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Can Acreage Controls Increase Iowa Farm Revenue?

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The number one failure of current U.S. farm policy is its inability to control supply, at least according to some policy-makers and analysts. With guaranteed minimum prices, farmers are finding it in their interest to maintain high planted acreage, even as market prices remain low. Congress is unlikely to eliminate the price guarantees, so some advocates are looking for a return to acreage controls to raise market prices. Opponents of acreage controls argue that unilateral decreases in U.S. acreage would only encourage our competitors to expand acreage. The ultimate effect, they argue, would be less U.S. acreage, more acreage in foreign countries, and little price change. Livestock interests see acreage controls through the lens of higher feed costs. They are typically opposed to anything that would raise them.

A key factor in determining the effects of acreage controls is whether other countries would expand their own supply in response. To find out if this would be the case, Senator Tom Harkin asked the Food and Agricultural Policy Research Institute (FAPRI) to evaluate the impact of a 10 percent reduction in acreage in U.S. agriculture, affecting all program crops uniformly. FAPRI modeled the 10 percent decrease as starting in crop year 2003 (the 2003/04 marketing season) and lasting eight years until 2010, the last year of the 2001 FAPRI baseline. The acreage decrease was then measured relative to this baseline. Because acreage increases over time in the FAPRI baseline, the model increased the number of acres pulled out of production over time as well. The model assumes a fixed relative acreage of planted crops at the baseline level, an assumption that implies that the estimated price effects of an acreage reduction are an upper bound on what would actually result from such a policy shift. In reality, both U.S. and foreign crop yields could increase substantially because of land slippage and because of higher net returns per unit of land.

**IMPACT ON COMMODITY PRICES**

The graph shows the estimated price impact of the acreage reduction. (For more details of the analysis, see FAPRI briefing paper 01-BP 33, available at www.fapri.iastate.edu.) As shown, a 10 percent reduction in corn acreage has a larger price impact than a 10 percent reduction in soybean acreage. The reason for this larger increase is that there are no foreign corn producers who can readily expand production to replace U.S. corn production. For soybeans, Brazil expands its oilseeds area and mitigates the rise in soybean prices. In addition, there are fewer substitutes for corn than for soybeans, which means that corn consumers have less flexibility in reducing corn use.

In the model, both corn and soybean prices increase by the largest amount in year two. In the first year, price run-ups are less than what might be expected because crop inventories are used to make up for the short crop. In subsequent years, inventories remain low and play a smaller role in mitigating price increases. The price impacts shrink over time as foreign production expands and begins to capture an increasing share of export markets, especially for soybeans. The FAPRI analysts estimate that Brazilian planted soybean acres would increase by approximately 1.2 million acres per year during the eight-year period. According to the analysts, this increase would be driven in part by the decrease in U.S. planted acres and in part by continued Brazilian investment in transportation infrastructure.

The effects of higher feed prices on livestock prices are moderate be-
cause the increase in feed cost is relatively small. Projected prices of beef (Nebraska Direct Fed-Steer) increase by 1.4 percent. Projected prices of pork (Iowa Southern Minnesota Barrows and Gilts) increase by 5.6 percent. Beef prices are less sensitive to feed costs because the feed cost share is smaller in beef production than in pork, and because pasture-fed cattle can substitute for grain-fed cattle. Because of these price increases, world supplies of beef, pork, and poultry decrease by 360 thousand metric tons (about 0.3 percent).

**Increase in Farm Revenues**
The potential for acreage reductions to result in increased revenue is limited, especially for soybean producers. After eight years, the 10 percent decrease in U.S. acreage would increase the price of corn by 12.9 percent and the price of soybeans by 6 percent. For the Iowa farmer who is in a 50-50 corn-soybean rotation, this means that revenue per planted acre would increase by about 9.6 percent. But, of course, there are 10 percent fewer planted acres, which means that total revenue would decline by a small amount. This decline in total revenue must then be compared to the decrease in production cost that comes about because of fewer planted acres.

In all likelihood, the FAPRI estimates overstate the price impacts of a reduction in U.S. planted acreage if it were implemented as a policy. History tells us that profit-driven farmers, both in the United States and around the world, have a great deal of imagination when it comes to taking full advantage of opportunities caused by big changes in policy. Undoubtedly, the net effect of an attempt to decrease U.S. crop acreage by 10 percent would result in less than a 10 percent reduction in U.S. planted acreage and quite a bit less than a 10 percent reduction in production. And overseas, farmers would increasingly devote attention to supplying program crops that are in relatively short supply.

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**USDA’s Nutrition Education Program Pays Long-Term Benefits**

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The United States Department of Agriculture (USDA) spends over $30 billion a year on food and nutrition assistance programs, an amount that is over one-half of the USDA budget today. Historically, U.S. food assistance programs featured purchase and distribution of surplus agricultural commodities to low-income households and to school lunch programs. Today, food and nutrition assistance includes a wide range of programs designed to provide low-income households access to adequate nutrients and a balanced diet, to increase food security in the general population and reduce hunger, especially for children, and to encourage low-income adults and children to acquire knowledge and skills to improve their diets with better food choices through nutrition education programs.

A recent study in Iowa shows that USDA’s Expanded Food and Nutrition Education Program (EFNEP) has been successful in achieving improved diets among low-income youth and low-income families with young children. (See CARD Staff Report 00-SR 93.) The Iowa study evaluated the costs and benefits of Iowa EFNEP to measure the net economic impact of the program from September 1998 to February 2000 for the seven Iowa counties offering the program to eligible participants. The study finds that Iowa EFNEP returns benefits of $10.75 in reduced long-term health costs for every $1.00 spent in program costs.

EFNEP is an educational intervention program designed to help limited-income youth and adults with young children acquire the knowledge, skills, attitudes, and changed behavior leading to the improvement of the total family diet and nutritional well-being. Participants learn about low-cost, nutritious foods and about managing food expenditures, including the use of Food Stamps and WIC coupons. The federal program operates at approximately $60 million per year and has been in existence since 1969.

Funding for the Iowa EFNEP comes from USDA. During the 2000 program year, the Iowa program served about 2,200 families in eight counties. In addition, over 17,000

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