



# The Fertilizer Institute

Nourish, Replenish, Grow

Testimony of Ford B. West  
President, The Fertilizer Institute  
Before the  
U.S. House Select Committee on Global Warming  
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Good morning Chairman Markey, Ranking Member Sensenbrenner and members of the committee. I am Ford West, President of The Fertilizer Institute. The Fertilizer Institute is the leading voice for the nation's fertilizer industry and I am pleased and appreciative of the opportunity to provide you with our industry's perspective on climate change policy.

Fertilizer helps feed the world by increasing farmer's yields by as much as 40 to 60 percent. Specifically, the fertilizer industry supplies nitrogen, phosphate, and potash to farmers who grow food for America's dinner tables. Nitrogen is made using natural gas for which there is no substitute. This means that the nitrogen fertilizer industry is highly dependent on a reliable and reasonably priced supply of natural gas. Phosphate and potash are minerals mined from the earth and these processes also require a great deal of energy.

The fertilizer industry has gone to great lengths to advocate environmental stewardship and many of our members participate in voluntary climate change markets. We believe that it is important to implement a climate change policy that preserves our ability to compete as manufacturers while reducing green house gases to protect the environment.

All sectors of the fertilizer industry will be impacted by any climate policy, but I will focus today's comments on our nitrogen sector which is most vulnerable to the impacts of a cap and trade system. As I will explain, any cap-and-trade proposal will place our industry at a serious competitive disadvantage compared to global fertilizer producers in countries like China, Russia and Venezuela and likely will force the domestic fertilizer industry overseas to countries with no carbon reduction policies.

All crop producers rely on our products to produce food, feed, and now fuel, with corn being the nation's largest fertilizer consuming crop.

The nitrogen industry will be impacted by a cap and trade system because it is uniquely sensitive to the price of natural gas as it is a feedstock or input required to make nitrogen. We use natural gas as an ingredient in a fixed chemical process that combines nitrogen from the air and hydrogen from the gas to produce nitrogen fertilizer, in a form that the plant can take up. Outside of changing the laws of chemistry, there is nothing we can do to change this process and, consequently, as much as 90 percent of the cost of producing a ton of ammonia, the building block for all other nitrogen fertilizers, can be tied directly to the price of natural gas. This makes the nitrogen industry one of the most energy intensive manufacturing processes that exist.

Between 1983 and 2006, the industry reduced the amount of natural gas used to produce a ton of ammonia by 11 percent. With that energy efficiency came carbon reductions. The U.S. EPA estimates that between 1990 and 2006, U.S. nitrogen producers reduced their greenhouse gas emissions by 4.5 million tons of CO<sub>2</sub> equivalent. While our member companies are committed to additional energy efficiency projects, there will soon come a point where, due to the constraints of chemistry, the efficiency gains will be limited.

Historically, the cost of natural gas has exacted a heavy toll on America's nitrogen fertilizer producers and the farmer customers they supply. The resulting impact on the American fertilizer industry has been unprecedented and threatens to irreversibly devastate the U.S. nitrogen fertilizer manufacturing industry. The U.S. industry now supplies a little less than one-half of U.S. farmers' nitrogen fertilizer needs – a very notable departure from a domestic nitrogen fertilizer industry which typically supplied 85 percent of farmers' nitrogen needs during the 1990s.

Specifically, since 2000, the U.S. nitrogen industry has closed 26 nitrogen fertilizer production facilities, due primarily to the high cost of natural gas. Currently, only 29 nitrogen plants are still operating in the U.S. and presently 55 percent of the U.S. farmer's nitrogen fertilizer is imported. Of this imported fertilizer, 82.7 percent is made up of 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.

U.S. farmers are becoming increasingly dependent on foreign sources of fertilizers from places that offer cheap natural gas like the Middle East, China, Russia and Venezuela. In 2007,

U.S. farmers imported 314 thousand tons of nitrogen materials from Libya; 477 thousand tons from Egypt; 1.8 million tons from the Middle East; and over 3 million tons from countries of the former Soviet Union. These countries have discovered the opportunities associated with offering an attractive combination of reduced manufacturing, labor, natural resources, and environmental costs compared with that of the United States.

The fertilizer industry has grave concerns that our remaining domestic nitrogen production will not stay operational through any transition period of a cap and trade system where utilities turn to natural gas as an alternative for generating electricity and fertilizer producers are forced to buy emission credits on the open market. It is important to understand that fertilizer is a global commodity traded in a world market. In addition to the nitrogen producing countries I listed earlier, which are already at a competitive advantage over U. S. producers thanks to their easy access to supplies of natural gas and reduced manufacturing costs, U.S. fertilizer producers are also competing against producers in the European Union and Australia, whose governments have adopted or drafted policies that aim to fully protect their energy-intensive/trade-intensive industries. American policy that would increase demand and thus drive the cost of natural gas up will further handicap our domestic production and lead to more plant closures. This should be of concerns, because in the rural areas where our plants operate, the fertilizer industry is usually the highest paying employer. The average nitrogen plant employs 150 – 200 people with an average salary of \$75,000. These are good jobs and these facilities give a great deal back to their communities.

Moreover, reduced domestic production of fertilizer will only increase costs to American farmers since they will be more exposed to price volatility and product availability resulting from importing such a great deal of our plant nutrient needs.

Increased input costs for farmers are another concern under a cap and trade system. 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 to energy prices resulting from the legislation, Doane Advisory Services measured the production cost increases for eight farm commodities. Doane economists found that any such cap and trade system would add \$6 to \$12 billion to total crop production costs leading to a significant decline in farm income. If a cap and trade system is enacted in the United States, it is imperative that American farmers are able to offset these

additional crop production costs with the ability to earn soil carbon sequestration credits through science-based best management practices.

Farmers should get credit for their very important role in the reduction of climate change 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 the Alberta Protocol, which is based on fertilizer best management practices, that demonstrate farmers' capacity to reduce nitrous oxide emissions from the field. The Alberta Protocol is a peer reviewed set of fertilizer best management practices 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 best management practices have the potential to not only increase agricultural yields but they can also enhance fertilizer use efficiency, significantly reduce emissions of GHGs and improve water quality.

Congress must tread cautiously and consider all ramifications and unintended consequences. Fertilizer is a strategic commodity and U.S. food security cannot be attained without the use of commercial fertilizers. We have already witnessed the impact reliance on foreign sources of oil have had on U.S. consumers and it is frightening to imagine the uncertainties that could result if U.S. policy made us completely reliant upon some of the same foreign sources for our food production.

I would like to thank you for the opportunity to present the fertilizer industry's concerns related to climate change legislation. I appreciate your interest in our industry's needs and I am happy to answer questions at the appropriate time.