

Agricultural Exports: Opportunities for Kentucky's Farmers

U.S. agricultural exports reached an all-time record high in 1995. Exports in essentially all categories were up substantially from the previous year. The most significant growth in agricultural exports has come in high-valued agricultural products and highly processed food products. The trend toward higher-valued U.S. agricultural exports is expected to continue as trade liberalization increases throughout the world. In many regards, Kentucky is well positioned to benefit from the increased trade when it comes to raw and semi-processed agricultural products. However, if Kentucky's agricultural producers are to benefit more from the increasingly global food market, they must take better advantage of increased trade opportunities in other processed food products

By Michael Reed
University of Kentucky

Agriculture is a major enterprise not only for the United States, but also for Kentucky. Farm-level production of agricultural products may only account for 1.1 percent of Gross Domestic Product (GDP) for 1992, but if farm input suppliers, food processing companies, and other firms associated with agriculture are included, then agriculture accounts for 15.7 percent of GDP.

Agriculture involves much more than simply farm level production. It includes farm input suppliers and service providers, transportation firms, agricultural lenders, and food processors. The latter group is extremely important for the present paper because the United States is increasingly exporting food in more processed forms. The importance of these firms will only increase in the future as people from all countries become more reliant on the food marketing system to provide convenience foods.

U.S. agriculture is highly diversified, with large volumes of grain, livestock, dairy, fruits, vegetables, and other crops produced, and the United States is an exporter of most of these agricultural products. Kentucky agriculture is more concentrated in certain commodities, particularly tobacco, grains and livestock, and trends in U.S. exports reflect Kentucky exports. Tobacco is the most important crop in Kentucky, with production varying from 350 to over 500 million pounds annually. Other crop production is more stable on an acreage basis, including corn (usually encompassing about 1.2 million acres), soybeans (at about 1.2 million acres), and wheat (at about 0.4 million acres). Recent changes in farm policy, specifically the Freedom to Farm Act, may markedly change future acreage decisions for these other crops in Kentucky. Livestock enterprises in Kentucky are changing much more rapidly than the crop enterprises.

Broiler production in Kentucky has increased rapidly since 1991 (from \$24.9 million in 1991 to \$71.2 million in 1994). With the state's new chicken production and slaughter facilities, those both recently built and announced, this high rate of growth will continue in the next few years. Beef is the largest livestock industry in the state and the state's beef herd (in 1994, the herd was 2.65 million head) has been expanding since 1990. However, the pork industry has been in a clear downward trend since 1988, with only 800 thousand head in the state in 1994.

The Kentucky food processing industry is more difficult to characterize because data from the Census of Manufacturers comes out only every five years. The most recent data are for 1987, though the 1992 figures will soon be released. In 1987, Kentucky food processing was

dominated by beverage, meat, and dairy processing (value-added in these enterprises were \$714 million, \$178 million, and \$140 million, respectively). Kentucky processing of fruits, vegetables, and other food products was small relative to these other industries. Obviously, the beverage industry is dominated by distilled spirits.

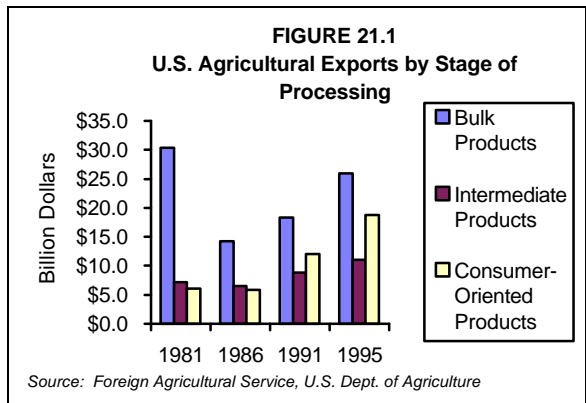
Aggregate U.S. export data must be used to investigate how Kentucky has been and will be impacted by changes in agricultural and food exports. There is no way to document actual export flows from Kentucky firms to overseas locations (especially since some products change ownership multiple times before they are ultimately exported). Nonetheless, U.S. exports of food products positively impact Kentucky producers, so understanding future U.S. export patterns for commodities produced in Kentucky will provide information on market developments for Kentucky producers too.

