 9.48		
Crop Insurance	\$ 9.00	\$ 14.00		
Interest on Operating	\$ 7.93	\$ 8.78		Difference
Total Variable Costs	\$ 178.14	\$ 246.02	\$ 67.88	38%
Total Fixed Costs	\$ 62.26	\$ 71.89	\$ 9.63	15%
TOTAL COSTS	\$ 240.40	\$ 317.91	\$ 77.51	32%

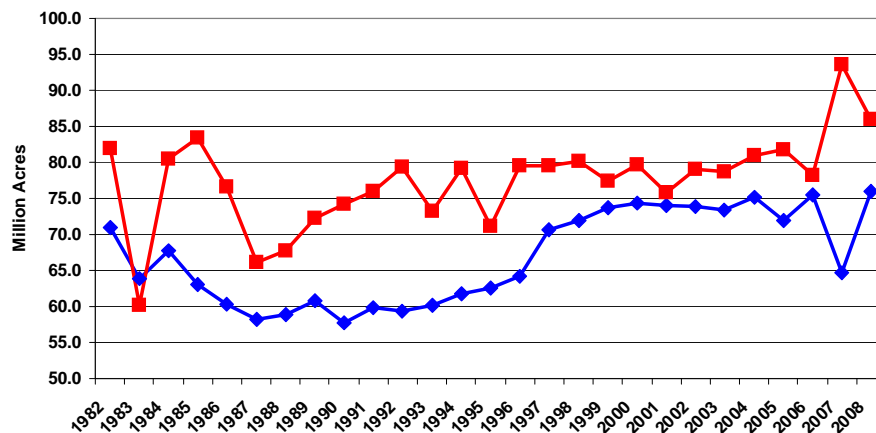
Var. Cost Breakeven Price \$ 5.94 \$ 8.20
Total Cost Breakeven Price \$ 8.01 \$ 10.60

SOYBEAN COST ESTIMATES, IRRIGATED
55 BU EXPECTED YIELD

VARIABLE COSTS	2008	2009		
Seed	\$ 35.00	\$ 45.00		
Lime/Gypsum	\$ 13.20	\$ 14.90		
Inoculant		\$ 3.00		
Fertilizer-Custom Appl.	\$ 54.00	\$ 95.55		
Herbicides	\$ 19.59	\$ 22.39		
Insecticides	\$ 5.90	\$ 4.55		
Fungicides	\$ 21.84	\$ 24.94		
Fuel	\$ 18.02	\$ 17.77		
Machinery Repairs	\$ 9.76	\$ 11.32		
Labor	\$ 8.74	\$ 9.48		
Crop Insurance	\$ 8.50	\$ 14.00		
Irrigation	\$ 49.00	\$ 47.75		
Interest on Operating	\$ 10.35	\$ 10.58		Difference
Total Variable Costs	\$ 253.90	\$ 321.23	\$ 67.33	27%
Total Fixed Costs	\$ 159.21	\$ 176.84	\$ 17.63	11%
TOTAL COSTS	\$ 413.11	\$ 498.07	\$ 84.96	21%

Var. Cost Breakeven Price \$ 4.62 \$ 5.84
Total Cost Breakeven Price \$ 7.51 \$ 9.06

U.S. Corn & Soybean Acres 1980-2008



U.S. Soybean Balance Sheet million bushels (Nov 10, 2008)

	2006/07	2007/08	2008/09	% of Last Yr
Beg Stocks	449	574	205	-64
Production	3,188	2,676	2,921	9
Imports	9	10	7	-30
TOTAL SUPPLY	3,647	3,260	3,133	-4
Crush	1,806	1,801	1,745	-3
Exports	1,118	1,161	1,020	-12
Seed	78	93	90	-3
Residual	70	-1	72	72
TOTAL DISAPPEARANCE	3,078	3,054	2,928	-4
Ending Stocks	574	205	205	0
Season Average Farm Price	6.43	10.10	9.10-10.60	-2.5

