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## What is ethanol's impact on price of U.S. food?

Ag economist says many factors impact price changes

by Laurie Pfeifer

Calling the ethanol industry "semi-guilty" of having a negative impact on food prices, University of Nebraska-Lincoln ag economist Richard Perrin told members of the Nebraska Ethanol Board Friday that other factors, such as world demand for coarse grains, play a far greater role in rising food prices.



It was music to the ears of Ethanol Board members whose industry is often singled out by mainstream media as the culprit responsible for record corn prices and the more recent dramatic rise in the cost of food.

Not so, Perrin said, at least not so on its own.

"No doubt the ethanol boom has been a big contributor to the increases in the prices of corn and other grains, but prices for these crops are determined in the world market and other supply-demand factors throughout the world have affected them as well," he explained. "Increased ethanol demand increases grain prices, but world population growth also increases grain prices."

The UNL professor said in his opinion, three factors drive grain prices: ethanol demand, world population growth and speculation.

Accordingly, three factors also drive food prices: increased grain prices, increased energy prices and other input prices.

Perrin said by using econometric models, it's possible to learn what might be the plausible effects of ethanol on food prices versus other market factors.

He singled out the CARD-FAPRI model of world agricultural markets used by economists at Iowa State to determine doubling of U.S. corn ethanol production from 2007 levels would eventually increase world corn prices by 40 percent, soybean prices by 20 percent and wheat prices by 18 percent.

"Suppose it's true that corn prices have increased 40 percent as a result of increased ethanol production. What effect has that had on food prices?" he asked.

Using USDA crop prices and the Consumer Price Index over a two-year span, Perrin said despite the 94 percent rise in corn prices and 167 percent rise in wheat prices, the CPI and its food component have increased only 6.5 percent from November of 2005 to November of 2007.

"Economic models are not perfect, but they give us some indication of what's going on," Perrin said.

Using the CARD-FAPRI model, the UNL professor said a 90 percent increase in grain prices would result in a 6.3 percent increase in the cost of meat, 3.5 increase in the cost of dairy and an overall food price increase of 1.8 percent.

Using USDA figures, meat would increase 8.3 percent, dairy 11.5 percent and the overall food price increase would be 12.8 percent.

Using Perrin's calculations, a 100 percent increase in grain prices would result in an overall food price increase of 3.2 percent.

"There's not that close of a relationship between grain prices and food prices," he said. "Grain is a small component of increase in food prices."

In a February publication of Cornhusker Economics, Perrin noted that as a fraction of the consumer's food expenditure dollar, the cost of corn used to produce that food is about 3.2 percent.

Thus, rising corn prices will not contribute much to higher food prices. A 40 percent increase in corn price will ultimately be passed on as a 40 percent increase in just 3.2 percent of the cost of food -- a final food cost increase of about 1.3 percent.

A far greater impact on food prices comes from the huge increase in world coarse grain consumption since 2001, along with higher energy costs.

Perrin said the ethanol industry is responsible for approximately 40 percent of grain consumption while the rest of the world is responsible for well over half of coarse grain consumption.

"Yes, ethanol contributes to food price increases. Yes, ethanol competes with food for resources," he said. "But it's much less than half responsible. The ethanol industry is partly guilty, only semi-guilty, for increasing food prices."

