



Arbor Acres

Broiler Economics Bulletin

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Volume XV No. 1
February 2007

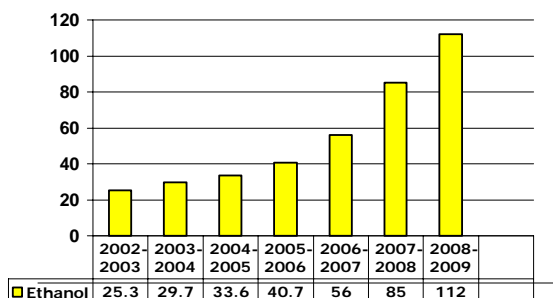
Unprecedented Corn (Maize) Demand Shock

A demand shock created by the rapidly accelerating increase in the use of corn for the production of ethanol is creating turmoil in the world grain commodity markets. As a result, feed and food prices are rising worldwide. If current policies continue, C. Ford Runge and Benjamin Senauer at the University of Minnesota estimate that the number of hungry people worldwide will increase by 50% from 830 million to 1.27 billion in the next 12 years. The subsidized use of corn to produce ethanol is currently being actively pursued in several countries including, most notably, the United States.

Although ethanol policy is likely to change once the negative consequences become widely understood, the learning curve is slow and may take a few years. Ethanol policies are unusually popular politically. An understanding of the unintended consequences may come only after a worldwide food crisis.

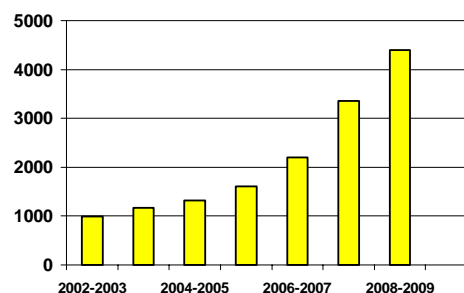
As can be seen on the following chart the *increase* in the use of corn for ethanol in the US alone is doubling every year from 7 MMT last year to 15 MMT this year and 30 MMT next year. For comparison Argentina, the second largest exporter of corn in the world, produces 20 MMT in a good year. Between 2005 and 2008 the increase in the use of corn for ethanol in the US will total 72 MMT or 3 billion bushels. This includes only ethanol plants now in operation and those under construction. New plants that have been recently announced will add to the total. Ten new plants requiring 10 MMT of corn per year were announced in just the first 10 days of 2007.

U.S. Corn Use for Ethanol in MMT



Ethanol Use of Corn

Millions of Bushels – U.S.

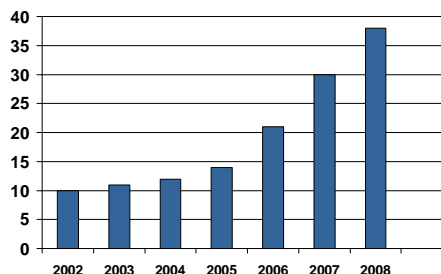


The use of corn for ethanol is now both significant and accelerating accounting for 14% of the 2005-2006 US harvest, 22% of the 2006-2007 US harvest and 30% of the 2007-2008 harvest. The percentage of the harvest is important because higher percentages lead to higher and more volatile prices.

It is inevitable that the export of corn from the US will decline given the accelerating massive increase in domestic use. This year will mark a watershed in the US as the use of corn for ethanol surpasses the export of corn. Next year and in following years, if policy is not changed, exports of corn from the US are likely to decline.

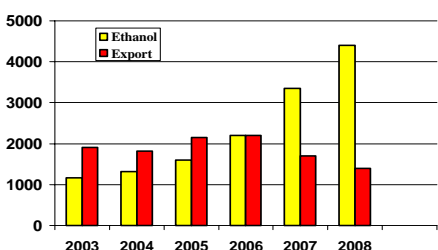
As a result of the rapidly accelerating use of corn for ethanol, inventories are projected to fall to minimal levels at the end of this crop year (August 31, 2007). The anticipation of low inventories already caused corn to rise from \$80 to \$160 per ton in Chicago and from \$100 per ton to \$200 per ton in most corn importing countries. The price could rise higher. Given the tight inventory and soaring demand, the price could spike to \$300 per ton this year if the US crop is anything less than record breaking.