**SOYBEANS, NON-IRRIGATED
ROUNDUP READY
SOUTH GEORGIA, 2009**

ESTIMATED COSTS AND RETURNS

Expected Yield **30 Bushels** YIELD: YOUR FARM _____

Variable Costs:	Unit	Number of Units	\$/Unit	Cost/Acre	\$/Bushels	Your Farm
Seed	Bag	1.00	\$ 45.00	\$ 45.00	\$ 1.50	_____
Inoculant	Acre	1.00	\$ 3.00	\$ 3.00	\$ 0.10	_____
Lime	Tons	0.33	\$ 43.00	\$ 14.19	\$ 0.47	_____
Fertilizer						
Nitrogen	Lbs	0.00	\$ 0.82	\$ -	\$ -	_____
Phosphate (P2O5)	Lbs	40.00	\$ 0.74	\$ 29.60	\$ 0.99	_____
Potash (K2O)	Lbs	80.00	\$ 0.80	\$ 64.00	\$ 2.13	_____
Boron	Lbs	0.50	\$ 3.90	\$ 1.95	\$ 0.07	_____
Weed Control	Acre	1.00	\$ 22.39	\$ 22.39	\$ 0.75	_____
Insect Control	Acre	1.00	\$ 4.55	\$ 4.55	\$ 0.15	_____
*Disease Control	Acre	0.00	\$ -	\$ -	\$ -	_____
<i>Machinery: Preharvest</i>						
Fuel	Gallon	3.86	\$ 2.85	\$ 10.99	\$ 0.37	_____
Repairs & Maintenance	Acre	1.00	\$ 7.39	\$ 7.39	\$ 0.25	_____
<i>Machinery: Harvest</i>						
Fuel	Gallon	2.38	\$ 2.85	\$ 6.79	\$ 0.23	_____
Repairs & Maintenance	Acre	1.00	\$ 3.93	\$ 3.93	\$ 0.13	_____
Labor	Hrs	0.86	\$ 11.00	\$ 9.48	\$ 0.32	_____
Crop Insurance	Acre	1.00	\$ 14.00	\$ 14.00	\$ 0.47	_____
Land Rental	Acre	1.00	\$ -	\$ -	\$ -	_____
Interest on Operating capital	Percent	\$ 118.63	7.50%	\$ 8.90	\$ 0.30	_____
Drying - 8 points	Bushel	32.92		\$ -	\$ -	_____
Total Variable Costs				\$ 246.16	\$ 8.21	_____

Fixed Costs:

Machinery: Depreciation, Taxes, Insurance, and Housing						
Preharvest	Acre	1.00	\$ 21.18	\$ 21.18	\$ 0.71	_____
Harvest	Acre	1.00	\$ 25.68	\$ 25.68	\$ 0.86	_____
General Overhead	% of VC	\$ 246.16	5.00%	\$ 12.31	\$ 0.41	_____
Management	% of VC	\$ 246.16	5.00%	\$ 12.31	\$ 0.41	_____
Owned Land Costs; Taxes, Cash Payment, Etc.	Acre	1.00	\$ -	\$ -	\$ -	_____
Other _____		1.00	\$ -	\$ -	\$ -	_____
Total Fixed Costs				\$ 71.47	\$ 2.38	_____

TOTAL COSTS AND PROFIT GOAL

Total Costs Excluding Land	\$ 317.63	\$ 10.59
**** YOUR PROFIT GOAL ****	\$ _____/Bu.	
\$\$-PRICE NEEDED FOR PROFIT-\$\$	\$ _____/Bu.	

* Note: In the case of Asian Soybean Rust infection, add \$10-\$25 for fungicide sprays.

Sensitivity Analysis of SOYBEANS, NON-IRRIGATED

NET RETURNS ABOVE VARIABLE COSTS PER ACRE					
Varying Prices and Yield (Bushels)					
Bu/Acre	-25%	-10%	Average	+10%	+25%
	22.5	27	30	33	37.5
\$7.50	\$ (81.56)	\$ (47.81)	\$ (25.31)	\$ (2.81)	\$ 30.94
\$8.00	\$ (70.31)	\$ (34.31)	\$ (10.31)	\$ 13.69	\$ 49.69
\$8.50	\$ (59.06)	\$ (20.81)	\$ 4.69	\$ 30.19	\$ 68.44
\$9.00	\$ (47.81)	\$ (7.31)	\$ 19.69	\$ 46.69	\$ 87.19
\$9.50	\$ (36.56)	\$ 6.19	\$ 34.69	\$ 63.19	\$ 105.94

