

## PolicyPennings by Daryll E. Ray &amp; Harwood D. Schaffer

# Low prices in the late 1990s slowed production little but fueled the ethanol phenomenon

During the last four years that the 1996 Farm Bill was in effect, the price of corn remained below the loan rate, dragging all other row crops with it. Even though US soybean exports increased from their low of 805 million bushels in 1998 to 1,064 million bushels in 2001 as China increased its imports by 240 million bushels over the same period, that was not enough to raise the prices of crops competing for the same acreage and stanch the level of government payments required to keep the US agricultural sector afloat.

The argument made in the passage of the 1996 Farm Bill was not whether or not farmers are price responsive in their allocation of acres, but the idea that they would be more price-responsive now that they purchased more of their inputs than they did in the 1930s or even 1950s. Farmers have always been price responsive in their allocation of acres among the various crop options including pasture and hay.

Over time farmers historically have also shown a willingness to reduce the number of acres needed to produce the eight major crops (corn, soybeans, wheat, cotton, rice, grain sorghum, barley, and oats): just very slowly and not timely enough to quickly return prices to the level needed to keep from driving farmers out of production. And even when farmers have been forced off the farm, the land has remained in production.

The same was true when prices began to plummet in the years following the adoption of the 1996 Farm Bill. The price of corn in 1995 was \$3.24 per bushels then \$2.71, \$2.43, \$1.94, \$1.82, \$1.85, and \$1.97 from 1996 to 2001, respectively. Between the 1997 crop year and the 2001 crop year, harvested acres for the eight major crops declined by 17.2 million acres (7.5 percent). Barley and oat acres declined by 33 percent each. Wheat acres fell by more than 24 percent. Cotton and rice acres increased. Corn acres fell by 3.9 million acres while soybean acres increased by the same amount.

Despite these changes, crop prices remained at a level that required massive government payments into the 2001 crop year.

While farmers were not price responsive enough on the supply side to return crop production to profitability, they were price responsive on the demand enhancement side. With corn prices below the loan rate, farmers were told that further processing to increase the non-food use of their corn and soybeans was the answer to their price woes. And so farmers and their

check-off boards searched for suitable products that could use a lot of what they were producing.

The product that could use large amounts of corn was ethanol which could be blended in gasoline and used as a fuel oxygenate. For some time farmers had been pushing for the use of ethanol as a replacement for tetraethyl lead instead of MTBE with minimal success. But, the low prices of the late 1990s changed everything. Farmers invested in lobbying their state legislatures to mandate the use of a 10 percent ethanol blend in motor fuels as a way to support farmers and move toward energy independence. And one by one, farm state legislatures began to respond.

In addition to their lobbying activity, farmers also began to invest in ethanol cooperatives to provide the ethanol needed for use in gasoline. It was not uncommon to see farmers who were receiving \$1.85 per bushel for their corn invest \$10,000 in an ethanol cooperative for the right to sell 10,000 bushels of corn to the cooperative at a 2 to 5 cent premium over the market price. And so ethanol cooperatives began to be built at a modest pace.

Then we experienced the perfect storm. The US became involved in two wars in the Middle East creating uncertainty about relying on imported oil; MTBE, a carcinogen, was found in California groundwater; refinery problems reduced US gasoline production; several hurricanes crossed the Gulf of Mexico, shutting down oil platforms for weeks at a time; and suddenly everyone was talking about ethanol, including Congress. The Energy Policy Act of 2005 and Energy Security Act of 2007 created the federal mandates that severely upped the ante.

With high oil prices and the presence of ethanol mandates, the price of ethanol rose and farmers were receiving a quick return on their ethanol cooperative investments. This got the attention of Wall Street. Private firms quickly replaced farmers as the primary sources of investment funds and the number of ethanol plants under construction or expansion rose from 16 in January 2005 to 76 in January 2007.

As a result, the "USDA Long-term Projections, February 2007" showed the US use of corn for ethanol production increasing from 1.6 billion bushels in 2005 to 4.4 billion bushels in 2016. Corn prices went through the roof and many declared the inauguration of a new era in agriculture.

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Setting agriculture adrift in the 1996 Farm Bill with its lack of a brake on agricultural production led to the over-investment by farmers—but primarily others—in demand enhancement that along with a perfect storm of events resulted in significantly higher corn prices. We are not arguing against reasonable prices for farmers, but prices-well-above-the-cost-of-production has consequences as well.

The higher prices have resulted in an over-investment in agriculture by farmers in the US and around the world—particularly our export competitors. As

the demand for corn in ethanol production levels off at the same time that world-wide productive capacity peaks, prices have only one way to go.

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