Ethanol Percentage of the US Corn Crop – Plants under construction and 12 Billion bushels in 2008



We are witnessing the consequences of a demand shock which will permanently increase the US domestic use of corn and significantly increase the world price of corn and all sources of food and feed energy. No grain or food will be exempt from the general increase in cost and price. In contrast to a supply shock such as a drought which comes and goes, this ethanol demand shock will lead to a long term higher average price of corn. The price will have to increase enough to pull land out of other crops and out of marginal crop land as well as reduce the use of corn by animal agriculture and human consumption. Much of the land will be taken out of soybean production which will increase the price of soybeans.

Corn Export and Ethanol Use Projection
Millions of Bushels - US

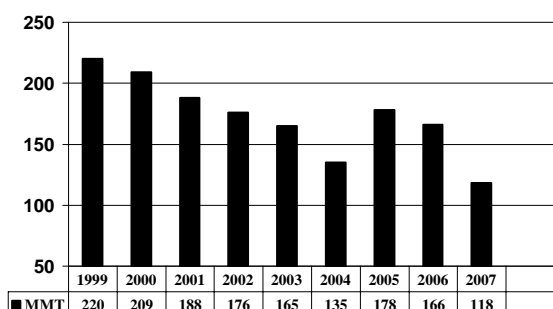


World Coarse Grains Situation

World coarse grain (corn and sorghum primarily) prices are heavily influenced by events in the US. No country or region is yet providing a counterweight to the US in the production of corn. The world currently depends on the US for over half of all exports of corn. The US this year will export 56 MMT of corn. The second largest exporter of corn, Argentina, will export only 9 MMT and the Argentine government has temporarily suspended the approval of additional exports.

The world's inventory of coarse grains fell for five years in a row reaching a low level in 2004 before the record US corn harvest in 2004. After a respite of two years, world inventory will fall below the levels of 2004 this year even with a near record harvest in the US. As can be seen on the nearby graph the world ending inventory of coarse grains in 2007 is projected to be only 118 MMT. With this backdrop of tight supplies, world corn prices will inevitably rise.

World Coarse Grain Ending Inventory - MMT



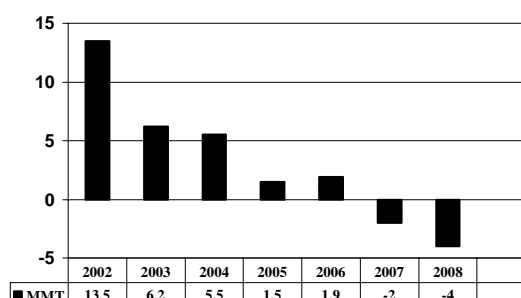
Corn and China

As is the case for many commodities the situation in China must be appraised in order to make any kind of final judgment. China appears to be moving from being a net exporter to a net importer of corn partly due to the increased use of corn in China for ethanol production. The net export of coarse grains from China is less than 2 MMT this year. China is likely to become a net importer next crop year. The swing from net exporter to net importer of coarse grains on the part of China is significant and will lend support to the world increase in the price of corn and all other grains.

Corn users can take solace in the fact that increased prices will stimulate increased corn production around the world thereby eventually limiting the rise in corn prices. The potential is still great for increasing yields in many countries, most particularly in China. In addition, countries such as the Ukraine, Brazil and Russia are nowhere close to the amount of land that could be dedicated to corn production. Corn genetics are improving as well.

