

During the last forty years the US share of soybean complex exports has fallen by nearly one-half, mostly due to increased availability of technology and expansion of cropland in Brazil and Argentina

In the third of a series of columns looking at agricultural commodity exports, we turn our attention to soybeans; corn and wheat were the focus of the earlier columns (<http://www.agpolicy.org/articles22.htm>).

Thinking about soybeans triggers some reflection on the change in the role of soybeans over our lifetime. In 1955, when we were a couple of preteen kids, soybeans were something of a novelty with 18.6 million harvested acres (MHA) compared to 39.0 MHA for oats, 47.3 MHA for wheat and 68.5 MHA for corn. Soybean exports were a mere 1.9 million tonnes (MT), a far cry from the 56.9 MT shipped out in the 2021 crop marketing year.

As we did in the two earlier columns on corn and wheat, today we want to examine the changes in production and exports of soybeans and soybean products during the 1980-2021 period.

The US was the largest soybean producer in 1980, growing 48.9 MT and accounting for 60.5% of the world soybean crop. Brazil was in second place, producing 15.2 MT (18.8%) and China came in third at 7.9 MT (9.8%). Together these 3 countries accounted for 89.0% of world soybean production.

In 2021, Brazil was the world's largest producer of soybeans (127.0 MT, 35.9%) with the US a close second at 120.7 MT, 34.1%. Brazil's soybean production has exceeded that of the US in 4 of the last 5 years. Argentina was a distant third with 43.5 MT. These 3 countries accounted for 82.3% of world soybean production.

Turning to soybean exports, in 1980 the US dominated soybean exports (19.7 MT) with a market share of 77.8%. Argentina was in second place (2.7 MT, 10.7%) closely followed by Brazil (1.8 MT, 7.1%). Together these three accounted for 95.5% of world soybean exports.

By 2021, the story was quite different. Brazil exported 85.5 MT of soybeans, 53.9% of world soybean exports. The US followed with 56.9 MT of soybean exports (39.5%) with no other exporter close to these two. Together, Brazil and the US supplied 89.8% of world soybean exports.

If soybeans were like corn and wheat, that would be the end of the story. But, to get a full picture of soybean exports we need to move beyond the raw product to include soybean meal and soybean oil. We will look at them separately and then look at soybean complex (the sum of the three).

Argentina led the world in the export of soybean meal, shipping out 28.0 MT in the 2021 crop year. Brazil was second with soybean meal exports of 16.5 MT. The US rounded out the top 3 with soybean meal exports of 13.1 MT.

Four decades earlier in 1980, Brazil was in first place with exports of 7.7 MT of soybean meal followed by the US (6.2 MT). Argentina was a distant third with 0.4 MT of meal exports.

While the 2021 export market for soybean oil is 1/5 the size of the soybean meal market, it is nonetheless significant. Once again, Argentina led the market with exports of 5.9 MT followed by Brazil at 1.7 MT with the US a distant third (0.7 MT).

In 1981, Brazil was the leader in soybean oil exports (1.2 MT) followed by the US (0.7 MT) with Argentina a distant third (0.1 MT). Argentina began increasing its export of soybean oil the next year, plateauing just under the 6.0 MT mark in 2006.

Looking at soybean complex exports paints a different picture from what one sees looking just at beans alone.

In 2021, Brazil led the market for soybean complex exports, accounting for 103.7 MT in exports, 43.4% of the 238.8 MT market. The US was next with 70.7 MT (29.6%). Argentina took third (36.7 MT, 15.3%).

In 1980, the US dominated the market for soybean complex exports with a market share of 56%. By 2021, its market share had slid to 29.6%.

From our perspective two factors have led to the decline in the US share of world soybean complex exports. By the 1980s, if not before, the US land base for economically sustainable crop production was relatively fixed while Argentina and especially Brazil were just beginning the kind of expansion of cropland that the US saw until the late 1890s.

The second factor is one that we have discussed in earlier articles, the agricultural technology that US farmers used to great advantage became available to farmers (especially commercial farmers) around the world.

Neither trade negotiations nor shifts in US agricultural policy can materially affect either of these factors.

The factor on the horizon that could make things more difficult for farmers around the world is climate change.

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