

**Written Testimony of Thomas Elam**  
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**On Behalf of the National Turkey Federation**

Chairwoman Boxer, Ranking Member Inhofe and members of the committee, I thank you for the opportunity to submit this written testimony. I am an agricultural consultant based in Carmel, Ind. My professional experience spans 38 years and includes service to the University of Illinois, the U.S. Department of Agriculture (USDA) Economic Research Service, the Elanco agricultural division of Eli Lilly, and eight years of professional agricultural consulting. I have studied and written extensively on the subject of biofuels policy and grain prices. I would like to offer an expert opinion on the impact of U.S. biofuels policy on food production costs, the U.S. economy, and U.S. energy and food security.

In summary, U.S. ethanol policy has drained the world's grain reserves, added little, if any real value to the U.S. economy, and has significantly raised the cost of U.S. and global food production. The current biofuels policy made the United States no more energy secure, but has substantially reduced food security. Effects of U.S. ethanol policy have occurred at a time when the global grain supply and demand balance was already leading to higher grain prices, and has added to higher food costs and prices.

Congress passed, and President Bush signed, in December 2007, the Energy Independence and Security Act. That legislation set new and ambitious mandates for use and production of biofuels, especially corn-based ethanol. In light of market realities that are very different from the assumptions of only three years ago, Congress now needs to re-evaluate the

2007 policy. However well-intended, policy has had the effect of boosting grain demand, increasing food production costs, but with little or no positive impact on the economy.

Beginning with the impact on the overall U.S. economy, the increase in ethanol production since 2007 has not increased economic activity. As a result of no impact on the overall economy, total employment has not increased as a result of ethanol mandates and subsidies. The reason for this lack of impact is that mandated ethanol production increases have displaced, and in some cases reduced, economic activity elsewhere in the economy.

Increased ethanol production has not increased the amount of auto fuel produced, miles driven or automobile production. It has replaced oil refining activity and gasoline sales. Similarly, the increased volumes of distiller's grains produced as a by-product of ethanol plants has not increased the animal feed supply, it only replaced some of the corn that was used to produce ethanol. Since 2008 total U.S. meat and poultry production has decreased 3.3 percent, costing the economy in reduced Gross Domestic Product (GDP) and employment. Reduced meat and poultry production means less feed produced, fewer jobs in meat and poultry processing plants, and fewer farmers needed to raise chickens, turkeys, hogs and cattle. Most of those losses occurred in small towns and rural areas.

Increased ethanol production has had no significant effect on farming jobs or economic activity. Corn and soybean acreage has grown, but at the expense of plantings of wheat, rice, dry edible beans and other food crops. Total U.S. harvested acreage of major food and feed crops since 1990 has hovered around 290 million to 292 million acres. However, major food crop harvested acreage has declined from 85.8 million acres in 1990 to only 59.0 million in 2010 (31%). Essentially all of the acres lost for food crop production have gone to corn and soybeans,

the two crops that supply feedstocks for subsidized and mandated ethanol and biodiesel. When biofuel advocates state that the U.S. policies have had no effect on food production they are apparently not looking at the reality of these massive acreage shifts that have reduced U.S. food crop production potential or the economic impact of those reductions.

Merchants and distributors of food crops have experienced reduced sales volumes and job opportunities. As already mentioned, fewer farmers are also needed to produce a smaller supply of meat and poultry.

Farmland owners have benefited enormously from higher land prices, but land rental costs have risen for grain farmers who actually plant and grow crops. Therefore, the benefits of higher grain prices have gone to land owners, not the hard working farmers who often rent land. In economic terms we refer to the increase in land prices as a “windfall gain.” The windfall gain has not increased production capacity by making more land available, or served any other useful economic purpose. Increased land prices have brought no more land into cultivation for one simple reason; we are already farming all the good land that is available.

Biofuels add few, if any, jobs or sales volume in fuel distribution and retailing. All they do is replace gasoline and diesel that was already moving through blending stations and retail fuel pumps. To the extent that ethanol may have a small positive impact is due to the fact that ethanol reduces fuel economy, resulting in a few more motorist trips to gas stations. I find it difficult to regard this as a benefit.

Ethanol proponents have cited reduced petroleum imports as an economic benefit to the economy. The Renewable Fuels Association has stated that ethanol displaced 440 million barrels of 2010 petroleum imports. That is not possible. A barrel of petroleum contains 42

gallons. The claimed 440 million barrels is 18.4 billion gallons. In 2010, the United States produced 13.23 billion gallons of ethanol. Since ethanol has only two-thirds of the energy of gasoline, the petroleum equivalent is only 8.86 billion gallons, and that excludes a significant amount of petroleum used to produce ethanol. It simply is not possible for the energy in 1 gallon of ethanol production to replace more than 2 gallons of gasoline energy.

If the United States did displace 8.86 billion gallons of petroleum in 2010, the value would be about \$16 billion. However, I have calculated that the system-wide 2010 cost impact of the ethanol policy was about \$25 billion for corn alone. Including the indirect impact on wheat, soybeans and other crop prices, the impact is considerably larger. Any benefit flowing from lower fuel imports is swamped by higher costs elsewhere in the economy. The net result is a loss of real economic activity and jobs.

