

**STATEMENT BEFORE THE U.S. SENATE COMMITTEE ON HOMELAND
SECURITY AND GOVERNMENT AFFAIRS**

**Hearing on Fuel Subsidies and Impact on Food Prices
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Thank you, Mr. Chairman, for the opportunity to participate in today's hearing and to share my thoughts on the role that federal policies play in affecting the amount of corn ethanol that we produce and the impact these policies have on crop and food prices.

Many people are confused about the impact of federal ethanol policies. Much of this confusion is seemingly caused by people assuming that because government support was instrumental in bringing forth the ethanol industry, then a withdrawal of support would get us back to a time when the prices of corn, soybeans, and wheat were less than half of today's levels. The additional demand for corn from the ethanol industry has been a major factor in causing the price of corn to more than double in the last 18 months, from \$2.50 to more than \$6.00 per bushel. This fact gives us insight into the following question: What would happen to the price of corn if we were to eliminate the U.S. ethanol industry? But this fact does not give us any insight into what would happen to the price of corn, food, and gasoline if current federal biofuel policies were relaxed or even eliminated. We need to recognize that U.S. ethanol plants will not simply disappear with a change in U.S. ethanol policy. Plants will keep operating as long as they make more money operating (or lose less) than they would make by shutting down. Thus, a change in U.S. policy will not have a large, immediate impact on corn prices.

The three federal policies that I consider in this testimony are the Renewable Fuels Standard, the blenders tax credit, and the tariff on imported ethanol.

The 51-cent-per-gallon blenders tax credit is a direct subsidy given to gasoline blenders. The credit increases the willingness of blenders to buy ethanol. This increased demand increases the price of ethanol, ethanol profits, and production, the demand for corn, and the price of corn. The tax credit has greatly stimulated the growth of the industry.

The import tariff is a tax on imported ethanol. It has prevented the U.S. from importing large quantities of ethanol from Brazil except for a short time during 2006 when the phase-out of MTBE caused U.S. ethanol prices to skyrocket.

The Renewable Fuels Standard specifies minimum biofuels consumption levels for the United States. Mandated use rises from 9 billion gallons in 2008 to 10.5 billion gallons in 2009. These mandates can be met from either domestically produced or imported biofuels.

Given the level of concern about current crop prices, I first want to examine the short-term impacts of a policy change. By short term I mean the following: What impact would a change in federal policy have on the supply of ethanol and the market price of corn during the period September 1, 2008 to August 31, 2009? This period corresponds to the marketing year for the 2008 corn and soybean crops.

A focus on corn is warranted because it is the crop most directly affected by U.S. biofuel policies, and it is the crop that most determines the impacts on the cost of food because of its importance in determining the cost of feeding livestock. My graduate student and I have considered a number of different policy scenarios, but I want to focus on three today. These are to (1) waive the mandates, but keep the tax credit and the import tariff; (2) keep the mandates but eliminate the import tariff and the tax credit; and (3) eliminate all three.

Because both the blenders tax credit and the mandate increase the demand for ethanol, elimination of only one of these policies would have little impact because the other one would effectively keep the industry operating at close to current capacity. Elimination of the mandate would reduce expected ethanol production by about 4%, the ethanol price would drop by less than 2%, imports would fall by 18%, and the price of corn would be largely unchanged. Maintenance of the tax credit keeps demand for ethanol high, and the import tariff keeps imports down. Thus, recent calls for an easing of the RFS would do almost nothing to reduce food prices or ease the financial pain of the livestock industry.

The impact of eliminating both the blenders tax credit and the import tariff would be somewhat larger because increased imports would reduce the amount of domestic ethanol that would be needed to meet the mandate. Domestic ethanol production would decline by about 11%, imports would double, and the price of corn would drop by 7%. The price of ethanol would drop by 13%. The impacts of this policy change are not any larger because the RFS keeps total ethanol demand high and the supply of imported ethanol is not unlimited.

A rollback of all ethanol incentives and protections would have the largest impacts. Domestic ethanol production would drop by 21%. The loss of demand subsidies would cause the price of ethanol to drop by 18%. The price of corn would drop by almost 13%, to just below \$5.00 per bushel. We estimate that the drop in ethanol supply would increase blended fuel prices by about four cents per gallon because increased gasoline prices would more than offset the reduction in ethanol prices.

