

In 1980 three-fourths of world corn exports were from the US; by 2021 the US share had dropped to less than one-third

In last week's column we discussed the impact that the Russian invasion of Ukraine could have on US agriculture and crop prices worldwide. That led our wandering minds to think more generally about the state of agricultural trade in 2021 compared to 1980, a time when optimism was in the air when it came to the idea that increasing crop exports would lead to a new Golden Age of Agriculture and crop subsidy programs would be a thing of the past.

As a result of this export optimism, US agricultural policy for the next several decades was focused on implementing programs that would make US crops more price-competitive in world markets.

A prime example of this was the 1996 Farm Bill that eliminated stock holding programs and price floors on the premise that these programs were reducing the competitiveness of US crops in world agricultural commodity markets. The argument made by the proponents of this legislation was that by setting a price floor on crops, the US was ceding export markets to other nations. The expectation was that with no price floor farmers in other nations would reduce their production, allowing the US to increase its crop exports thus improving prices.

We could never understand the logic of that argument, but let's take a look at what happened in world crop export markets in the 1980-2021 period.

This week we will start with corn. In subsequent weeks we will make our way through the other major US crops.

For our analysis we pulled production, export, and import data from the USDA Production, Supply and Distribution online data extraction tool ([link](#)). We then looked at national data in each of these 3 categories, ranking countries using the 2021 data.

In 1980, farmers around the world produced 408 million tonnes (metric tons) of corn. By 2021, the production of corn had increased to 1.2 billion tonnes.

The US was the world's largest corn producer in 1980 at 168.6 million tonnes, 41.3% of the corn grown in the world. By 2021 US production had increased to 383.9 million tonnes, but its share of world production had slid to 31.9%.

China was in 2nd place, producing 272.6 million tonnes of corn, compared to 62.2 million tonnes in 1980, more than 4 times its earlier production. Holding 3rd place was Brazil at 114.0 million tonnes well above its 1980 production of 22.6 million tonnes for an increase of 405%.

These 3 were joined with increases in the following countries: the European Union (15 member nations in 1980 increasing to 27 by 2021), 223%; Argentina, 319%; Ukraine, 406% between 1987 and 2021; India, 331%; Mexico, 165%; South Africa, 14%; Russia, 290% between 1987 and 2021; and Canada, 143%.

In 1980, the US exported 60.7 million tonnes of corn. In the intervening years US corn exports did not reach that level again until 2007. The high for the period was 69.9 million tonnes in 2020 with a low of 18.5 million tonnes in 2012 due to a drought across the US corn belt.

The US accounted for 75.6% of world corn exports in 1980, falling to 30.2% in 2021. The highest export share was 83.6% with a 19.4% in 2012.

Brazil ranked second in world corn exports in 2021 at 21.1%, compared to 0% in 1980. Argentina followed with a world corn export share of 19.1% compared to 11.3 in 1980. Ukraine accounted for 16.4% of 2021 world corn exports compared to 2.5 percent in 1987.

The top 4 corn exporters accounted for 87.0% of world corn exports in 2021.

Looking at 2021 world corn imports, China came in first at 13.8%, followed by Mexico (9.2%), Japan (8.3%), the European Union (8.0%), South Korea (6.2%), and Egypt (5.5%). The top 6 importers accounted for 51.0% of 2021 world corn imports.

As we look over the last 42 years, we see a landscape littered with unrealistic/unfulfilled expectations in the ability of exports to sustain a profitable landscape for US corn producers. In 1980, US corn producers had a technological advantage over farmers in most other countries, but since then the technological advances have spread worldwide.

Given the continuing war in Ukraine, it seems likely that US corn exports will increase in the short-term. But as we write the 2023 Farm Bill, we should not mistake a short-term bump in corn prices for a long-term shift in the dynamics of world corn exports.

This reminds us of the old proverb, “Fool me once, shame on you; fool me twice, shame on me.”

Policy Pennings Column 1117

Originally published in MidAmerica Farmer Grower, Vol. 37, No. 363, March 11, 2022

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.