Has the biofuels policy helped increase U.S. “energy security” by lowering petroleum imports? The answer is an unqualified no. As recent events demonstrate, the United States quite obviously is exposed to global oil markets and prices. In fact, even if the United States somehow managed to eliminate the need to import any oil from the Organization of the Petroleum Exporting Countries (OPEC), we would be no more secure than we are today. The U.S. oil price is the world price. Political issues in the Middle East that affect the world oil price will affect U.S. markets, even if we don’t buy a single barrel of OPEC oil.

In fact, “energy independence” is a phantom goal as long as the United States engages in global commerce. If by some miracle we manage to eliminate all energy imports, a spike in global oil prices would lead to U.S. producers increasing exports, lowering U.S. energy supplies,

higher prices, and less energy available for U.S consumption. We simply cannot be “energy independent” and a trading nation at the same time.

Next, I would like to discuss the impact on the food sector. How did ethanol policy cause grain and other commodity prices to increase? The policy has reduced the supply of grains available for food production. Including the tonnage of distiller’s grains (DG) production added back to the U.S. feed supply, net U.S. feedgrain production available to users other than ethanol plants has declined precipitously since 2007. From the 2007 total U.S. feedgrain crop there was a net of 298 million metric tons (mmt) of grain and DG left after ethanol use. From the 2010 crop there will only be 250 mmt left for all users after ethanol production. The United States is covering a portion of that 48 million tons of loss volume by drawing down the feedgrain stocks from 48 million tons last year to only 21 million on Sept. 1, 2011. That 21 million ton figure is barely enough to keep the grain supply system running, and is the basic reason that corn prices are more than \$7 per bushel, and also extremely volatile.

Since the use and production of ethanol enjoys the protection of the Renewable Fuel Standard (RFS), feed and food users have been forced to make the entire adjustment to lower net grain supplies. USDA is forecasting that 2011-2012 U.S. feedgrain and soybean supplies will remain very tight, and prices high and volatile. Absent alterations in biofuels policy, U.S. food production costs will likely continue to increase and production is likely to decline further.

We have actually reached a point where any significant weather issues that would effect the 2011 U.S. grain crops will have potentially devastating implications for U.S. food prices and security. The U.S. reserve stocks are depleted. The United States cannot fall back on them again as we did this year. Another increase in the corn-based ethanol RFS is mandated for 2011 and

2012. Already, the 2011 U.S. wheat crop is experiencing major drought problems in the High Plains. We may be just a few months away from food shortages and much higher food prices.

Aggravating an already reduced net supply of grains, for technical reasons we are nearing the upper limit of U.S. DG feed use. The result is that U.S. DG exports are increasing rapidly, reducing further the feed supply available for U.S. meat and poultry production. Future DG supply increases from increased corn-based ethanol production are likely to be going to export channels, even further reducing the net supply of U.S. feeds.

We have also had a significant affect on global grain markets and food costs. Including DG production effects, U.S. ethanol production will withdraw a net of 3.9 percent from the 2010 global grain crop versus 2.4 percent for the 2007 crop. I have estimated that the effect of this net reduction in 2010-crop grain availability for food production is about \$60 per metric ton. The estimated impact of U.S. ethanol policy on the cost of global grains alone is \$130 billion. Including indirect price impacts on other food commodities the effect is much larger. A portion of the political unrest in Africa and the Middle East can be attributed to higher food costs. In a very real sense, the U.S. ethanol policy that was designed to lower our exposure to global oil markets and Middle East political developments has had the exact opposite effect.

Finally, I would like to offer an opinion on what needs to be done with U.S. energy policy.

The Volumetric Ethanol Excise Tax Credit (VEETC), or blender's credit, is not required to support ethanol production. However, it does add to the U.S. federal deficit and food and energy production costs. The RFS sets an effective demand floor for U.S. ethanol production and use. The VEETC is redundant and should be eliminated or phased out over a short time

period. Removing the VEETC credit would help rein in U.S. and global food price inflation and reduce the federal deficit, but still would not result in corn prices falling to anywhere close to pre-2008 levels.

Limited expansion capability for corn production together with the expanded RFS have driven net feed supplies and stocks available for uses other than ethanol to critically low levels. If the VEETC is eliminated, the cost of feedgrains for all users, including ethanol refiners, will fall. However, that alone does not solve the physical imbalances that have reduced the net supply of feedgrains available for food production, and substantially reduced U.S. acreage of food crops. In light of the realities of grain supply and demand, Congress should also re-evaluate the corn-based RFS schedule for 2011 through 2015. A fair and balanced approach for the overall good of the U.S. economy would give increased weight to food production costs and food security, and less weight to biofuel production. It is further suggested that if there is to be an RFS, it should be flexible and based on market conditions.

Thank you again for the opportunity to contribute to this critically important debate.