ESTIMATED LABOR AND MACHINERY COSTS PER ACRE

PREHARVEST OPERATIONS						
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)
Heavy Disk27' with Tractor (180-199 hp)-MFWD 190	13.214	2.00	0.15	1.48	3.03	8.81
Disk Harrow32' with Tractor (180-199 hp)-MFWD 190	16.291	1.00	0.06	0.60	1.30	3.78
Disk Bed (Hipper)6R-36 with Tractor (180-199 hp)-MFWD 190	19.200	1.00	0.05	0.51	0.87	2.77
Plant - Rigid6R-36 with Tractor (120-139 hp)-2WD 130	9.573	1.00	0.10	0.70	1.43	3.98
Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130	35.455	3.00	0.08	0.57	0.76	1.84
Total Preharvest Fuel, Repairs, Fixed Costs, & Labor			0.454	3.86	\$ 7.39	\$ 21.18

HARVEST OPERATIONS						
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)
Header - Soybean18' Flex with Combine (200-249 hp)240hp	7.047	1.000	0.142	1.75	3.30	22.73
Grain Cart500 bu with Tractor (120-139 hp)-2WD 130	10.642	1.000	0.094	0.63	0.63	2.95
Total Harvest Fuel, Repairs, Fixed Costs, and Labor			0.236	2.38	\$ 3.93	\$ 25.68

**SOYBEANS, STRIP-TILLAGE, NON-IRRIGATED
ROUNDUP READY
SOUTH GEORGIA, 2009**

ESTIMATED COSTS AND RETURNS

Expected Yield **30 Bushels** YIELD: YOUR FARM _____

Variable Costs:	Unit	Number of Units	\$/Unit	Cost/Acre	\$/Bushels	Your Farm
Seed	Bag	1.00	\$ 45.00	\$ 45.00	\$ 1.50	_____
Cover Seed	Bu.	1.50	\$ 11.00	\$ 16.50	\$ 0.55	_____
Inoculant	Acre	1.00	\$ 3.00	\$ 3.00	\$ 0.10	_____
Lime	Tons	0.33	\$ 43.00	\$ 14.19	\$ 0.47	_____
Fertilizer						
Nitrogen	Lbs	0.00	\$ 0.82	\$ -	\$ -	_____
Phosphate (P2O5)	Lbs	40.00	\$ 0.74	\$ 29.60	\$ 0.99	_____
Potash (K2O)	Lbs	80.00	\$ 0.80	\$ 64.00	\$ 2.13	_____
Boron	Lbs	0.50	\$ 3.90	\$ 1.95	\$ 0.07	_____
Weed Control	Acre	1.00	\$ 30.89	\$ 30.89	\$ 1.03	_____
Insect Control	Acre	1.00	\$ 4.55	\$ 4.55	\$ 0.15	_____
Disease Control*	Acre	1.00	\$ -	\$ -	\$ -	_____
<i>Machinery: Preharvest</i>						
Fuel	Gallon	3.06	\$ 2.85	\$ 8.72	\$ 0.29	_____
Repairs & Maintenance	Acre	1.00	\$ 5.62	\$ 5.62	\$ 0.19	_____
<i>Machinery: Harvest</i>						
Fuel	Gallon	2.38	\$ 2.85	\$ 6.79	\$ 0.23	_____
Repairs & Maintenance	Acre	1.00	\$ 3.93	\$ 3.93	\$ 0.13	_____
Labor	Hrs	0.75	\$ 11.00	\$ 8.22	\$ 0.27	_____
Crop Insurance	Acre	1.00	\$ 14.00	\$ 14.00	\$ 0.47	_____
Land Rental	Acre	1.00	\$ -	\$ -	\$ -	_____
Interest on Operating capital	Percent	\$ 128.48	7.50%	\$ 9.64	\$ 0.32	_____
Drying - 8 points	Bushel	32.92	\$ -	\$ -	\$ -	_____
Total Variable Costs				\$ 266.59	\$ 8.89	_____
Fixed Costs:						
<i>Machinery: Depreciation, Taxes, Insurance, and Housing</i>						
Preharvest	Acre	1.00	\$ 16.03	\$ 16.03	\$ 0.53	_____
Harvest	Acre	1.00	\$ 25.68	\$ 25.68	\$ 0.86	_____
General Overhead	% of VC	\$ 266.59	5.00%	\$ 13.33	\$ 0.44	_____
Management	% of VC	\$ 266.59	5.00%	\$ 13.33	\$ 0.44	_____
Owned Land Costs; Taxes, Cash Payment, Etc.	Acre	1.00	\$ -	\$ -	\$ -	_____
Other _____	Acre	1.00	\$ -	\$ -	\$ -	_____
Total Fixed Costs				\$ 68.37	\$ 2.28	_____
TOTAL COSTS AND PROFIT GOAL						
Total Costs Excluding Land				\$ 334.96	\$ 11.17	_____
**** YOUR PROFIT GOAL ****				\$ _____/Bu.		
\$\$-PRICE NEEDED FOR PROFIT-\$\$				\$ _____/Bu.		

