

# MANAGEMENT MARKETING MEMO

Department of Agricultural and Applied Economics, Clemson University, Clemson, SC, 29634-0355

MMM 436

January 25, 2007

## 2007 Estimated Costs and Returns for Irrigated Peanuts

Todd D. Davis  
Extension Economist

The commodity markets are currently bidding for acreage due to a bullish final crop report for the 2006 corn and soybean crop. Will the bidding for acreage benefit peanut producers through higher prices? Currently, the major decision for producers is to evaluate the crop enterprise mix for 2007. This memo discusses the estimated costs and returns for producing irrigated peanuts, how production costs have increased since 2002, and how price and yield variability affects profitability.

### Costs and Returns for 2007

Table 1. 2007 Irrigated Peanuts Estimated Costs and Returns (\$/Acre)<sup>1/</sup>.

	Unit	Quantity	Price or Cost/Unit	Total Per Acre
<b>Gross Receipts</b>				
Peanuts <sup>2/</sup>	lbs	4000	\$0.2100	\$840.00
<b>Total Receipts</b>				<b>\$840.00</b>
<b>Variable Costs</b>				
Seed (certified)	lbs.	120	\$0.60	\$72.00
Innoculant	oz	14	\$0.60	\$8.40
Fertilizer				
Phosphate	lbs.	40	\$0.35	\$14.00
Potash	lbs.	60	\$0.29	\$17.40
Boron	lbs.	2.5	\$0.75	\$1.88
Lime (prorated)	ton	0.5	\$52.50	\$26.25
Land Plaster (spread)	ton	0.75	\$32.00	\$24.00
Herbicides	acre	1	\$56.35	\$56.35
Insecticides	acre	1	\$18.13	\$18.13
Fungicides	acre	1	\$102.84	\$102.84
Growth Reg	acre	1	\$14.16	\$14.16
Irrigation Machinery and labor	acre	1	\$32.11	\$32.11
Consultant Fee	acre	1	\$15.00	\$15.00
Hauling	ton	2	\$16.00	\$32.00
Drying and cleaning	ton	2	\$40.00	\$80.00
State Check-off Fee	ton	2	\$2.00	\$4.00
National Assesment	acre	1	\$9.20	\$9.20
Crop Insurance	acre	1	\$13.00	\$13.00
Tractor/Machinery	acre	1	\$59.22	\$59.22
Labor	hrs	5.11	\$6.50	\$33.22
Interest on Operating Capital	dol.	230.87	9.00%	\$20.78
<b>Total Variable Costs</b>				<b>\$653.93</b>
<b>Return over Variable Costs</b>				<b>\$186.07</b>

<sup>1/</sup> Detailed enterprise budgets for agronomic crops are available at: <http://cherokee.agecon.clemson.edu/budgets.htm> or from your local Clemson University Cooperative Extension office.

<sup>2/</sup> Peanut price based on Economist's Forecast for Fall 2007 on January 18, 2007. Contract prices may differ from this estimate.

The estimated Return over Variable (production) Costs for irrigated peanuts for 2007, based on Clemson University Enterprise budgets, is described in Table 1. Total production costs are estimated to be \$654/acre with pesticides/growth regulator costs accounting for 29% of the total cost per acre (Table 1). In addition, fertilizer/lime/land plaster, seed/inoculants, and machinery/irrigation equipment costs account for 13%, 12%, and 14%, respectively, of the total cost per acre (Table 1). The harvest cash price, based on economist's forecast, is \$0.21/lb. (Table 1). Given the revenue and cost estimates, the Return over Variable Costs for irrigated peanuts is estimated to be \$186 per acre (Table 1).

### Understanding the Increase in Production Costs

For long-term profitability, producers must continue to control costs. The production costs for irrigated peanuts from 2002 to 2007, based on Clemson University Extension enterprise budgets, are reported in Table 2.

Table 2. Budgeted Production Costs from 2002 – 2007 for Irrigated Peanuts with an Estimated Yield of 4000 Pounds/Acre.

