

Two decades of overestimating future corn exports to China

During the Great Leap Forward and the subsequent Cultural Revolution, Chinese agriculture was thrown into chaos as peasant farmers were moved into industrial production and intellectuals were shifted into agricultural production as a part of the re-education campaign.

With the death of Mao in 1976 and the eventual elevation of Deng Xiaoping in 1978, the famine and deaths due to the lack of food during the Great Leap Forward and Cultural Revolution had a great impact on subsequent agricultural policy. Emphasis was put on providing a stable economic base for farmers, increasing the production of staples, food self-sufficiency, and the development of reserves as a means both of protecting farmer income and providing a supply of staples in the case of a production shortfall. Hunger was not an option.

As a result, China's stocks of grains, particularly corn, wheat, and rice, began to increase to the point that the year-to-year carryover was equal to 50 to 80 percent of annual domestic demand. During this period China began to engage in trade with the rest of the world as a part of their industrial development policy and eventually sought membership in the World Trade Organization (WTO). In preparation for WTO accession, China began to reduce its grain stocks.

The US had great hopes that the opening of China would result in greater sales of grains and oilseeds to China. At the time that the 1996 Farm Bill was passed most analysts projected that with a growing middle class and a change in diet from one based on grains to one that included more meat, China would become a reliable importer of US corn to the point that the projections indicated that by 2002, China would be importing 500 million bushels of grain. But analysts did not have a good handle on the size of China's grain stocks and so in 2002 China was able to export 500 million bushels of corn. The expected US exports did not materialize though the level China's grain stocks had shrunk.

During that period China did begin to import soybeans, providing a bright spot in an otherwise bleak picture for US farmers.

After China gained accession to WTO and exports of manufactured products began to increase, Chinese agricultural policy began to focus once again on food self-sufficiency, meaning that they wanted to keep imports of grains to less than 5 percent, while allowing for the rapid increase in the import of soybeans that were then processed into soybean oil and soybean meal for domestic use.

These renewed food self-sufficiency policies had their desired impact as the production of grains increased along with an increase in stock holding by the government. This was achieved through price policies that were generally above world levels. As a result, China's grain stocks began to approach their pre-WTO-accession levels.

An April 2016 Rabobank report, "Cutting China's Massive Corn Inventory," (<http://tinyurl.com/mcqae47>) said that on March 28, 2017, "effective as of the 2016/17 new crop, the Chinese government officially announced the end of its nine-year-old state corn procurement program." Rabobank further reported, "The reformed policy entails market-oriented pricing without governmental intervention, as well as producer subsidies to supplement some of the losses incurred by farmers."

The key question is, "What can farmers in the US and other exporting nations expect from this policy change in China?" To answer that question, let's look at the numbers.

Using data from USDA Production, Supply, and Distribution (PS&D), we get numbers that are roughly half those in the Rabobank article, but to make comparisons with the US, we will use PS&D numbers for both.

For the 2016 crop year, the US year-ending corn stocks are projected to be 2.3 billion bushels or 15.9 percent of expected utilization. For China, PS&D projects 2016 year-ending stocks at 4.0 billion bushels or 44.2 percent of utilization. Those numbers are not fully comparable because there are serious questions about how much of China's corn stocks have gone out of condition and may not be usable.

By way of comparison, for the 2000 crop year, PS&D pegs China's stocks-to-use ratio at 80.3 percent. That number dropped to the 25 percent range in the 2004-2007 period to slowly creep back up to 51 percent last year. Over the last six years, China's corn production has exceeded utilization by 350 million bushels a year out of a total utilization of 9.1 billion bushels or 3.8 percent. Over that same period, US corn production exceeded utilization by 200 million bushels a year out of a total utilization of 14.6 billion bushels or 1.4 percent.

Given China's history of concern for food security and food self-sufficiency, it seems to us that it would be unreasonable to expect China to reduce its year-ending stock levels of corn below 25 percent. That would mean that over the next couple of years China would have to reduce its stocks by 1.8 billion bushels, some of which will undoubtedly be covered by subtracting corn stocks that have gone out of condition. In addition, some of it could be exported to neighboring corn-using neighbors, crimping the market for US corn.

While Rabobank talks of the need to reduce China's corn acreage by 9 percent, 2 or 3 percent may be more realistic. So, what will China do with that acreage? A reasonable guess is that they would use that area for soybean production. That probably would not eliminate an increase in soybean imports by China, but it might slow the rate of increase below what we have seen in recent years.

Whether one believes the numbers put forth by Rabobank or those reported by PS&D, the news is bearish for farmers in the US and other corn and soybean exporting countries.

Policy Pennings Column 873

Originally published in MidAmerica Farmer Grower, Vol. 37, No. 119, April 28, 2017

Dr. Harwood D. Schaffer: Adjunct Research Assistant Professor, Sociology Department, University of Tennessee and Director, Agricultural Policy Analysis Center. Dr. Daryll E. Ray: Emeritus Professor, Institute of Agriculture, University of Tennessee and Retired Director, Agricultural Policy Analysis Center.

Email: hdschaffer@utk.edu and dray@utk.edu; <http://www.agpolicy.org>.

Reproduction Permission Granted with:

- 1) Full attribution to Harwood D. Schaffer and Daryll E. Ray, Agricultural Policy Analysis Center, Knoxville, TN;
- 2) An email sent to hdschaffer@utk.edu indicating how often you intend on running the column and your total circulation. Also, please send one copy of the first issue with the column in it to Harwood Schaffer, Agricultural Policy Analysis Center, 1708 Capistrano Dr. Knoxville, TN 37922.