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## PolicyPennings by Daryll E. Ray & Harwood D. Schaffer Soybeans: US export trend is up, share of world exports is down

In contrast to corn where US exports have generally been flat since hitting a peak between 1979 and 1981 (<a href="http://agpolicy.org/weekcol/684.html">http://agpolicy.org/weekcol/684.html</a>), US soybean exports have generally trended upward over time.

The US exported 5.8 MMT (million metric tons) of soybeans in 1964, passed the 10 MMT threshold in 1969, the 20 MMT threshold in 1978 falling below that level in 7 of the next 27 years before passing the 30 MMT level in 2006 and the 40 MMT level three years later in 2009. With a drought reduced crop, 2012 US soybean exports were 35.8 MMT.

But that is not the complete export story. For one thing, soybean meal and soybean oil should be considered as well as soybeans. Together the three make up the soybean complex. Secondly, while the US has experienced dramatic increases in soybean and soybean complex exports over the last five decades, equally dramatic is the persistent decline in US's share of those exports.

In 2012 soybean meal and soybean oil exports added 10.9 MMT to US soybean exports for a total soybean complex export level of 46.7 MMT. In 1964, soybean meal and soybean oil comprised 29.8 percent of US soybean complex exports while in 2012 these further processed products made up 23.3 percent.

In 1964, US soybean complex exports accounted for 81.1 percent of world soybean complex exports. By 2012, the US share of world soybean complex exports had fallen to 27.5 percent. That difference has been largely taken up by Argentina and Brazil.

Brazil exported 1.8 percent of world soybean complex exports in 1964, growing to 32.2 percent in 2012 (54.9 MMT). Of the 2012 soybean complex exported by Brazil, soybean meal accounted for 23.7 percent. Before 1995 when China began its rapid increase in soybean imports, that percentage was 68.7 percent as Brazil began competing with the US to capture a portion of the Chinese unprocessed soybean market. Currently soybean oil accounts for 2.5 percent of Brazil's soybean complex exports. In 2012, 73.8 percent of Brazil's soybean complex exports was unprocessed soybeans.

Argentina did not begin to export any of the products in soybean complex until 1972 when it began to export soybean meal and soybean oil. From a miniscule 0.2 percent in 1972 world soybean complex exports, Argentina's share has grown to 24.1 percent in 2012 (40.9 MMT). Over the whole period, Argentina has concentrated on exporting the crush products of

soybean meal (67.4 percent of its soybean complex exports in 2012) and soybean oil (11.0 percent), capturing the added value of the crush. In 2012, Argentina accounted for 45.5 percent of world soybean meal exports, with Brazil coming in at 21.5 percent and the US in third position at 16.3 percent. All other exporters divvied up the remaining 17.0 percent,

World exports of soybean complex in 1964 accounted for 34.7 percent of world soybean production while in 2012 that percentage had nearly doubled to 63.4 (169.7 MMT). Exports are far more important to soybean producers than they are to corn farmers, with corn exports accounting for 10.7 percent or world corn production in 2012.

Much of the recent soybean export boom has been driven by China which, as we noted earlier, ramped up its unprocessed soybean imports in 1995. In the 1998-2001 period, it was China's imports of soybeans that provided a bright spot on an otherwise dismal agricultural commodity price picture. And, as corn ethanol production roared to the fore in recent years, the competition between corn and soybeans for planted acres has lifted the price of all storable agricultural commodities.

China moved into the soybean complex import market in 1994 when it increased its imports of soybean oil by 1.1 MMT to 1.7 MMT. The following year China not only began to increase its soybean imports (0.8 MMT), it also boosted its soybean meal imports to 1.2 MMT, up from 50 thousand metric tons a year earlier. In 2012, China's imports of soybean meal fell to 20 thousand metric tons while soybean oil imports were 1.6 MMT.

China's imports of the soybean complex accounted for 5.3 percent (3.5 MMT) of world soybean complex exports in 1996. By 2012, China's share of world soybean complex trade had increased to 35.7 percent (60.6 MMT). In absolute terms China's soybean complex imports increased by 57.1 MMT (54.6 percent of world soybean complex trade). Without China's 57.1 MMT increase in soybean complex imports over the 1995-2012 period, the pressure on suppliers like Argentina, Brazil and the US would have been much lower, as the result of diminished competition for acres between corn and soybeans over that period. As a result farmers would have seen lower prices for their soybeans and corn. China's soybean complex imports were clearly responsible for the prosperity soybean farmers have enjoyed over the last

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two decades.

The USDA estimates that in 2011 China held 15.9 MMT of unprocessed soybeans as ending stocks, 114.2 percent of its domestic consumption. With tight world soybean supplies and reduced production in 2012, China used 4.3 MMT of its stocks to meet increased domestic consumption, reducing the ending stock percentage to 98.7.

In less than two decades, China has gone from meeting virtually all of its domestic soybean complex needs with domestic production to the point where domestic production equals just 16.9 percent of domestic consumption. While China seeks to maintain self-sufficiency in grains, it clearly has made an exception to its self-sufficiency policy for soybeans.

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). Harwood D. Schaffer is a Research Assistant Professor at APAC. (865) 974-7407; Fax: (865) 974-7298; <a href="mailto:drawgoutk.edu">drawgoutk.edu</a> and <a href="mailto:hdschaffer@utk.edu">hdschaffer@utk.edu</a>; <a href="http://www.agpolicy.org">http://www.agpolicy.org</a>.