<b>Variable Costs</b>	<u>2006/2007</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
Seed (certified)	\$72.00	\$72.00	\$78.00	\$84.00	\$96.00
Innoculant	\$8.40	\$7.70	\$7.00	\$7.00	\$7.00
Fertilizer					
Phosphate	\$14.00	\$13.24	\$11.91	\$10.98	\$10.22
Potash	\$17.40	\$13.28	\$9.93	\$8.85	\$9.15
Boron	\$1.88	\$1.88	\$1.45	\$1.73	\$1.75
Lime (prorated)	\$26.25	\$15.85	\$14.40	\$13.70	\$13.55
Land Plaster (spread)	\$24.00	\$24.00	\$28.50	\$28.50	\$28.50
Herbicides	\$56.35	\$51.14	\$50.51	\$42.79	\$55.10
Insecticides	\$18.13	\$15.99	\$15.56	\$14.79	\$23.82
Fungicides	\$102.84	\$96.83	\$80.54	\$87.65	\$86.47
Growth Reg	\$14.16	\$13.92	\$0.00	\$0.00	\$0.00
Irrigation Machinery and labor	\$32.11	\$19.00	\$16.61	\$16.61	\$16.58
Consultant Fee	\$15.00	\$15.00	\$15.00	\$10.00	\$7.00
Hauling	\$32.00	\$26.40	\$24.00	\$24.00	\$24.00
Drying and cleaning	\$80.00	\$60.00	\$50.00	\$40.00	\$40.00
State Check-off Fee	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00
National Assessment	\$9.20	\$9.20	\$19.60	\$19.60	\$20.13
Crop Insurance	\$13.00	\$13.00	\$13.00	\$10.00	\$10.00
Tractor/Machinery	\$59.22	\$54.29	\$49.73	\$45.44	\$54.84
Labor	\$33.22	\$30.66	\$30.66	\$30.66	\$49.68
Interest on Operating Capital	<u>\$20.78</u>	<u>\$18.53</u>	<u>\$16.95</u>	<u>\$16.32</u>	<u>\$16.65</u>
<b>Total Variable Costs</b>	\$653.92	\$575.91	\$537.36	\$516.62	\$574.44
<b>Increase from Previous Year (\$/acre)</b>	\$78.02	\$38.55	\$20.74	-\$57.82	

The elimination of the peanut marketing quota in 2002 caused production costs to decrease by \$57/acre between 2002 and 2003 (Table 2). However, variable costs have increased \$137/acre since 2003 with 57% of the increase occurring since 2005 (Table 2). As you would expect, the largest increase has been for pesticides/growth regulators which has increased \$46 per acre since 2003 and accounts for 34% of the cost increase since 2003 (Table 2). Drying/cleaning costs have increased \$40/acre while the cost of fertilizer/lime/land plaster increased \$20/acre since 2003 (Table 2). Machinery and irrigation equipment operating expenses increased by \$29/acre which reflects the increase in the price of oil. However, the

elimination of the peanut marketing quota has caused some inputs to be less expensive. For instance, the cost of certified seed has decreased \$11/acre and the National Assessment fees charged decreased \$10/acre since 2003 (Table 2).

This cost information will help managers understand which cost items have increased the most and, in turn, which items to focus on when monitoring costs. It is important to remember that it is important to cut the non-necessary expenses and to use inputs in a way to get the biggest return for the cost of the input. Therefore, sound management practices should be used when managing costs. For example, soil tests can be used to determine fertilization rates and increased scouting for weeds and insects can be used to monitor pesticide costs.

### How Risky is Irrigated Peanuts in 2007?

Another question managers should consider when evaluating a crop enterprise is the risk of not covering variable costs. The Total Variable Costs for irrigated peanuts is estimated to be \$654/acre (Table 1). At an expected yield of 4000 lbs./acre, the break-even price for irrigated peanuts is \$0.1635 per pound. At this break-even price, there will be just enough revenue to pay for the variable costs listed in Table 1. However, the break-even price does not pay for the cost of rented land or provide a return to fixed costs and management.

Table 3 describes the Return over Variable Costs for alternative prices and yields. Managers can use Table 3 to evaluate the risk of not covering variable costs of producing irrigated peanuts based on their own price and yield expectations. For example, at the price of \$0.20/lb., there would be revenue available to pay for all production expenses with yields of 3600 lbs./acre or greater (Table 3). Similarly, at a yield of 3200 lbs./acre, all variable costs will be covered with prices of \$0.21/lb. or greater (Table 3).

Table 3. Return over Variable Costs for Various Prices and Yields for Irrigated Peanuts (4000 lb/acre Expected Yield)<sup>1/</sup>.

Harvest Yield	Harvest Cash Price						
	\$0.17	\$0.18	\$0.19	\$0.20	\$0.21	\$0.22	\$0.23
2800	(\$178.00)	(\$150.00)	(\$122.00)	(\$94.00)	(\$66.00)	(\$38.00)	(\$10.00)
3200	(\$110.00)	(\$78.00)	(\$46.00)	(\$14.00)	\$18.00	\$50.00	\$82.00
3600	(\$42.00)	(\$6.00)	\$30.00	\$66.00	\$102.00	\$138.00	\$174.00
4000	\$26.00	\$66.00	\$106.00	\$146.00	\$186.00	\$226.00	\$266.00
4250	\$68.50	\$111.00	\$153.50	\$196.00	\$238.50	\$281.00	\$323.50
4500	\$111.00	\$156.00	\$201.00	\$246.00	\$291.00	\$336.00	\$381.00

<sup>1/</sup>Total Variable Costs are estimated to be \$654 per acre.

### Where do I go for Help in Making this Decision?

Clemson University Extension has developed budgets for the major agronomic crops to help you evaluate their profitability for your farm business. The budgets are to be used as a guide and it is very important that you adjust these budgets to reflect your own costs, management practices, and productivity. You can download the enterprise budgets from the internet at <http://cherokee.agecon.clemson.edu/budgets.htm>. Your local extension office will be able to help you download these budgets and can help you understand how to use these budgets to make decisions for your farm business.