* Note: In the case of Asian Soybean Rust infection, add \$10-\$25 for fungicide sprays.

Sensitivity Analysis of SOYBEANS, STRIP-TILLAGE, NON-IRRIGATED

NET RETURNS ABOVE VARIABLE COSTS PER ACRE					
Varying Prices and Yield (Bushels)					
Bu/Acre	-25%	-10%	Average	+10%	+25%
	22.5	27	30	33	37.5
\$7.50	\$ (101.99)	\$ (68.24)	\$ (45.74)	\$ (23.24)	\$ 10.51
\$8.00	\$ (90.74)	\$ (54.74)	\$ (30.74)	\$ (6.74)	\$ 29.26
\$8.50	\$ (79.49)	\$ (41.24)	\$ (15.74)	\$ 9.76	\$ 48.01
\$9.00	\$ (68.24)	\$ (27.74)	\$ (0.74)	\$ 26.26	\$ 66.76
\$9.50	\$ (56.99)	\$ (14.24)	\$ 14.26	\$ 42.76	\$ 85.51

ESTIMATED LABOR AND MACHINERY COSTS PER ACRE

PREHARVEST OPERATIONS						
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)
Spin Spreader5 ton with Tractor (120-139 hp)-2WD 130	23.758	1.00	0.04	0.28	0.50	1.42
Disk Harrow32' with Tractor (180-199 hp)-MFWD 190	16.291	1.00	0.06	0.60	1.30	3.78
Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130	35.455	1.00	0.03	0.19	0.25	0.61
ST Plant-Rigid6R-36 with Tractor (180-199 hp)-MFWD 190	6.873	1.00	0.15	1.42	2.80	8.38
Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130	35.455	3.00	0.08	0.57	0.76	1.84
Total Preharvest Fuel, Repairs, Fixed Costs, & Labor			0.362	3.06	\$ 5.62	\$ 16.03

HARVEST OPERATIONS						
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)
Header - Soybean18' Flex with Combine (200-249 hp)240hp	7.047	1.000	0.142	1.75	\$ 3.30	\$ 22.73
Grain Cart500 bu with Tractor (120-139 hp)-2WD 130	10.642	1.000	0.094	0.63	\$ 0.63	\$ 2.95
					\$ -	
					\$ -	
					\$ -	
					\$ -	
Total Harvest Fuel, Repairs, Fixed Costs, and Labor			0.236	2.38	\$ 3.93	\$ 25.68

