

**ARKANSAS CORN AND GRAIN SORGHUM PROMOTION BOARD**  
**2006 Report**

**Title:** Economic Analysis of Corn and Grain Sorghum Production Practices

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The 2006 crop year was good for corn and grain sorghum producers. At the outset of the year, the outlook was rather dismal due to projected increases in the price of inputs, specifically fertilizer and irrigation fuel. Even though price for inputs was greater than average, input prices moderated and declined over parts of the year. Thus the situation improved over the pre-season projections and was not as bleak as expected. In fact, some producers were able to pay all costs and had a positive net return for the year.

This year there were 8 fields in the corn research verification program and 2 in grain sorghum. Economic summary results for the year can be seen in Table 1. Even though production costs increased for the year, cooperators generally had good yields and market prices for their crops increased enough for most program cooperators to cover all costs and show a modest profit.

Total per acre specified direct costs increased for the 2006 season, \$349.24 compared to \$294.11 in 2005 for corn and \$207.94 compared to \$184.35 in 2005 for grain sorghum. Changes in costs for selected inputs can be seen in Table 2. Fertilizer had the largest percent increase for both commodities.

Table 3 shows a multi-year comparison of breakeven prices for both direct and total direct plus fixed costs for each year since 2002 for both grain sorghum and corn. This table also contains a comparison of average yields and estimated market prices for each commodity for each year. Notice the estimated market price for corn was greater than its specified total costs for each year and estimated market price was greater than total costs for grain sorghum three out of five years.

**Table 1. Economic summary information for the 2006 Corn and Grain Sorghum Research Verification Program.**

<b>County</b>	<b>Total Direct Expenses<sup>1</sup></b> <b>(\$/A)</b>	<b>Break-even Direct<sup>2</sup></b> <b>(\$/Bu)</b>	<b>Total Direct and Fixed Expenses<sup>3</sup></b> <b>(\$/A)</b>	<b>Break-even For Total<sup>4</sup></b> <b>(\$/Bu)</b>	<b>Break-even Including Land Costs<sup>5</sup></b> <b>(\$/Bu)</b>	<b>Returns Above Total Expenses and Rent<sup>6</sup></b> <b>(\$/A)</b>
<b><u>Corn</u></b>						
Clay	\$317.60	\$1.89	\$365.46	\$2.18	\$2.90	\$35.06
Crittenden	\$349.35	\$2.12	\$444.65	\$2.69	\$3.59	-\$51.28
Desha	\$389.18	\$1.87	\$443.94	\$2.13	\$2.85	\$51.94
Greene	\$325.08	\$1.87	\$370.73	\$2.13	\$2.84	\$44.10
Mississippi # 1	\$386.23	\$2.59	\$433.20	\$2.91	\$3.88	-\$77.97
Mississippi # 2	\$379.14	\$3.72	\$426.11	\$4.18	\$5.57	-\$182.94
Poinsett	\$385.32	\$1.93	\$429.96	\$2.15	\$2.87	\$46.85
Randolph	\$309.15	\$1.82	\$391.95	\$2.31	\$3.07	\$13.34
<b>Average</b>	<b>\$349.24</b>	<b>\$2.05</b>	<b>\$416.40</b>	<b>\$2.44</b>	<b>\$3.26</b>	<b>\$0.05</b>
<b><u>Grain Sorghum</u></b>						
Poinsett Irr.	\$216.42	\$2.14	\$288.31	\$2.85	\$3.81	-\$30.82
Poinsett Non-irr.	\$174.71	\$1.68	\$196.75	\$1.89	\$2.52	\$68.39
<b>Average</b>	<b>\$207.94</b>	<b>\$2.05</b>	<b>\$269.70</b>	<b>\$2.66</b>	<b>\$3.55</b>	<b>-\$10.65</b>

<sup>1</sup> Specified out-of-pocket expenses, such as seed, fertilizer, irrigation, etc.

<sup>2</sup> Price per bushel required by the farmer to equal total specified operating costs. Does not include land, overhead, risk, and management costs.

<sup>3</sup> Total specified operating costs plus ownership costs which include charges for depreciation and interest on all machinery and irrigation equipment, taxes, and insurance.

<sup>4</sup> Price per bushel required by the farmer to equal total specified operating and ownership costs. Does not include land, overhead, risk, and management costs.

<sup>5</sup> Break-even price per bushel plus a 25 percent crop share rent. Does not include overhead, risk, and management costs.

<sup>6</sup> A 25 percent crop share rent was assumed as a land charge for a renter situation. No cost sharing was assumed.

Sales price is the greater of average Arkansas market price August through October and CCC Loan Price plus LDP.

**Table 2. Percent change in production costs 2005—2006, selected inputs.**

<b>Selected input</b>	<b>Percent change from 2005</b>
<u>Corn</u>	
Fertilizer	30%
Herbicides	-23%
Crop Seed	25%
Operator Labor	-16%
Diesel Fuel	22%
Repairs & Maintenance	-18%
Interest on Op. Capital	51%
Total Direct Expenses	19%
Total Fixed Expenses	68%
<u>Grain Sorghum</u>	
Custom Work	36%
Fertilizer	54%
Herbicides	32%
Diesel Fuel	-29%
Repairs & Maintenance	-50%
Interest on Op. Capital	53%
Total Fixed Expenses	6%

**Table 3. Comparison of breakeven costs and average sales price.**

<b>Year</b>	<b>Direct Costs Breakeven \$/bu</b>	<b>Total Costs Breakeven \$/bu<sup>1</sup></b>	<b>Price \$/bu<sup>2</sup></b>	<b>Yield bu</b>
<u>Corn</u>				
2002	1.60	1.93	2.46	159
2003	1.38	1.68	2.18	180
2004	1.60	1.85	2.01	158
2005	1.77	2.01	2.09	173
2006	2.05	2.44	3.18	175
<u>Grain Sorghum</u>				
2002	1.60	2.03	2.58	100
2003	1.22	1.65	2.30	131
2004	1.53	2.04	1.98	114
2005	1.71	2.22	1.95	117
2006	2.05	2.66	3.40	102

<sup>1</sup> Price per bushel required by the farmer to equal total specified operating and ownership costs.  
Does not include land, overhead, risk, and management costs.

<sup>2</sup> Estimated market price.