

**PROJECT ANNUAL REPORT  
ARKANSAS CORN/GRAIN SORGHUM PROMOTION BOARD 2013-2014 CROP YEAR**

**Title:** Corn and Grain Sorghum Production Economics for Optimal Farm Management

**Investigator:** Dr. Archie Flanders  
Assistant Professor - Economics

**Status:** Year 3 of 3 Years

**Stated Goal:** The goal of this project is to provide crop enterprise budgets for corn and grain sorghum that are flexible for representing alternative production practices of Arkansas producers. Crop enterprise budgets are developed with methods that are consistent over all field crops.

**Accomplishments for Current Year:**

Crop enterprise budgets for 2013 had a total of 53,322 annual web visits for all Arkansas field crops.

The budget program has been utilized for economic analysis of the 2013 corn and grain sorghum research verification data.

Crop enterprise budgets for 2014 were released in December 2013.

The crop enterprise budgets are applied to develop weighted average production functions for corn and grain sorghum. Weights are based on irrigation types. Input costs indexes are used to develop economic measures for a time series. Table 1 presents costs for corn and Table 2 presents costs for grain sorghum during 2007-2013. Yield increases lead to decreased production cost on a per bushel basis in Table 1 and Table 2. Prices received that are greater than costs per bushel represent positive net returns for producers.

**Table 1. Weighted Average Costs, per Acre, Arkansas Corn, 2007-2013**

Expense	2013	2012	2011	2010	2009	2008	2007
Operating Costs	570.68	565.12	523.83	452.86	450.59	548.72	391.03
Fixed Costs	80.23	78.70	74.72	70.43	67.98	64.00	58.49
<b>Total Costs<sup>1</sup></b>	<b>650.91</b>	<b>643.82</b>	<b>598.55</b>	<b>523.30</b>	<b>518.58</b>	<b>612.72</b>	<b>449.52</b>
Average Yield (bu.)	182.0	178.0	142.0	150.0	148.0	155.0	169.0
Total Costs Per Bu.	3.58	3.62	4.22	3.49	3.50	3.95	2.66

<sup>1</sup>Does not include land cost.

Table 2. Weighted Average Costs, per Acre, Arkansas Grain Sorghum, 2007-2013

Expense	2013	2012	2011	2010	2009	2008	2007
Operating Costs	304.19	304.31	285.93	244.06	250.69	328.35	217.01
Fixed Costs	59.45	58.31	55.36	52.19	50.37	47.42	43.34
<b>Total Costs<sup>1</sup></b>	<b>363.64</b>	<b>362.62</b>	<b>341.29</b>	<b>296.25</b>	<b>301.06</b>	<b>375.77</b>	<b>260.35</b>
Average Yield (bu.)	88.0	84.0	72.0	77.0	79.0	88.0	96.0
Total Costs Per Bu.	4.13	4.32	4.74	3.85	3.81	4.27	2.71

<sup>1</sup>Does not include land cost.