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Cost of Production: Years with Low Crop Prices

With cost of production going up and prices per bushel going down and leveling out looking at past trends can be helpful in analyzing your farming operation. Below is a table comparing the cost of production per acre for irrigated corn on cash rented land for 2009 and 2014. 2009 was the last year we had comparable corn prices to 2014. This article looks at irrigated corn on cash rented land, but similar information is provided in our average books on owned and cash rented land as well as soybeans.

The average price for corn was \$3.76 per bushel in 2009 and \$3.69 in 2014. The overall cost has increased \$132.35 or almost 20%. The cost per bushel was held steady by an increase of yields during the same time frame. Fertilizer and chemical costs per acre surprisingly decreased from 2009 to 2014, but the 65% increase in land rent wasn't a surprise as the cash rents started to increase a few years ago when the price per bushel was in the \$6 to \$7 range. (See the chart on page 51 of the 2014 NFBI Whole State Average book). By looking closer at the numbers, the biggest change was under the operating power/machinery cost with a 64% increase in fuel & oil and a 48% increase in general repairs and supplies. Custom hire and machinery leases also went up a combined 30%.

The increase in other direct cost is made up entirely of irrigation energy and repairs. Other items in this category such as drying and storage and operating interest decreased, with marketing costs and professional fees having a small increase.

The depreciation expense per acre did drop, which can be explained by producers who were being a little more frugal with the machinery purchases in 2014. Also there wasn't a definite answer to depreciation rules, such as bonus and section 179, until late 2014. Although we use management depreciation for the analysis, excess purchases to reduce taxes still show up as a depreciation expense here.

Irrigated Corn on Cash Rented Land	2009	2014	Difference	Percent of the Total Increase
Seed	\$68.05	\$91.14	\$23.09	17%
Fertilizer	\$143.87	\$116.20	-\$27.67	-21%
Chemicals	\$50.75	\$47.12	-\$3.63	-3%
Crop Insurance	\$23.36	\$32.58	\$9.22	7%
Operating Power/Machine Costs	\$74.52	\$101.02	\$26.5	20%
Land Rent	\$171.74	\$258.11	\$86.37	65%
Depreciation	\$57.45	\$48.50	-\$8.95	-7%
Term Interest	\$5.82	\$3.91	-\$1.91	-1%
Other Direct Costs	\$64.38	\$87.18	\$22.80	17%
Overhead Expenses	\$28.33	\$34.86	\$6.51	5%
Total Expenses	\$688.27	\$820.62	\$132.35	100%

Included in our Operating Power/Crop Machinery cost is Fuel & Oil, General Repairs & Supplies, Machinery Repairs, Custom Hire and Machinery Leases.

The detail of the numbers can be tricky sometimes as farms can operate very differently. One producer may own all his equipment and do all the work himself, while the next may lease a good portion of his equipment and/or have part of his operation custom farmed. Looking at the big picture, however, it can be seen from the trend in the chart below that the profit trend has decreased slightly from 2009 numbers, with a 31 cent per bushel profit, to an 11 cent per bushel loss in 2014.

This chart shows the price and cost of production for Irrigated Corn on all tenure types. The area of blue above the tan is profit.

