



Feeding the World?

Twelve Years Later, U.S. Grain Exports Are Up, So Too Is Hunger

SUMMARY

In the 12 years since an IATP report debunked the industry claim that corn and soybean exports help reduce global hunger, both exports and hunger are still on the rise. What has changed in that time, and what hasn't?

In 1999, the Institute for Agriculture and Trade Policy (IATP) published a groundbreaking report by Mark Muller and Richard Levins entitled *Feeding the World? The Upper Mississippi River Navigation Project* that examined agribusiness' and the Mississippi River navigation industry's claim that U.S. grain exports "feed the world."¹ At the time of the report's publication, several multi-billion dollar proposals were in play to expand and upgrade the lock and dam system on the Mississippi River, proposals that would have worsened the river's already fragile ecology, provided little benefit to Midwest farmers and rural communities, and resulted in millions of lost taxpayer dollars. The river navigation industry, led by the U.S. Army Corps of Engineers (USACE) and the agribusiness interests that backed them, argued that expanding the export capacity of the Upper Mississippi River (UMR) was crucial to help Midwest grain farmers better "feed the world." The data compiled by Muller and Levins, however, demonstrated that the overwhelming majority of U.S. grain exports

were going to wealthy countries, not countries with the world's most serious malnutrition problems. The paper demonstrated that the quasi-humanitarian "feed the world" argument was in fact only a ruse to encourage increased funding for unnecessary, wasteful UMR navigation projects.

Fast-forward to the present. The navigation industry is still pushing to expand the UMR's navigation system (though they have failed in the last 12 years to get the necessary funding for new lock and dam construction). The assertion that U.S. agriculture serves to "feed the world" persists and is used to not only promote transportation systems, but to justify genetically modified crops, free trade agreements, environmental deregulations and a number of other agribusiness priorities [for an example, see "Feeding the World" box]. Food production globally is at an all-time high, but so too is the number of hungry people around the world.² Since 1999, the world's population has increased by a billion people

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and although grain yields and production are up in many places, those people living in the countries most affected by malnutrition are still not able to access the food they need. It's very clear that a focus only on production, without

consideration of poverty and food access impediments, will do little to nothing to alleviate hunger.

Let's take a look at where things stand compared to 12 years ago.

1) Corn and soybean production is up

In the 12 years since *Feeding the World* was published, U.S. corn production has expanded dramatically, driven in large part by increased ethanol production. Between 2000 and 2009, corn acreage increased by about 10 percent (7.2 million acres) and production increased a whopping 28 percent.^{3,4} The mechanisms for this expansion depended on the region in which they occurred (fig. 1). Throughout much of the Corn Belt, the increase in corn acreage came at the expense of soybean acreage. Nationwide, however, soybean production did not decrease. In other regions, particularly the Northern and Southern plains and

Given that context, does the premise Muller and Levins debunked in their report twelve years ago—that increasing the export capacity of the Mississippi River will have a positive effect on global food security—have more merit today than it did back then?

In a word, no. U.S. grain exports—including those that move down the Mississippi River—are up, but food security globally is in a state of crisis. Unfortunately we have made very little progress addressing the most important factor in improving global food security: providing opportunities for the world's poor to generate an income that is adequate for feeding a family.

FEEDING THE WORLD

U.S. Soybean Farmers Feeding the World

Soybean Checkoff Helps U.S. Soybean Farmers Feed a Growing Global Population

ST. LOUIS (December 17, 2009) – As the holiday season comes upon us, we are reminded of those less fortunate than ourselves. According to the Food and Agriculture Organization of the United Nations, more than 1 billion people go hungry every day, and with the United Nations (U.N.) predicting the population to top 9 billion by 2050 this number will surely increase. The U.N. also claims the growing global population means that agricultural production may need to increase by 70 percent using the same amount of land and water.

