



DIVISION OF AGRICULTURE

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University of Arkansas System

**Trends in Net Returns for
Arkansas Field Crops, 2008-2014**

Trends in Net Returns for Arkansas Field Crops, 2008-2014

March 2015

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Trends in Net Returns for Arkansas Field Crops, 2008-2014

Increasing commodity price trends in recent years have increased farm profitability during a period of increasing input costs. Productivity increases resulting in improved crop yields generate more revenue per unit of input. Thus, increases in agricultural productivity contribute to greater net returns for Arkansas producers. Decreased commodity prices led to decreased 2014 net returns for all Arkansas field crops. Excellent 2014 crop yields mitigated effects of lower prices and supported net returns. This report presents estimates of net returns per acre for typical Arkansas methods of crop production during 2008-2014.

Net Returns

Crop enterprise budgets developed by the University of Arkansas include estimated costs per acre for field crops (University of Arkansas 2013.) Input prices applied to field rates of usage determine production costs. Budget costs represent the most generalized production practices for three irrigation scenarios: 1) surface, 2) center pivot, and 3) non-irrigated. For this report, aggregated 2014 production functions are developed for field crops as weighted averages of crop enterprise budgets. Input price changes since December 2013 are applied so that costs are representative of the spring 2014 planting period (USDA-NASS 2014). Irrigation energy costs are weighted by irrigation type, as well as diesel or electric power source (USDA-NASS 2010; USDA-NASS 2014b). Rice weights are percentages of seed type planted based on information from Extension specialists. Table 1 presents average net returns with state average yields and commodity prices received (USDA-NASS 2015).

Table 1. Weighted Average Net Returns, per Acre, Arkansas Field Crops, 2014

Revenue and Expenses	Cotton	Corn	Soybean	Rice	Sorghum	Wheat
Average Yield: Cotton (lbs.), Other (bu.)	1,193	187	50.0	168	97	63
Price Received	0.619	4.05	10.70	5.72	3.95	5.60
Sell Seed	144.23					
Operating Costs ¹	471.81	558.98	281.22	610.33	252.04	238.13
Returns to Operating Costs	266.65	198.37	253.78	350.63	131.11	114.67
Fixed Costs	142.89	81.70	67.95	105.30	63.85	44.35
Total Costs ²	614.70	640.68	349.17	715.63	315.89	282.47
Net Returns to Land & Management	123.77	116.67	185.83	245.33	67.26	70.33

¹Value of cottonseed sold deducted from cotton post-harvest expenses.

²Does not include land costs.

High crop yields in 2014 supported net returns from the effects of lower commodity prices. Historical yield records were realized for cotton, corn, soybeans, rice, and wheat. Grain sorghum had the second highest yield on record. Net returns to land and management in 2014 are greatest for rice with \$245.33 per acre. Soybeans have the second greatest net returns with

\$185.83 per acre. Cotton net returns are \$123.77 per acre, and corn net returns are \$116.67 per acre. Wheat net returns are \$70.33 per acre. Net returns for grain sorghum are \$67.26 per acre.

Appendixes 1 through Appendix 6 are average net returns for each field crop during 2008-2014. Trends in net returns from these appendixes are presented in Figure 1. Rice has the greatest net returns during 2008-2009. Subsequently, rice net returns decreased as net returns for all other crops increased in 2010. During 2010-2013, all crops have increasing trends in net returns. Net returns for all crops are lower in 2014 than the previous year.

