

The Milkweed

Dairy's best marketing info and insights



Issue No. 331, February 2007

By December 31, 2007, Global Corn Reserve Could Be Only 2.5 Days' Use

by John Bunting

Starkly stated, if projections from USDA's Foreign Agriculture Service on global corn production and demand for 2007 prove accurate, the world faces close to the lowest carry-over of corn supplies in modern history.

USDA has projected 2007 global corn production at 687.2 million metric tons. Meanwhile, global demand for corn in 2007 is forecast at 725.8 million metric tons. The shortfall of production to demand: 38.6 million metric tons.

(One qualifier must be acknowledged in this discussion: lack of reliability of data for China's corn production. One USDA economist explained to *The Milkweed* that China's corn production data can vary by as much as 50 million metric tons, plus or minus.)

Projecting data in the form of "millions of metric tons" makes it tough to put a human face on this most significant food statistic. So let's try to define the projected corn reserve decline on a per capita basis, world-wide.

World population is estimated at 6.573 billion. As calculated in *The Milkweed* last month, the global carry-over of corn stocks at the end of 2006 equaled 30 pounds per person.

But when the 2007 shortfall of corn production to demand is factored in, the 2007 global carry over of corn is reduced to about 16-17 lbs. per person. That's only a reserve of 2.5 days' of corn—virtually nothing. Per capita, the world uses about 6.6 pounds of corn per day.

If USDA projections for 2007 corn demand/production are in the ballpark, that means so-called "high" corn prices are likely a reality that will last several years—if not into perpetuity. Corn is the major "driver" in global food production, nationally and globally.

Mexico - corn's birthplace - sees food riots

Corn was grown in the Americas, perhaps 9,000 years ago, long, long before the great pyramid was built. Now, according to some, it is the leading grain crop in the world.

Most authorities think corn originated in Mexico. Mexicans refer to themselves as the "corn people". Corn tortillas are a staple of life. Tortillas are also a very healthy food. The addition of lime to corn releases niacin and other micronutrients.

Recently there have been "tortilla riots" in Mexico over the escalating price of tortillas. Tortilla prices have doubled in price to about \$.45 per pound compared to a year ago. President Felipe Calderón has tried to limit the price to \$.35 per pound without much success.

Tortillas are a staple in Mexico. Tortillas are made primarily from white corn, although sometimes blue corn is used. However, both white and blue corn prices, used to make tortillas, are indexed to world corn prices, determined for all practical purposes by U.S. grain traders. As a consequence, poorer Mexicans are unable to afford tortillas and many reportedly have turned to noodles, a cheaper and less nutritious substitute.

"Free-Trade" hurt Mexico's corn farmers

A combination of a handful of international grain traders and North American Free Trade Agreement devastated Mexico's corn supply in the past decade. Mexico, which used to export corn, has become part of the extractive global market and now imports nearly one third of its corn needs. In 1993, just prior to the NAFTA agreement, the United States exported 51 metric tons of corn to Mexico. By 1995, we exported 2867 metric tons of corn in Mexico. From January through November 2006, imports of corn to Mexico increased 34% over the same period in 2005, a total of 6527 metric tons. USDA projects that Mexican corn stocks for the 2006/07 year will be 59% of the 2004/05 production year.

Loss of markets and poor prices for domestic corn have forced many rural Mexicans, particularly men, to leave their rural farming communities and come to the United States seeking work, legal or otherwise.

Corn is a rare C4 carbon fixation plant

Corn, which is really a grass, is very special. Corn is a C4, carbon fixation plant. Only about 5% of the plant biomass on the earth is C4. Plants which use the C4 metabolism include corn, sugar cane, sorghum, and switch grass. The importance of C4 to the plant is the means by which carbon dioxide is absorbed. These plants open their pores at night while most plants absorb carbon dioxide during the daylight hours. As a result, a C4 plant, like corn, can tolerate considerable heat and drought.

