
Balancing the US Agricultural Trade Deficit with Higher-Value Food Crops

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American diets have long lacked healthy quantities of produce, legumes, and whole grains recommended by nutritionists and federal dietary guidelines. In the most recent estimations, consumption of these key categories of healthy foods falls short by 50-70%, meaning **federal dietary guidelines recommend Americans consume 2-3x more fruits, vegetables, legumes, and whole grains than they do**¹. Yet rather than shifting American agricultural production to increase the domestic supply of these key foods in recent years, **fewer and fewer acres of American farmland are growing these crops**.

Further, despite having nearly a billion acres of farmland and a population of only 330 million, **the US is increasingly dependent on imports for its supplies of these key foods, driving an agricultural trade deficit**^{2,3,4}.

How have these key performance metrics of our food system changed under the most recent \$428B⁵ 2018 Farm Bill?

How many acres of American food crops have been replaced by imports?

And what would it take to balance the US agricultural trade deficit by increasing the production of higher-value food crops?

We looked at trends in acreage, production, trade, producer price index (PPI), and consumer price index (CPI) over the period of the most recent Farm Bill to explore.

Limited Food Crop Production and Acreage Declined Further

Most American farmland acreage is dedicated to animal feed and fuel production. Over the last 5 years, American consumption of chicken and exports of pork continued to climb, increasing demand for soy, a key feed crop for pork and poultry. Soybean acreage and production, a crop that already covered nearly half of cropland acres in many Corn Belt states, expanded further, particularly in those states where it already dominated, with an average of ~886,000 additional acres of soybeans harvested each year from 2018 through 2022².

¹ Lin, Biing-Hwan, Joanne Guthrie, and Travis Smith. March 2023. Dietary Quality by Food Source and Demographics in the United States, 1977–2018. EIB-249, U.S. Department of Agriculture, Economic Research Service.

² (dataset) USDA National Agricultural Statistics Service (2023). NASS - Quick Stats. USDA National Agricultural Statistics Service. <https://data.nal.usda.gov/dataset/nass-quick-stats>. Accessed 2023-06-09.

³ (dataset) USDA Economic Research Service (2023). Data by Commodity – Imports and Exports – Vegetables and Pulses. <https://www.ers.usda.gov/data-products/vegetables-and-pulses-data/trade-and-prices-by-category/>

⁴ (dataset) USDA Economic Research Service (2023). Data by Commodity – Imports and Exports – Fruit and Tree Nuts. <https://www.ers.usda.gov/data-products/fruit-and-tree-nuts-data/data-by-category/>

⁵ USDA Economic Research Service Agricultural Policy Team (2023). Farm Bill Spending.

<https://www.ers.usda.gov/topics/farm-economy/farm-commodity-policy/farm-bill-spending/#:~:text=The%20Agriculture%20Improvement%20Act%20of.%20year%20period%202019%E2%80%9323>

Among crops grown in the US and primarily used directly for human food, wheat has the largest footprint. Yet, despite strong demand and prices, harvested wheat acreage fell on average by ~851,000 acres per year between 2018 and 2022². Though wheat is broadly cultivated across the US, reductions were concentrated in the West, the Plains and western Corn Belt states where drought and/or shifts to soy reduced wheat cultivation and production.

Like wheat, harvested acreage and domestic production of other key food crops including rice, vegetables, and melons also dropped, in some cases precipitously, between 2018 and 2022. Harvested vegetable acreage fell about 20%. However, unlike wheat, the collective footprint of all other major harvested food crops was quite limited in 2018 and became even smaller by 2022, with just ~10M acres harvested across rice, peanuts, pulses, vegetables, melons, fruit, and nuts².

Trade Imbalance Worsens for Higher Value Food Crops

Exports fell and imports rose for vegetables, fruits, melons, and key food grains. Across produce items, the US was or became a net importer of all 5 of the top vegetables by 2021. For melons, 14% growth in cantaloupe imports brought the US' melon trade deficit to more than \$60M in 2021. Similarly, though the US remains a net exporter of wheat and rice, exports fell and imports rose, worsening the trade balance for those key food grains. For rice, imports increased ~8% per year and exports fell ~5% per year. For wheat, the USDA expects exports to hit a 51-year low for the 2022-2023 marketing year⁶. Formerly the world's leading wheat exporter as recently as 2016-17, the United States' wheat production decline is attributed to both decreases in acreage and yield due to widespread drought in US production regions, as well as cheaper supplies from Russia, Canada, and Australia.⁶

<0.5% of US Farmland Could Balance Ag Trade Deficit

At 2022 prices, just 3.5-4.4 million acres of higher value fruit, vegetables, and melons would be needed to generate \$32.9B in sales, the 2022 size of the US produce trade deficit and more than the projected \$27.5B overall ag deficit projected for 2024^{7,8}. The US currently has more than 900 million acres of farmland, so this amounts to just 0.4% of US farmland. This could be accomplished by approximately doubling the amount of land currently harvested for these crops. This is still less than the amount of land historically dedicated to these crops. Over the last 20 years, and in many cases for much longer, acreage of all major food crops has been falling. Acreage of many key food crops including potatoes, sweet potatoes, sweet corn, tomatoes, apples, and oranges has fallen precipitously 20-90% from peaks in the 20th century. Likewise, wheat acreage alone has fallen from 80.6 M acres, its peak in 1981, to just 35.48M acres in 2022, the fewest since 1888 and a 45M acre decline, representing more than 10 times the number of produce acres needed to balance the trade deficit. More acres are left fallow annually than would be needed to balance the deficit – production worth more than \$30B to American communities.

⁶ Braun, Karen, January 2023. Column: USA, Former Wheat Giant, Posts a 40-Year Export Low As Demand Sags. Reuters. Available at: <https://www.reuters.com/markets/commodities/usa-former-wheat-giant-posts-40-year-export-low-demand-sags-2023-01-10/>

⁷ Data Source: U.S. Census Bureau Trade Data <https://apps.fas.usda.gov/qats>

⁸ Outlook for U.S. Agricultural Trade: August 2023, AES-125, August 31, 2023, USDA, Economic Research Service and USDA, Foreign Agricultural Service <https://www.ers.usda.gov/webdocs/outlooks/107311/aes-125.pdf?v=7586.1>