History of U.S. Agricultural Exports

U.S. agricultural exports set an all-time record high in 1995, totaling \$55.8 billion, an increase of \$10.1 billion above 1994 exports. Before 1994, the previous record high was in 1981, when U.S. agricultural exports totaled \$43.3 billion. Because saturated U.S. food markets are unable to absorb supply increases without significant price reductions, there is no question

that international markets are the key to any future increases in demand for U.S. agricultural output. However, this has been the case for a number of years.

During 1981, U.S. agricultural exports were dominated by bulk commodity exports—those exports whose value is less than \$400 per metric ton (such as corn, wheat, soybeans and rice). At that time, bulk agricultural products accounted for 61 percent of U.S. agricultural exports. Since 1986, there has been a clear trend away from exporting bulk products (Figure 21.1), though 1995 was an aberration where bulk commodity exports soared. As will



be discussed later, increased incomes abroad and trade liberalization have given U.S. food processors opportunities to export more consumer-oriented products.

The trends in U.S. agricultural export composition between 1990 and 1994 reflect the move toward more processed food exports (Table 21.1). U.S. exports of wheat (and its products), feed grains

	1990	1991	1992	1993	1994
Animals	\$ 413	\$ 575	\$ 486	\$ 398	\$ 468
Meat Products	\$ 2,557	\$ 2,853	\$ 3,339	\$ 3,325	\$ 3,704
Poultry Products	\$ 721	\$ 818	\$ 928	\$ 1,101	\$ 1,570
Wheat and Products	\$ 4,033	\$ 3,516	\$ 4,674	\$ 4,909	\$ 4,315
Feed Grains and Products	\$ 7,150	\$ 5,869	\$ 5,881	\$ 5,174	\$ 4,912
Fruits and Preparations	\$ 2,359	\$ 2,498	\$ 2,732	\$ 2,764	\$ 3,090
Vegetables and Preparations	\$ 2,302	\$ 2,615	\$ 2,871	\$ 3,277	\$ 3,875
Oilseeds and Preparations	\$ 5,709	\$ 6,396	\$ 7,197	\$ 7,270	\$ 7,208
Other Exports	<u>\$14,119</u>	<u>\$14,064</u>	<u>\$14,822</u>	<u>\$14,390</u>	<u>\$16,562</u>
Total Exports	\$39,363	\$39,204	\$42,930	\$42,608	\$45,704

Source: Foreign Agricultural Service, U.S. Department of Agriculture

(and their products), animals, and tobacco have either fluctuated or decreased between 1990 and 1994. There are more countries that can export such products, so U.S. exports find it dif-

difficult to compete with other export suppliers. Exports of meat, poultry, fruits (and their preparations), vegetables (and their preparations), and oilseeds have grown persistently during the period. These latter products have more added value associated with them and are generally exported in a more processed form. U.S. food processors have been able to supply these products to foreign markets at competitive prices. This move toward U.S. exports of higher-valued, more processed products will continue in the future as long as American food products can meet the competition internationally because of lower tariffs on processed foods and the move toward convenience foods in other countries.

