The Fertilizer Institute

Nourish, Replenish, Grow

Select Committee on Energy Independence and Global Warming
Ford West
President, The Fertilizer Institute
Answers to Committee Questions

1. **In the last decade, approximately half of the nitrogen industry has shut down as a result of high natural gas prices and foreign competition. American farmers import 55% of their nitrogen as a result of this leakage. Do you see this trend continuing? How will this reliance on foreign sources of fertilizer affect American agriculture?**

   A: Cap and trade policy has the potential to have a devastating impact on the remaining U.S. nitrogen fertilizer industry. Since the introduction of the American Clean Energy and Security Act of 2009 (H.R. 2454) in the House, The Fertilizer Institute has been expressing serious concerns with the impact of this legislation on the fertilizer industry, its farmer customers and the U.S. food supply. During the past decade, high natural gas prices had a devastating impact on the U.S. nitrogen fertilizer industry. We are particularly concerned that a consequence of this legislation will be higher energy prices which will drive the remaining U.S. nitrogen production offshore. In this event, U.S. food production would rely solely upon our ability to secure fertilizers from the countries of the Arab world, Venezuela, China and Russia.

2. **In your written testimony, you discussed how fuel switching threatens the nitrogen industry. What other costs would a cap and tax system create for the industry? Considering that fertilizer is traded in a global commodity market, how would these additional costs impact the domestic fertilizer's ability to stay competitive?**

   A: In 2008, the nitrogen fertilizer industry spent $3 billion on natural gas. Each $3 MMBtu increase in the cost of natural gas raises nitrogen fertilizer production costs by over $1 billion. These are not costs we can pass on to our customers as our industry is a price taker in the global fertilizer market.

   Historically, the cost of natural gas has exacted a heavy toll on America's nitrogen fertilizer producers and the farmer customers they supply. Specifically, since 1999, the U.S. nitrogen industry has closed 26 nitrogen fertilizer production facilities, due primarily to the high cost of natural gas. Further volatility and price increases in the natural gas market threaten the continued operation of the remaining U.S. nitrogen production plants.

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3. **We have heard a lot of discussion on the need for energy independence from foreign oil. American farmers import over 55% of our nitrogen. How will cap and trade impact our reliance on foreign sources for American food production and what does this mean to our food security in the U.S.?**

   A: Fertilizer is responsible for 40 to 60 percent of our food supply. Currently, only 30 nitrogen plants are still operating in the United States and over 55 percent of the U.S. farmer's nitrogen fertilizer is imported. Of this imported fertilizer, 82.7 percent comes from countries without climate change policies in place to regulate carbon and a majority of these countries are those from whom we are striving for energy independence.

   Further, last year, TFI commissioned a study on the impacts of high energy costs resulting from a cap and trade system on American farmers. Using the Lieberman Warner bill as a baseline and EPA's moderate economic analysis of the impacts of the legislation on energy prices, Doane Advisory Services measured the production cost increases for eight farm commodities. Doane economists found that any such cap and trade system would add $8.5 - $17 billion to total crop and livestock production costs, resulting in a significant decline in farm income. U.S. Department of Agriculture (USDA) data shows that energy costs are already dramatically impacting farm income and this legislation could further negatively impact U.S. farmers' ability to make a living.

4. **Mr. West, as I mentioned in my opening statement I am a farmer, and so am very familiar with fertilizer and your industry. As a farmer, how much more do you think it will cost me to buy fertilizer for my farm under a cap and trade system as it's currently described?**

   A: The fertilizer industry makes an essential contribution to our food supply and thus to our nation's security. TFI member companies supply nitrogen, phosphate, potash and other plant nutrients to farmers who grow food for America's dinner tables. Fertilizers replenish our soils in harvest after harvest to promote healthy and abundant crops for food production. Those nutrients are removed with the harvested crop and help provide nutritional value to the foods we eat. These nutrients must be replaced to ensure each year's crop grows a nutritious supply of food.

   Because the price of fertilizer is determined by many supply and demand factors related to both the U.S. and global market, it is impossible to predict future prices. Last year, TFI commissioned a study on the impacts of high energy costs resulting from a cap and trade system on American farmers. Using the Lieberman Warner bill as a baseline and EPA's moderate economic analysis of the impacts of the legislation on energy prices, Doane Advisory Services measured the production cost increases for eight farm commodities. Doane economists found that any such cap and trade system would add $8.5 - $17 billion to total crop and livestock production costs, resulting in a significant

decline in farm income. U.S. Department of Agriculture (USDA) data shows that energy costs have already dramatically impacted farm production expenses and income. As energy costs increased, U.S. production costs of corn, soybeans, wheat, cotton, rice, sorghum, barley and oats exhibited their largest increase in history, in both absolute and percentage terms, over the period 2000-2007. This legislation will further negatively impact U.S. farmers' ability to make a living.

5. **You mention that farmers should be able to offset additional crop production costs with the best management practices? What are those best management practices you refer to? How do you see those being institutionalized?**

The challenge for agriculture today is to produce more food on limited arable resources. In fact, the Food and Agriculture Organization has indicated that agriculture must increase food production by 50 percent by the year 2025 and double it by 2050. If a cap and trade system is enacted in the United States, it is imperative that American farmers are able to partially offset these additional crop production costs. Farmers should get credit for their very important role in the reduction of climate change related emissions. However, it is equally important that farmers aren't burdened with significantly increased input costs that would far exceed any offset credits they receive under the bill.

It is also crucial that the language regarding commercial fertilizer in the House passed bill be revised in the Senate bill. TFI is extremely disturbed that the House passed bill incentivizes several agricultural practices that will likely have little impact on reducing GHGs and in some cases may increase GHG emissions. We urge the Senate to act quickly to ensure that science is the basis for any grower incentives. GHG emissions can come from all types of nitrogen sources applied to the soil, regardless of whether these are applied as commercial fertilizer or manure. Whether a farmer chooses to use commercial or organic fertilizer sources, BMPs are key to managing climate related emissions.

Not only can low till and no till farming techniques help increase the carbon content of soils and reduce erosion, there are also practice based approaches such as Canada's Alberta Protocol, which is based on fertilizer best management practices (BMPs), that demonstrate farmers' capacity to reduce nitrous oxide emissions from the field. The Alberta Protocol is a peer reviewed set of fertilizer BMPs based on the 4R nutrient stewardship system, which promotes the use of the right product applied at the right rate, right time and right place. These BMPs have the potential to not only increase agricultural yields but they can also enhance fertilizer use efficiency, significantly reduce emissions of greenhouse gasses (GHGs) and improve water quality. Social responsibility and sustainability are permanent features of the fertilizer industry's goals and we believe that using practices that increase the profitability and productivity of U.S. farmland while benefiting the environment makes sense.