The livestock industry has been hard hit by the run-up in feed costs. But high gasoline prices combined with existing ethanol plants means that corn prices in the near term will remain well above historical levels even if the Renewable Fuels Standard, the blenders tax credit, and the import tariff were all eliminated. This is not to say, however, that a 13% drop in corn prices would not help livestock producers and, to a lesser extent, reduce food prices. A 13% drop in corn prices would reduce the cost of feeding beef cattle by 5% of revenue, hogs by 7% of revenue, eggs by 4%, and dairy cattle by 3% of revenue.

This drop in production costs would eventually translate into consumer prices that would be a bit lower than they otherwise would be.

The longer-term impact of a change in federal biofuels policy depends crucially on the price of crude oil and on the number of ethanol plants that come on-line under current incentives. If we were to eliminate all federal biofuels policies today, and future crude oil prices support wholesale gasoline prices of \$3.00 per gallon in the future, then ethanol production over the next five years would eventually increase to around 14 billion gallons, and corn prices would be about \$4.00 per bushel. A return of wholesale gasoline prices to \$2.00 per gallon would keep ethanol production at about 10 billion gallons and corn prices would fall to approximately \$3.60 per bushel. In contrast, sustained \$4.00 gasoline prices would result in \$5.00 corn, and 21 billion gallons of ethanol.

These results reveal two general findings. First, agricultural commodity prices and gasoline prices are now inextricably linked through existing ethanol plants and the knowledge of how to efficiently convert corn to transportation fuels. This link will not be broken unless corn ethanol production is somehow capped. A return to inexpensive feed is simply not going to occur unless crude oil prices fall dramatically and biofuels policy is substantially changed. Second, in the long run, if gasoline prices rise even higher and signal that we need alternative fuels, the corn ethanol industry will expand well beyond current projected levels even without government subsidies, unless production is somehow capped.

I would like to turn now to the impact of policy on the prices of other crops and food. Expansion of corn use implies a cutback in planted acreage and higher prices for other crops. The soybean crop is most affected by competition for land, with wheat affected by a much smaller amount. U.S. rice acreage is largely unaffected by corn prices because corn and rice are grown in different regions and it takes a fairly large incentive to move rice producers away from rice. The direct link that many people have made between U.S. biofuels subsidies and world rice prices is difficult to find.

Concerning food prices, we must remember that to a large extent Americans do not eat agricultural commodities. Rather, we eat food manufactured from commodities. My colleagues and I estimated that a 30% change in the price of corn, along with corresponding changes in the prices of other crops, would change home food expenditures by about 1.3%.

As I have discussed, altering U.S. biofuel policies will change the price of corn by much less than 30% in the short term. This suggests that changes in biofuel policies will not dramatically affect the price that Americans will pay for food. In the longer run, the price of corn and food will be determined largely by the price of crude oil.

Because the United States is a major exporter of corn, soybeans, wheat, and rice, a change in biofuel policy that affects U.S. prices will also affect international prices. Again, corn and soybean prices would be most affected by a change in federal policy. Wheat prices would be affected less. Rice prices would be largely unaffected.

Some may be skeptical of my estimates of the effect of a change in federal biofuels policy because of the huge run-up in wheat, rice, and feed costs over the last 18 months. But again, I have not tried to determine the impact of the ethanol industry on commodity prices. Rather, I am asking what would be the impact on commodity prices from a change in federal biofuel policies given that we are well on our way to having more than 11 billion gallons of plant capacity and that markets expect high gasoline prices for the foreseeable future. This combination of in-place capacity and high-priced gasoline implies modest impacts of a change in policy.

In conclusion, there is no doubt that the growth of the ethanol industry is an important factor in the run-up in agricultural commodity prices. But this does not imply that a change in federal biofuels policy would reverse this growth. If we continue to see crude oil prices in excess of \$100 per barrel, then there is little that Congress or the EPA can do in the short run to significantly reduce the price of corn short of an outright ban on producing ethanol from corn.