**SOYBEANS, IRRIGATED
ROUNDUP READY
SOUTH GEORGIA, 2009**

ESTIMATED COSTS AND RETURNS

Expected Yield per Acre **55 Bushels** YIELD: YOUR FARM _____

Variable Costs:	Unit	Number of Units	\$/Unit	Cost/Acre	\$/Bushels	Your Farm
Seed	Bag	1.00	\$ 45.00	\$ 45.00	\$ 0.82	_____
Inoculant	Acre	1.00	\$ 3.00	\$ 3.00	\$ 0.05	_____
Lime	Tons	0.33	\$ 43.00	\$ 14.19	\$ 0.26	_____
Fertilizer						
Nitrogen	Lbs	0.00	\$ 0.82	-	-	_____
Phosphate (P2O5)	Lbs	40.00	\$ 0.74	\$ 29.60	\$ 0.54	_____
Potash (K2O)	Lbs	80.00	\$ 0.80	\$ 64.00	\$ 1.16	_____
Boron	Lbs	0.50	\$ 3.90	\$ 1.95	\$ 0.04	_____
Weed Control	Acre	1.00	\$ 22.39	\$ 22.39	\$ 0.41	_____
Insect Control	Acre	1.00	\$ 4.55	\$ 4.55	\$ 0.08	_____
Disease Control*	Acre	1.00	\$ 24.94	\$ 24.94	\$ 0.45	_____
<i>Machinery: Preharvest</i>						
Fuel	Gallon	3.86	\$ 2.85	\$ 10.99	\$ 0.20	_____
Repairs & Maintenance	Acre	1.00	\$ 7.39	\$ 7.39	\$ 0.13	_____
<i>Machinery: Harvest</i>						
Fuel	Gallon	2.38	\$ 2.85	\$ 6.79	\$ 0.12	_____
Repairs & Maintenance	Acre	1.00	\$ 3.93	\$ 3.93	\$ 0.07	_____
Irrigation**	Inch	5.00	\$ 9.55	\$ 47.75	\$ 0.87	_____
Labor	Hrs	0.86	\$ 11.00	\$ 9.48	\$ 0.17	_____
Crop Insurance	Acre	1.00	\$ 14.00	\$ 14.00	\$ 0.25	_____
Land Rental	Acre	1.00	-	-	-	_____
Interest on Operating capital	Percent	\$ 154.97	7.50%	\$ 11.62	\$ 0.21	_____
Drying - 8 points	Bushel	60.36		-	-	_____
Total Variable Costs				\$ 321.57	\$ 5.85	_____

Fixed Costs:

<i>Machinery: Depreciation, Taxes, Insurance, and Housing</i>						
Preharvest	Acre	1.00	\$ 21.18	\$ 21.18	\$ 0.39	_____
Harvest	Acre	1.00	\$ 25.68	\$ 25.68	\$ 0.47	_____
Irrigation	Acre	1.00	\$ 100.00	\$ 100.00	\$ 1.82	_____
General Overhead	% of VC	\$ 321.57	5.00%	\$ 16.08	\$ 0.29	_____
Management	% of VC	\$ 321.57	5.00%	\$ 16.08	\$ 0.29	_____
Owned Land Costs; Taxes, Cash Payment, Etc.	Acre	1.00	-	-	-	_____
Other		1.00	-	-	-	_____
Total Fixed Costs				\$ 179.01	\$ 3.25	_____

TOTAL COSTS AND PROFIT GOAL

Total Costs Excluding Land	\$ 500.58	\$ 9.10
**** YOUR PROFIT GOAL ****	\$ _____/Bu.	
\$\$-PRICE NEEDED FOR PROFIT-\$\$	\$ _____/Bu.	

* Note: In the case of Asian Soybean Rust infection, add \$10-\$25 for fungicide sprays.

**Average of diesel and electric irrigation application costs. Electric is estimated to be \$6/application and diesel is estimated to be \$13.10/application at \$2.85/gallon diesel.

Sensitivity Analysis of SOYBEANS, IRRIGATED

NET RETURNS ABOVE VARIABLE COSTS PER ACRE						
Varying Prices and Yield (Bushels)						
Bu/Acre	-25%	-10%	Average	+10%	+25%	
	41.25	49.5	55	60.5	68.75	
\$7.50	\$ (16.35)	\$ 45.53	\$ 86.78	\$ 128.03	\$ 189.90	
\$8.00	\$ 4.28	\$ 70.28	\$ 114.28	\$ 158.28	\$ 224.28	
\$8.50	\$ 24.90	\$ 95.03	\$ 141.78	\$ 188.53	\$ 258.65	
\$9.00	\$ 45.53	\$ 119.78	\$ 169.28	\$ 218.78	\$ 293.03	
\$9.50	\$ 66.15	\$ 144.53	\$ 196.78	\$ 249.03	\$ 327.40	