Ethanol supporters suggest that massive increases in corn production around the world will quickly offset the increase in ethanol demand. Most economists and agricultural experts are skeptical of this claim despite the undeniable potential for increased corn production. It will not take long for the truth to emerge one way or the other. The direct consequences of ethanol policy can be seen in recent demonstrations in Mexico brought on by the increased price of corn tortillas. If world food prices rise significantly as most economists predict, the uproar will bring policy changes. Widespread hunger created by the unlimited and subsidized burning of food is probably not a good idea.

Net Coarse Grain Exports - China

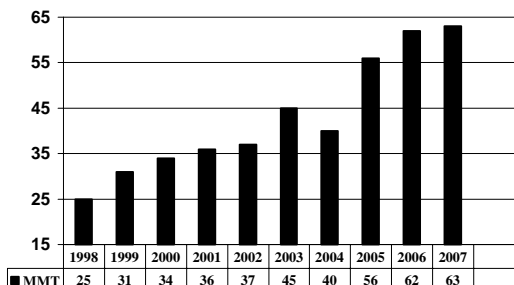


Soybeans

In contrast to the world corn situation, the world soybean situation is somewhat more favorable for the poultry industry for two reasons. First, one country does not dominate the export of oilseeds. Rising soybean production in South America combined with continuing large levels of production in North America has led to high levels of exportable surpluses in both the northern and southern hemispheres of the Americas. North and South America divide up the lion's share of world trade in soybeans and soybean meal providing stability. As an added bonus the harvests are 6 months apart.

Another reason why the world oilseed situation is favorable to users is that the distiller's dried grain (DDG) by-product of the production of ethanol in the US is a protein substitute for soybean meal. Therefore, the rapidly rising production of DDG's in the US will tend to lower the price of soybean meal, all else being equal. Even the production of bio-diesel made from soybean oil will not necessarily increase the price of soybean meal. Meal is the by-product after the oil is extracted.

World Ending Inventory Of Oilseeds



One indicator of the future price behavior of a commodity is the current estimate of ending reserves. In the case of oilseeds (soybeans are the biggest percentage of world oilseeds) world reserves have been growing steadily for the last eight years with a decline only in 2004. This year reserves will be stable at about 61 MMT. With good reserves and balanced production from North and South America, the price of soybean meal is likely to remain relatively stable. Nevertheless, soybeans and soybean meal will rise in sympathy with corn and other grains as land is shifted from soybeans to corn.

What Can be Done at Poultry Production Companies?

Corn

Corn seems likely to be headed for a permanently higher price. Instead of averaging \$1.90 per bushel on the farm in the US as it did in 2005, corn is likely to average between \$3.50 and \$4.50 (\$140 to 180 per MT) on the farm in the US in the next few years. Importing countries are likely to pay between \$180 and \$220. It is too late to hedge for the average corn prices that will be seen in the next few years. Corn prices have already reached the average price for the next few years. However, corn buyers should be aware of the possibility of temporary spikes to even higher levels.

Corn prices in Chicago are likely to reach record prices at some point in the next few years (\$7.50 per bushel or \$300 per MT) if the combination of an increasingly heavy burden of corn use for ethanol use combines with a weather problem. Nimble hedgers may be able to avoid the short term pain when corn prices reach high levels.

Soybean Meal

Although soybeans will fluctuate less violently than corn, it will rise in sympathy with corn prices because high corn prices will shift millions of acres from soybean to corn production in the next two years. If the historical relationship between corn and soybeans is maintained, a \$4 per bushel price of corn will eventually result in a \$9 per bushel price of soybeans (\$160 per ton of corn and \$360 per ton of soybeans).

Soybean meal (SBM) in Chicago was as low as \$160 per short ton (\$176 per MT) last year, a bargain. In the next few years I would expect the range for SBM to be between \$200 and \$250 per short ton (\$220 to \$275 per MT). Therefore any price of soybean meal less than the equivalent to \$200 per short ton in Chicago would appear to be deserving of the attention of hedgers. Price spikes by soybean meal will occur in concert with corn and other grains. However, the percentage increase in the price of soybean meal should be less extreme given the different fundamentals of soybean meal supply and demand.