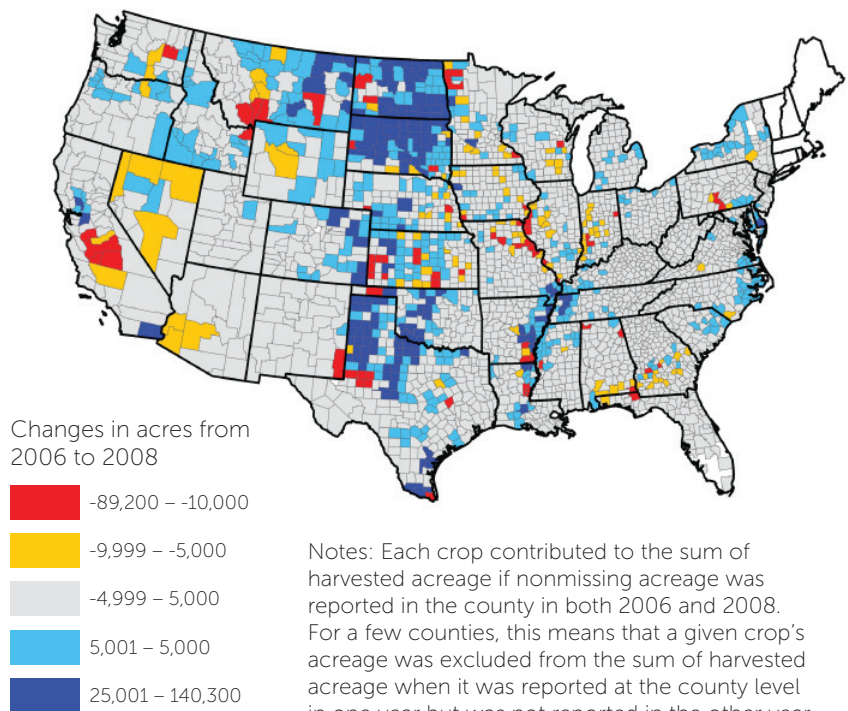
The United Soybean Board (USB) and soybean checkoff provides U.S. soybean farmers with tools and support to help them in their desire to help feed this growing population. An impressive 82 percent of U.S. soybean farmers polled in a recent soybean checkoff-funded survey said they felt a responsibility to feed the global population.

"It's encouraging, but not surprising, to see the number of U.S. soybean farmers who know it is part of their mission to feed the world," says Chuck Myers, a soybean farmer from Lyons, Neb., and past USB chairman. "The soybean checkoff will do its part to provide tools to help U.S. soybean farmers with this.

From the United Soybean Board website: <http://www.unitedsoybean.org/media-center/releases/u-s-soybean-farmers-feeding-the-world/>

Figure 1.

County-level changes in harvested acres of corn for grain, soybeans, wheat, sorghum, cotton, barley and alfalfa, 2006–2008



Source: Steve Wallander, Roger Claassen, and Cynthia Nickerson. "The Ethanol Decade: An Expansion of U.S. Corn Production, 2000-09," U.S. Department of Agriculture, Economic Research Service, August 2011, <http://www.ers.usda.gov/Publications/EIB79/EIB79.pdf> (accessed October 17, 2011).

the lower Mississippi River Valley, farmers expanded both corn and soybean acreage through reduced acreage of other crops as well as through expansion into previously uncultivated land.⁵ From 1999 to 2009, the number of acres of wheat planted declined by 6 percent, rice by 13 percent and peanuts by a startling 27 percent.⁶ It is interesting to note that these three crops are all consumed directly by humans, in contrast to corn and soybeans, which are primarily fed to livestock.

mainly due to increased demand for corn for ethanol production (fig. 2). In 2009, 36 percent of the U.S. corn crop was used for ethanol.⁷ Soybean exports, however, have increased substantially, up 46 percent between 1999 and 2009 (fig. 3).⁸ It is important to also note the growth in dried distillers grains (DDGs) exports. DDGs are a co-product of ethanol production and can be fed to livestock as a partial substitute for other types of feed. DDGs exports increased by over 500 percent between 1999 and 2009, with Mexico, Canada, and increasingly, China, seeing most of the exports.⁹

- 2) Corn exports are steady, soybean exports are up—way up

The increase in corn production has not meant a proportional increase in corn exports. While corn production rose 28 percent from 2000–2009, exports only increased 2 percent over that same period,

- 3) The Mississippi River remains a key transportation route for corn and soybean exports

Despite claims by the USACE that the Mississippi River navigation system is in a state of deterioration and in desperate need of expansion, the system continues to process approximately 56 percent of U.S. grain exports, and corn and soybeans account for the overwhelming majority of these grains (fig. 4). The proportion of corn exports moving through the Mississippi River is up 5 percent from the data reported in 1999, from 67 percent to 72 percent in 2009 (fig. 5).¹⁰ Soybean exports through the Gulf were at 61 percent in 2009, down from the 74 percent reported in 1999 (fig. 6). A significant amount of soybean export traffic (an 18-percent increase over the last 10 years) has shifted to Pacific Northwest ports, likely