ESTIMATED LABOR AND MACHINERY COSTS PER ACRE

PREHARVEST OPERATIONS							
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)	
Heavy Disk27' with Tractor (180-199 hp)-MFWD 190	13.214	2.00	0.15	1.48	3.03	8.81	
Disk Harrow32' with Tractor (180-199 hp)-MFWD 190	16.291	1.00	0.06	0.60	1.30	3.78	
Disk Bed (Hipper)6R-36 with Tractor (180-199 hp)-MFWD 190	19.200	1.00	0.05	0.51	0.87	2.77	
Plant - Rigid6R-36 with Tractor (120-139 hp)-2WD 130	9.573	1.00	0.10	0.70	1.43	3.98	
Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130	35.455	3.00	0.08	0.57	0.76	1.84	
Total Preharvest Fuel, Repairs, Fixed Costs, & Labor			0.454	3.86	\$ 7.39	\$ 21.18	

HARVEST OPERATIONS							
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)	
Header - Soybean18' Flex with Combine (200-249 hp)240hp	7.047	1.000	0.142	1.75	3.30	22.73	
Grain Cart500 bu with Tractor (120-139 hp)-2WD 130	10.642	1.000	0.094	0.63	0.63	2.95	
Total Harvest Fuel, Repairs, Fixed Costs, and Labor			0.236	2.38	\$ 3.93	\$ 25.68	

**SOYBEANS, STRIP-TILLAGE, IRRIGATED
ROUNDUP READY
SOUTH GEORGIA, 2009**

ESTIMATED COSTS AND RETURNS

Expected Yield **55 Bushels** YIELD: YOUR FARM _____

Variable Costs:	Unit	Number of Units	\$/Unit	Cost/Acre	\$/Bushels	Your Farm
Seed	Bag	1.00	\$ 45.00	\$ 45.00	\$ 0.82	_____
Cover Seed	Bu.	1.50	\$ 11.00	\$ 16.50	\$ 0.30	_____
Inoculant	acre	1.00	\$ 3.00	\$ 3.00	\$ 0.05	_____
Lime	Tons	0.33	\$ 43.00	\$ 14.19	\$ 0.26	_____
Fertilizer						
Nitrogen	Lbs	0.00	\$ 0.82	\$ -	\$ -	_____
Phosphate (P2O5)	Lbs	40.00	\$ 0.74	\$ 29.60	\$ 0.54	_____
Potash (K2O)	Lbs	80.00	\$ 0.80	\$ 64.00	\$ 1.16	_____
Boron	Lbs	0.50	\$ 3.90	\$ 1.95	\$ 0.04	_____
Weed Control	Acre	1.00	\$ 30.44	\$ 30.44	\$ 0.55	_____
Insect Control	Acre	1.00	\$ 4.55	\$ 4.55	\$ 0.08	_____
Disease Control*	Acre	1.00	\$ 24.94	\$ 24.94	\$ 0.45	_____
<i>Machinery: Preharvest</i>						
Fuel	Gallon	3.06	\$ 2.85	\$ 8.72	\$ 0.16	_____
Repairs & Maintenance	Acre	1.00	\$ 5.62	\$ 5.62	\$ 0.10	_____
<i>Machinery: Harvest</i>						
Fuel	Gallon	2.38	\$ 2.85	\$ 6.79	\$ 0.12	_____
Repairs & Maintenance	Acre	1.00	\$ 3.93	\$ 3.93	\$ 0.07	_____
Irrigation**	Inch	4.00	\$ 9.55	\$ 38.20	\$ 0.69	_____
Labor	Hrs	0.75	\$ 11.00	\$ 8.22	\$ 0.15	_____
Crop Insurance	Acre	1.00	\$ 14.00	\$ 14.00	\$ 0.25	_____
Land Rental	Acre	1.00	\$ -	\$ -	\$ -	_____
Interest on Operating capital	Percent	\$ 159.82	7.50%	\$ 11.99	\$ 0.22	_____
Drying - 8 points	Bushel	60.36	\$ -	\$ -	\$ -	_____
Total Variable Costs				\$ 331.62	\$ 6.03	
Fixed Costs:						
<i>Machinery: Depreciation, Taxes, Insurance, and Housing</i>						
Preharvest	Acre	1.00	\$ 16.03	\$ 16.03	\$ 0.29	_____
Harvest	Acre	1.00	\$ 25.68	\$ 25.68	\$ 0.47	_____
Irrigation	Acre	1.00	\$ 100.00	\$ 100.00	\$ 1.82	_____
General Overhead	% of VC	\$ 331.62	5.00%	\$ 16.58	\$ 0.30	_____
Management	% of VC	\$ 331.62	5.00%	\$ 16.58	\$ 0.30	_____
Owned Land Costs; Taxes, Cash Payment, Etc.	Acre	1.00	\$ -	\$ -	\$ -	_____
Other _____						_____
Total Fixed Costs				\$ 174.87	\$ 3.18	
TOTAL COSTS AND PROFIT GOAL						
Total Costs Excluding Land				\$ 506.50	\$ 9.21	
**** YOUR PROFIT GOAL ****				\$ _____	/Bu.	
\$\$-PRICE NEEDED FOR PROFIT-\$\$				\$ _____	/Bu.	

