PolicyPennings by Dr. Daryll E. Ray

China takes care of China

It would not be a stretch to assert that Chinese imports have driven the recent growth in soybean production and exports by the US, Brazil, and Argentina. Between 1995 and 2009, Chinese imports of soybeans grew by 1.459 billion bushels (from 0.029 to 1.488 billion) while the rest of the nations of world increased their imports by 0.183 billion bushels (from 1.168 to 1.351 billion).

China now imports 53 percent of all raw soybeans in world trade. While Brazil and Argentina have captured the lion's share of the import growth, any change in the rate of growth in Chinese soybean imports would have serious price and production-growth consequences for the US as well as Brazil and Argentina.

When it comes to decade-long growth rates the size of those recently experienced by Chinese soybean imports, it is always dangerous to extrapolate such rates years and decades into the future. In this case, it is likely even more dangerous to make continued high-growth assumptions because, well, because it is China we are talking about.

China's imports of soybeans stand in contrast to its behavior in virtually all other major agricultural commodity markets. In the case of grains, China exports more than it imports, shipping between 1 and 2 percent of its major-grain crops out of port in 2009.

While not trying to suggest that we understand the spectrum of considerations that influence the behavior of the Chinese in agricultural markets, we do think it is important to understand the use of grains and soybeans in China.

Rice is one of the traditional mainstays of the Chinese diet and virtually all of the 136 million tonnes of production (2009) is used either for food, seed, or additions to carryover stocks. Less than 5 percent of China's 115 million tonnes of wheat production is used for animal feed, with the rest used for food, seed, and changes in carryover stocks.

Unlike rice and wheat, which are primarily grown for food, 75 percent of China's 2009 corn production is projected to be used for feed with the rest divided up among food, seed, industrial, and changes in carryover stocks.

In addition to the high use of corn for animal feed another difference between it and rice and wheat is the increase in production that has taken place since 1995.

In 1995, more rice was produced than either wheat or corn. In the years since then rice production has

increased by 6 million tonnes to 136 million tonnes. During that same period wheat production increased from 102 million tonnes to 115 million tonnes in 2009.

Corn on the other hand has increased over that period by 43 million tonnes to 155 million tonnes in 2009 with the proportion of corn production used for animal feed increasing over time. Corn production now exceeds that of rice by 19 million tonnes.

Soybean production is significantly smaller than the three major grains coming in at 14.5 million tonnes just 1 million tonnes more than was produced in 1995. Over that period the use of soybeans for human food has increased 5.6 million tonnes to 8.8 million tonnes.

The use of soybeans for crush has increased from 7.5 million tonnes in 1995 to 44.1 million tonnes in 2009, an increase of 488 percent. Most of the meal that resulted from the crush was used for animal feed with the oil being used for human consumption, according to U.S. Department of Agriculture statistics.

The increase in the use of corn and soybean meal for animal feed has supported a 38 percent and 68 percent increase in the production of pork and broilers respectively over the 1995-2009 period.

Looking over the last 15 years, the data suggest that the Chinese have focused on self-sufficiency in rice, wheat, and corn production to the exclusion of soybeans. In addition, the data show that the Chinese have used increases in corn production and soybean imports to increase their production of pork and poultry, maintaining a near self-sufficiency in the production of those meats.

The future of soybean imports by China depends upon the willingness of its leaders to continue that pattern. Another key issue is whether or not the increase in Chinese imports will keep pace with net production increases-production in excess of domestic demand-in the US, Brazil, and Argentina. Just as soybean producers have benefitted from increasing Chinese soybean imports over the last 15 years, they could face price pressures if future increases do not keep up with the growth in supply. A movement on the part of the Chinese to focus on increasing domestic soybean production could be problematic for the three major soybean exporters.

The data also suggest that a significant increase in the level of imports of pork and poultry would require a change in current public policy. US pork and poultry producers hope changes in Chinese trade poli-

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cies will result in larger markets for them. In the longterm, if large quantities of US pork and poultry are imported by China, it most likely will be because China believes it is in China's long-run best interest to do so. Otherwise, not.

To us, the evidence is strong that-above all else-China takes care of China. Daryll E. Ray holds the Blasingame Chair of Excellence in Agricultural Policy, Institute of Agriculture, University of Tennessee, and is the Director of UT's Agricultural Policy Analysis Center (APAC). (865) 974-7407; Fax: (865) 974-7298; dray@utk.edu; http://www.agpolicy.org. Daryll Ray's column is written with the research and assistance of Harwood D. Schaffer, Research Associate with APAC.