

WORLD FERTILIZER DEMAND AND SUPPLY

Donald A Horneck¹

The opinions expressed here are mine and mine alone, good luck on making your 2012 fertilizer decisions.

Pre- 2008

Prior to 2008, fertilizer prices had been relatively stable. When you went to your bank looking for financing you were relatively assured that budget predictions would not be too far off. Differences in fertilizer costs from year to year were hardly recognizable. There was a slight trend upward but not much more than that. Volatility was relatively nonexistent. The USA historically had produced much of its nitrogen fertilizer, upwards of 90%, and was not reliant on the international markets for nitrogen supply. With natural gas prices much cheaper in many other places in the world, nitrogen production in the USA has marketed declined, where today less than 50% of the nitrogen used in the USA is produced within our borders.

2008

Fertilizer prices have been in a historic flux since 2008. In 2008 we saw fertilizer prices increase to historic highs with urea price peaking over \$1000 dollars per ton. Virtually all fertilizers reached historic highs during this period. A product like elemental sulfur used for sulfur fertilization and as a soil amendment for pH and sodic soils increased in price \$100 per ton in a single day. To a grower it felt like prices were being increased by manufactures just because they could without any real justification. Some crops like potatoes, a high fertilizer requirement crop, became unprofitable just because of fertilizer price increases. Countries like China put a fertilizer export tariff on urea to keep it within country and everybody thought the ride up would be never ending so everybody filled their warehouse going into winter.

More people, better economic times in China, all leads to better diets with more protein with overall food demand increasing as well as food quality. The world has 7 billion people in it and we are adding 250,000 people a day. Another quarter of a million people today means more food is needed than yesterday. Where this food will come from is a continual question. Might plat genetics help? Yes, but no matter what is grown it will all require some fertilizer inputs. These inputs will be supplied by fewer companies then in the recent past. So long term the prospect for fertilizer prices is good if you are a share holder of Mosaic, Agrium etc., no so good if you are a purchaser.

¹ Donald A. Horneck, Extension Agronomist, Oregon State University, Hermiston and Corvallis. Email: don.horneck@oregonstate.edu. **In:** Proceedings, 2011 Western Alfalfa & Forage Symposium, Las Vegas, NV, 11-13 December, 2011. UC Cooperative Extension, Plant Sciences Department, University of California, Davis, CA 95616. (See <http://alfalfa.ucdavis.edu> for this and other alfalfa symposium Proceedings.)

2009

After price increases in 2008 fertilizer prices reversed themselves and came crashing down with the credit crunch that effected markets around the world. This caught virtually every fertilizer supplier by surprise. Many took multimillion dollar hits on their inventory. Nitrogen fertilizers such as urea which had been purchased at the peak of the market in the fall were now priced at a vastly lower value the spring of 2009. Dealers held inventory that they had paid \$800 or more for a ton of urea which now had a value of under \$400. In most years a fertilizer barn has made you money. In the spring of 2009 it lost you money, the bigger the barn the more money you likely lost. Compounding the issue were growers unwilling to buy nitrogen at any price, further depressing prices. Some dealers tried to hold onto their high priced inventory, but in the end this cost them even more money because they lost more sales than they would have otherwise made. The ones that fared the best were those that wrote off their losses early and re-stocked with fair market valued fertilizers. They lost money but were at least back in the game. Holding high priced inventory generally just lost dealers more money, because a few were selling at current price. Growers were not feeling too sorry for the fertilizer industry and were not willing to pay much more than fair market value. Not having a full fertilizer storage facility saved you money during 2008-9 winter and allowed a dealer to be on the street at a much lower price than a competitor with a full warehouse. Having a warehouse when prices are rising makes money as inventory can be sold for market price and earn more money. However, in declining prices the inventory needs to be sold quickly to minimize losses. With diminished demand this was difficult to do.

Current

The years 2008 and 2009 were very different and 2010 was an average year with no high price spikes just an overall gentle price increase. This brings us to the 2011-2012 cropping years. Prices in 2011 particularly for phosphorous have had a large price run-up. Current prices for a fertilizer like 11-52-0 are nearly \$880 dollars depending the market one is buying in. Nitrogen prices are also high. We are sitting in some ways in a very similar place as 2009. Prices are high and the world is teetering on another recession with PIIGS and the precarious position of the EU. Will Italy fail, or Greece or? These economic factors are creating a fear factor in the market and until some resolution, e. g. default, there is little hope of certainty in any market. Austerity sounds like a good thing, but lower wages, benefits... sounds deflationary to me, everyone has less money to spend. These types of financial gyrations also have an effect on the dollar. Currency swings have an effect of prices on imported materials. As the value of the dollar increases because of perceived security in the USA imports become cheaper, however if the EU fights its way out of their mess more international scrutiny may be given to our own financial problems, which is likely to devalue the dollar relative to many other currencies.

With all the uncertainty and the high price of fertilizer this fall there is little inventory at the local level. When looking at what happened to local suppliers in 2009 there is quite a bit of a fear factor into buying expensive inventory and having it deflated like in 2009. Commodity prices have lost nearly 1/3 of their value and looking at the stock prices for fertilizer companies such as Mosaic (MOS) and Agrium (AGU) the market thinks that there is a corresponding soft side to fertilizer prices. The nitrogen exception is UAN solution. Because of low inventories and some shutdowns supply is tight and supply is not likely to recover for at least a year.

The one fertilizer that really stands out is potash. India in August placed an order for 1.2 million tons of potash at \$490. There are some longer term contracts in the market in the \$530 a ton range. So the outlook for potash is firmer than most of the other fertilizers.

Overall the fertilizer market is flat, prices are expected to hold in current ranges or slight decline to bullish for UAN and potash.

Good luck with your purchases for 2012