Mississippi River Grain Traffic

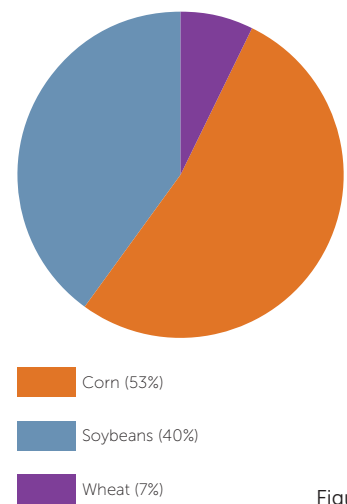


Figure 4

U.S. Corn Exports by Port Region

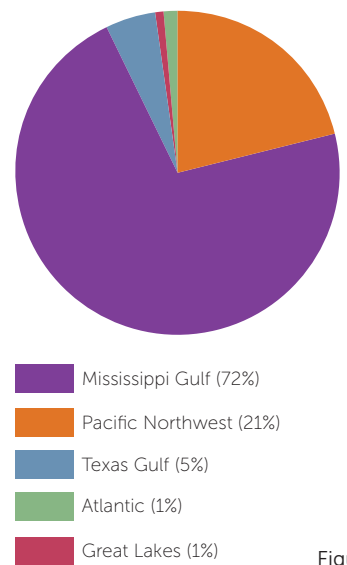


Figure 5

U.S. Soybean Exports by Port Region

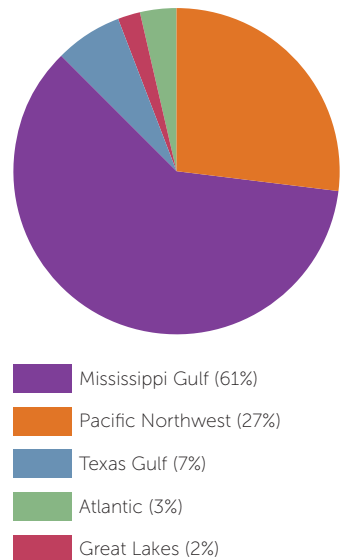


Figure 6

Figure 2
U.S. Corn Export and Production 1999–2009

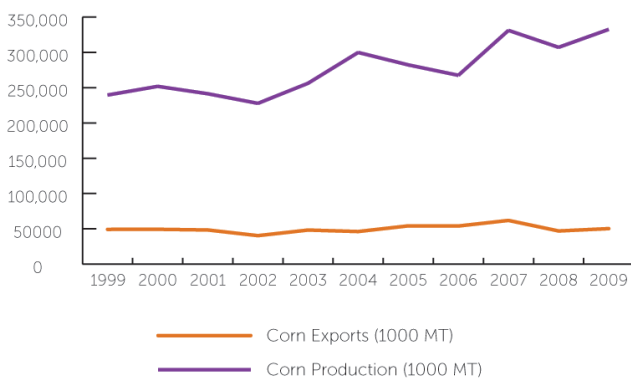


Figure 3
U.S. Soybean Meal Export and Production 1999–2009

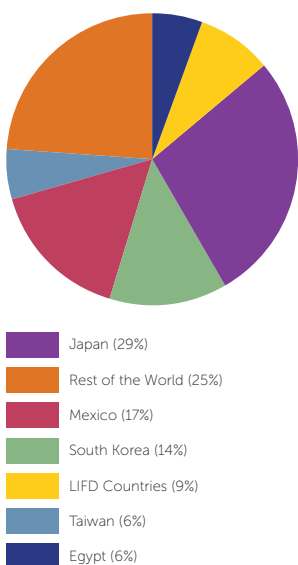


due to the substantial increase in soybean export volumes to China. Wheat continues to account for only a small amount of river traffic: just 7 percent of total river grain traffic in 2009 (although up significantly from 2 percent as reported in the 1999 paper).

4) Corn exports still go to wealthy countries

The story around corn exports remains largely unchanged from 1999: exports continue to go overwhelmingly to Organization for Economic Cooperation and Development (OECD) member nations—i.e., wealthy countries—and hardly at all to the countries most dependent on food imports to meet their food security needs. In 2009 about 72 percent of U.S. corn exports went to the top five export destinations (Japan, Mexico, South Korea, Taiwan and Egypt), while only 9 percent went to the 70 nations designated by the United Nations Food and Agriculture Organization (FAO) as Low-Income Food-Deficit countries (LIFD). (fig. 7).^{11,12,13}