However, in traditional dairy areas of the U.S., where farmers may be planting their own corn to feed, heat and drought are not the usual problems. Most often, the traditional dairy areas in northern U.S. have a short growing season. Field corn has been developed specifically to solve the short season problem. **Unfortunately, for 2007, the 95-day maturity corn seed for grain production is basically sold out.** That's a major type of corn used for grain in the northern dairy states—New York, Pennsylvania, Wisconsin and Minnesota.

If 95-day seed corn can be found at some high price, then there is the problem of high fertilizer prices. According to the most recent USDA Agricultural Prices, "The January index, at 173, is up 2.4 percent from December but 8.5 percent below January a year ago. Since December, prices are higher for nitrogen fertilizers, mixed fertilizers, and potash & phosphate material." Year-to-date (January – November 2006) import prices for nitrogen fertilizers are up 4.2 per cent.

Last year, 2006, was the first year in which the U.S. imported more than 50% of the nitrogen fertilizer used. That means the U.S. is competing for fertilizer on a global basis. Fertilizer prices hit record highs in the spring of 2006, and many observers are rationally expecting much higher prices for the planting season of 2007. Logically, even with natural gas prices down, fertilizer will be in high demand and prices will skyrocket with many, more acres of corn planted.

Some have referred to recent escalation in corn prices as artificial. In fact, no one knows if what we have is a bubble or another step in the escalation of prices. Perhaps it would be helpful to put corn prices in historical perspective.

In early 2006, corn was selling for \$2.38 per bushel. In 1981, the first year of the Reagan administration, corn was selling for \$3.11 per bushel. This strange phenomenon was neither accidental, nor the

result of market forces. It was pure politics!

As many dairy farmers know, under the first Reagan farm bill, parity was eliminated as a factor in adjusting milk price supports. Grain farmers also took a hit in the 1981 farm law, which stated:

"Whenever the Secretary determines that the market price for the commodity has obtained a specific level (commonly known as the trigger price), the Secretary is authorized to increase the rate of interest on loans that have been made and design other methods to encourage the orderly marketing a week and feed grains."

Naturally, this policy had the effect of reducing the price farmers received for corn.

Data from the Bureau of Economic Analysis shows that during the Reagan years (1981-1989) after-tax corporate profits for the food industry increased 169% to \$7.3 billion. Farmers, on the other hand, lost money in five of the eight Reagan years. In the four years of the Carter administration, after-tax corporate profits for the food industry increased only 7.6% and farmers, generally, made money every year.

Continued on page 4

Global Corn Reserve Could Fall to 2.5 Days' supply, con't

Continued from page 1

Note should be taken that even though money flowed from farm organizations to the Nixon White House, the oil embargo coupled with soaring grain prices precipitated a world monetary crisis. Naturally, the greatest worldwide economic recession since the Great Depression of the 1930s began. Speculative selling of U.S. dollar forced two devaluations of the dollar in 14 months. This currency value revolution meant that the quiet deal brokered between American grain traders and Moscow was an even better deal for the Soviet Union. The devaluation of the dollar brought the cost of wheat down to \$1.48 per bushel for the Russians by the end of 1973.

The Consumer Price Index for food in 1971

was 41.3. By the election of 1980, the CPI for food had more than doubled to 91.3. If ever there was a regime of cheap food pricing carried on the backs of farmers, it was during the Reagan years. Food prices would not double again until 25 years had passed.

The Bureau of Labor Statistics compiles data known as the Producer Price Index. Each index uses the period 1982-84 as the base period, which is equal to 100. From 1981 through 2006 the PPI for corn at the farm is 99.3. The PPI for farm milk is 98.5—hardly a coincidence. American Corn Growers Association estimates that if corn prices had kept pace with inflation, corn would be selling for over six dollars a bushel. USDA lists the parity price for milk at \$35.70 per cwt. for January 2007.

Cheap corn means cheap milk. Ever cheaper corn has meant production per cow can be pushed. Perhaps the U.S. dairy industry has come to the end of the cheap corn era.

Altogether, it looks like a fine mess we've gotten into with the enthusiasm for ethanol. If you can set aside for the moment the concept of ethanol, what has really changed with corn pricing is the addition of competition into the pricing picture. Now, if dairy farmers could find a way of injecting competition into milk pricing, everything might be okay.