* Note: In the case of Asian Soybean Rust infection, add \$10-\$25 for fungicide sprays.

**Average of diesel and electric irrigation application costs. Electric is estimated to be \$6/application and diesel is estimated to be \$13.10/application at \$2.85/gallon diesel.

Sensitivity Analysis of SOYBEANS, STRIP-TILLAGE, IRRIGATED

NET RETURNS ABOVE VARIABLE COSTS PER ACRE						
Varying Prices and Yield (Bushels)						
Bu/Acre	-25%	-10%	Average	+10%	+25%	
	41.25	49.5	55	60.5	68.75	
\$7.50	\$ (26.40)	\$ 35.48	\$ 76.73	\$ 117.98	\$ 179.85	
\$8.00	\$ (5.77)	\$ 60.23	\$ 104.23	\$ 148.23	\$ 214.23	
\$8.50	\$ 14.85	\$ 84.98	\$ 131.73	\$ 178.48	\$ 248.60	
\$9.00	\$ 35.48	\$ 109.73	\$ 159.23	\$ 208.73	\$ 282.98	
\$9.50	\$ 56.10	\$ 134.48	\$ 186.73	\$ 238.98	\$ 317.35	

ESTIMATED LABOR AND MACHINERY COSTS PER ACRE

PREHARVEST OPERATIONS							
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)	
Spin Spreader5 ton with Tractor (120-139 hp)-2WD 130	23.758	1.00	0.04	0.28	0.50	1.42	
Disk Harrow32' with Tractor (180-199 hp)-MFWD 190	16.291	1.00	0.06	0.60	1.30	3.78	
Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130	35.455	1.00	0.03	0.19	0.25	0.61	
ST Plant-Rigid6R-36 with Tractor (180-199 hp)-MFWD 190	6.873	1.00	0.15	1.42	2.80	8.38	
Spray (Broadcast)60' with Tractor (120-139 hp)-2WD 130	35.455	3.00	0.08	0.57	0.76	1.84	
Total Preharvest Fuel, Repairs, Fixed Costs, & Labor			0.362	3.06	\$ 5.62	\$ 16.03	

HARVEST OPERATIONS							
Operation	Acres/Hour	Number Times Over	Labor Use (Hr.)	Fuel Use (Gal./Ac)	Machinery Repairs (\$/Ac)	Fixed Costs (\$/Ac)	
Header - Soybean18' Flex with Combine (200-249 hp)240hp	7.047	1.000	0.142	1.75	\$ 3.30	\$ 22.73	
Grain Cart500 bu with Tractor (120-139 hp)-2WD 130	10.642	1.000	0.094	0.63	\$ 0.63	\$ 2.95	
Total Harvest Fuel, Repairs, Fixed Costs, and Labor			0.236	2.38	\$ 3.93	\$ 25.68	