U.S. Corn Exports 2009



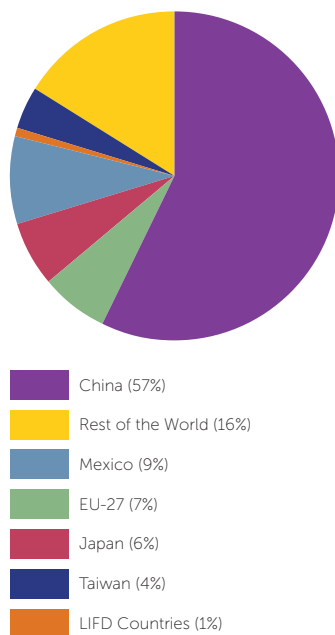
Note: Total adds up to greater than 100 percent because Egypt is represented in the LIFD total.
Source: USDA Foreign Agricultural Service.

Figure 7

5) Soybean exports go mostly to China

In 1999, soybean exports followed the same pattern as corn exports, with OECD countries being the primary importers. This has changed in the last ten years. Exports to China now dwarf all others. In 2009, more than half of U.S. soybean exports went to China.¹⁴ After China, the largest export destinations for U.S. soybeans were Mexico, Japan and the EU. LIFD countries received only about 1 percent of the total. (fig. 8).

2009 U.S. Soybean Oilseed Exports



Source: USDA Foreign Agricultural Service.

Figure 8

China, then, has been the real game-changer, and it prompts a deeper exploration of the difference between “Feeding the World” and true food security. China isn’t on the LIFD list, but neither is it an OECD member. It is, however, home to a large number of hungry people (as is OECD member country Mexico, the second largest importer of U.S. corn). According to proponents of the “Feeding the World” argument, the large quantities of soybeans and corn we export to China and Mexico are improving food security in those countries.

Unfortunately, the evidence points in the opposite direction. China’s surge in soybean imports has given rise to very large, vertically integrated pork production businesses, which have destabilized small- and mid-sized pork producers’ abilities to compete in the market.¹⁵ Small- and mid-sized soybean producers have also been forced off their land, unable to compete with lower-priced imports. China is struggling with significant food security disparities among urban and rural populations.¹⁶ Corn exports to Mexico, which surged following the 1994 North American Free Trade Agreement (NAFTA), derailed smallholder agriculture.¹⁷ It is estimated that two million farmers have lost their land since NAFTA, and according to government statistics, 25 percent of the country’s population doesn’t have access to basic foods.¹⁸ These trends have left both nations at greater risk of food insecurity and shortages, and have destroyed rural livelihoods.

Creating a food system based on cheap imported grain, as Mexico and China have done, may be advantageous for large livestock producers and processed food manufacturers, but systems such as these have time and again failed to create food security for the poorest citizens, while at the same time undermined the abilities of farmers to continue to produce for market and their families. Cheap grain imports lead to increased concentration of ownership of the means to produce food, and eliminate flexibility in the food system. When it comes to food security, from the Irish potato famine to the recent tragedy in Haiti, flexibility and diversity are absolutely crucial. An increase in extreme weather events makes it very risky to rely on a narrow number of crops and producers for the bulk of a nation’s food supply—one bad year of flooding or drought and an entire population is in big trouble. As oil and fertilizer prices rise, so too does the cost of production, so cheap imports might not be so cheap for much longer.

In 1999, as well as now, the river navigation industry has linked increased exports on the Mississippi River to decreased global hunger. That argument is as specious today as it was then, but the solution probably doesn't lie in redirecting our grain exports toward undernourished countries. Instead, aid programs, research dollars and government policies should recognize the critical role of small- and medium-scale farmers in creating true food security, both in the U.S. and abroad. The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD), a report commissioned by the United Nations and the World Bank and published in 2008 found that these kinds of agricultural systems—based on small, diversified, regionally-adapted farms—will be the key to future food security.¹⁹

The “feeding the world” argument has been used by agribusiness to justify private and public investment into everything from lock and dam expansion on the UMR, to genetically modified crops, to taking agriculture out of federal conservation programs, but if global hunger alleviation were the goal, those investments—\$1.9 billion federal dollars for lock construction alone—would be better spent helping small-scale farming flourish around the world.²⁰ There's a big role to play for U.S. farmers, too, in improving food security. Rather than spending money to try to increase grain export capacity, we should support our own farmers' transitions to more sustainable, regionally adapted farming systems that create food for more locally based markets while decreasing our reliance on petroleum-based fertilizer and chemical inputs. This would yield positive results for farmers, for the state of our own nation's food security (which is down as well: the number of food-secure households decreased more than 4 percent from 1999 to 2009), and for the river itself.^{21,22}

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