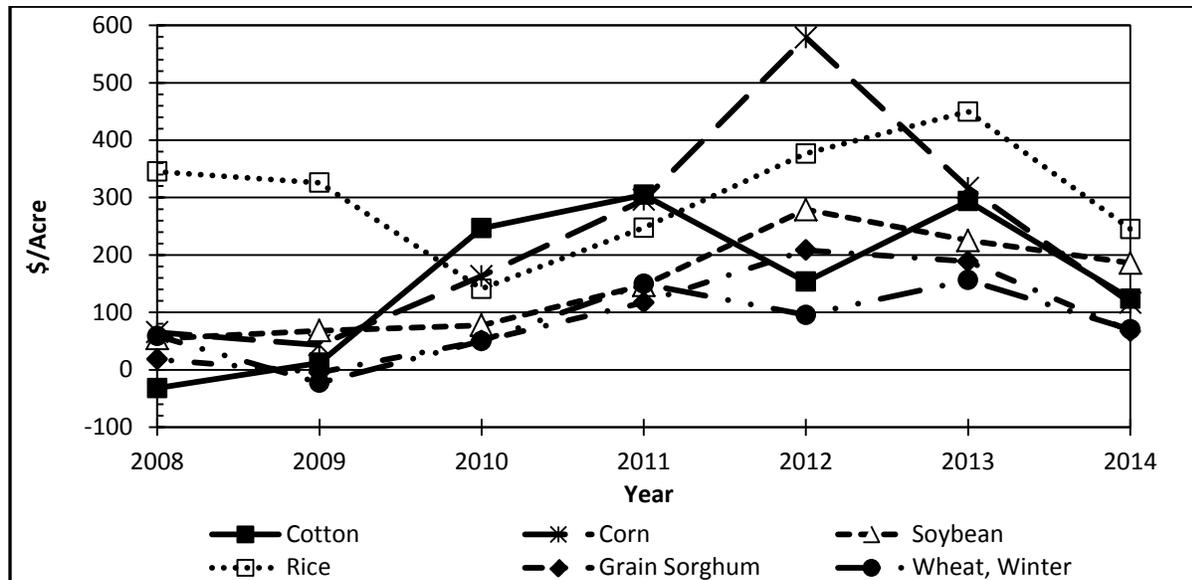


Figure 1. Net Returns per Acre, Arkansas Field Crops, 2008-2014

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Appendixes

Appendix 1. Weighted Average Net Returns, per Acre, Arkansas Cotton, 2008-2014

Expense	2014	2013	2012	2011	2010	2009	2008
Average Yield (lbs.)	1,193.0	1,133.0	1,064.0	929.0	1,045.0	818.0	1,012.0
Price Received	0.619	0.794	0.715	0.947	0.735	0.630	0.520
Sell Seed	144.23	136.98	128.64	112.32	126.34	98.90	122.35
Operating Costs ¹	471.81	466.99	472.09	446.11	400.55	386.48	448.19
Returns to Operating Costs	266.65	432.62	288.67	433.66	367.52	128.86	78.05
Fixed Costs	142.89	139.03	135.17	128.73	121.01	116.80	109.96
Total Costs ²	614.70	606.01	607.25	574.84	521.56	503.27	558.14
Net Returns to Land & Management	123.77	293.59	153.51	304.93	246.52	12.07	-31.90

¹Value of cottonseed sold deducted from cotton post-harvest expenses.

²Does not include land costs.

Appendix 2. Weighted Average Net Returns, per Acre, Arkansas Corn, 2008-2014

Expense	2014	2013	2012	2011	2010	2009	2008
Average Yield (bu.)	187.0	186.0	178.0	141.0	150.0	148.0	152.0
Price Received	4.05	5.12	6.81	6.27	4.55	3.79	4.42
Operating Costs	558.98	555.98	555.89	514.54	450.06	451.09	543.57
Returns to Operating Costs	198.37	396.34	656.29	369.53	232.44	109.83	128.27
Fixed Costs	81.70	79.49	77.28	73.60	69.18	66.78	62.87
Total Costs ¹	640.68	635.47	633.17	588.14	519.25	517.87	606.43
Net Returns to Land & Management	116.67	316.85	579.01	295.93	163.25	43.05	65.41

¹Does not include land costs.

Appendix 3. Weighted Average Net Returns, per Acre, Arkansas Soybean, 2008-2014

Expense	2014	2013	2012	2011	2010	2009	2008
Average Yield (bu.)	50.0	43.5	43.5	38.5	35.0	37.5	38.0
Price Received	10.70	13.10	14.30	12.30	10.90	9.66	9.64
Operating Costs	281.22	278.55	278.62	265.08	246.30	238.54	259.86
Returns to Operating Costs	253.78	291.30	343.43	208.47	135.20	123.71	106.46
Fixed Costs	67.95	66.11	64.28	61.22	57.54	55.54	52.29
Total Costs ¹	349.17	344.66	342.89	326.30	303.84	294.08	312.15
Net Returns to Land & Management	185.83	225.19	279.16	147.25	77.66	68.17	54.17

¹Does not include land costs.

Appendix 4. Weighted Average Net Returns, per Acre, Arkansas Rice, 2008-2014

Expense	2014	2013	2012	2011	2010	2009	2008
Average Yield (bu.)	168.0	168.0	166.0	150.0	144.0	151.0	148.0
Price Received	5.72	6.84	6.44	6.03	5.09	6.03	6.75
Operating Costs	610.33	596.92	592.99	562.28	501.98	498.60	572.64
Returns to Operating Costs	350.63	552.20	476.05	342.22	230.26	411.93	426.36
Fixed Costs	105.30	102.45	99.61	94.86	89.17	86.07	81.03
Total Costs ¹	715.63	699.37	692.60	657.15	591.15	584.67	653.67
Net Returns to Land & Management	245.33	449.75	376.44	247.35	141.09	325.86	345.33

¹Does not include land costs.

Appendix 5. Weighted Average Net Returns, per Acre, Arkansas Grain Sorghum, 2008-2014

Expense	2014	2013	2012	2011	2010	2009	2008
Average Yield (bu.)	97.0	102.0	84.0	72.0	77.0	79.0	88.0
Price Received	3.95	4.96	6.22	5.71	4.00	3.23	3.88
Operating Costs	252.04	255.19	253.34	236.61	203.28	207.73	274.18
Returns to Operating Costs	131.11	250.73	268.81	174.65	104.59	47.54	67.33
Fixed Costs	63.85	62.12	60.39	57.52	54.07	52.19	49.13
Total Costs ¹	315.89	317.31	313.73	294.13	257.35	259.91	323.31
Net Returns to Land & Management	67.26	188.61	208.41	117.13	50.53	-4.65	18.20

¹Does not include land costs.

Appendix 6. Weighted Average Net Returns, per Acre, Arkansas Wheat, 2008-2014

Expense	2014	2013	2012	2011	2010	2009	2008
Average Yield (bu.)	63.0	62.0	55.0	58.0	54.0	44.0	56.0
Price Received	5.60	7.04	6.84	7.19	5.26	4.86	5.88
Operating Costs	238.13	237.19	238.69	227.55	196.27	200.27	236.23
Returns to Operating Costs	114.67	199.29	137.51	189.47	87.77	13.57	93.05
Fixed Costs	44.35	43.15	41.95	39.95	37.55	36.25	34.13
Total Costs ¹	282.47	280.34	280.64	267.50	233.82	236.52	270.35
Net Returns to Land & Management	70.33	156.14	95.56	149.52	50.22	-22.68	58.93

¹Does not include land costs.