East Asian and North American countries are the leading countries of destination for these agricultural exports (Table 21.2), not European markets. Japan dominates other countries as a destination for U.S.

exports, alone accounting for 20 percent of U.S. exports, but Canada is also important. Canadian imports of U.S. food before the Canada-U.S. Free Trade Agreement were much smaller, so trade liberalization has greatly benefited U.S. agricul-

TABLE 21.2
U.S. Agricultural Exports by Leading Destinations, 1990-1994
(in million dollars)

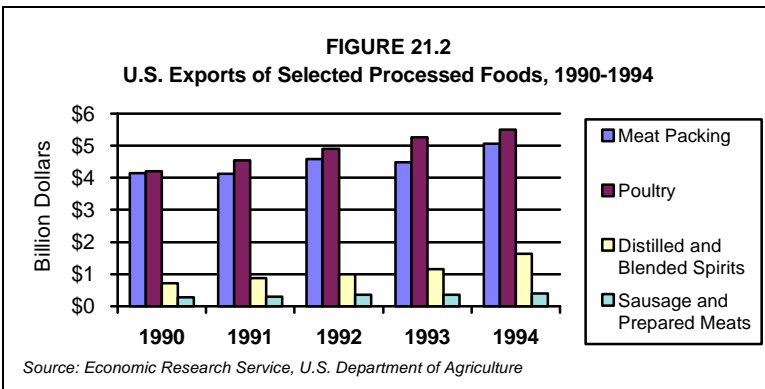
	1990	1991	1992	1993	1994
Japan	\$ 8,104	\$ 7,728	\$ 8,437	\$ 8,738	\$ 9,267
Canada	\$ 4,197	\$ 4,554	\$ 4,902	\$ 5,271	\$ 5,504
Mexico	\$ 2,553	\$ 2,998	\$ 3,791	\$ 3,603	\$ 4,513
Korea	\$ 2,644	\$ 2,104	\$ 2,222	\$ 1,932	\$ 2,329
Taiwan	\$ 1,661	\$ 1,899	\$ 1,900	\$ 2,043	\$ 2,145
Netherlands	\$ 1,581	\$ 1,698	\$ 1,853	\$ 1,702	\$ 1,708
Hong Kong	\$ 701	\$ 771	\$ 862	\$ 875	\$ 1,233
China	\$ 814	\$ 722	\$ 544	\$ 376	\$ 1,080
Germany	\$ 1,158	\$ 1,076	\$ 1,163	\$ 1,071	\$ 1,052
Former Soviet Union	\$ 2,271	\$ 2,508	\$ 2,346	\$ 1,757	\$ 1,000

Source: Foreign Agricultural Service, U.S. Department of Agriculture

tural exports. Income growth and trade liberalization in Mexico (associated with the North America Free Trade Agreement, NAFTA) will have even larger beneficial effects on U.S. agricultural exports because of agricultural production constraints in Mexico. Nonetheless, Mexico is still the third leading destination for U.S. agricultural exports.

Fortunately, many Kentucky food processing firms happen to be in sub-industries that are experiencing rapid export growth. Figure 21.2 shows U.S. exports of selected food products which are representative of Kentucky food processors. Since 1990, exports have grown by 22 percent in the meat packing industry, 128 percent in the poultry industry, and 43 percent in the distilled spirits industry. Each of these industries have increased more rapidly than the 18 percent overall increase in processed food exports. Kentucky firms are benefiting through expanded markets and higher prices for their output.

Another factor, in addition to international trade, which is becoming increasingly important in the globalization of the U.S. food processing industry is the growth in foreign direct investment. Foreign direct investment occurs when a foreign company takes an equity interest in a firm operating outside its border. For example, when a U.S. food processor owns a facility (an affiliate) in Belgium, that facility's operation could have important ramifications on U.S. food exports. In 1993, sales from foreign operations of American food firms totaled \$95.8 billion, over three times the value of American exports of processed foods.



that facility's operation could have important ramifications on U.S. food exports. In 1993, sales from foreign operations of American food firms totaled \$95.8 billion, over three times the value of American exports of processed foods.

Foreign firms also own American facilities and the value of their sales totaled \$45.8 billion in 1993—again, much more than U.S. processed food exports.

It is well known that multinational firms initially use exports as an entry strategy and if they are successful, they will often invest in processing facilities at a later date. Most of the foreign facilities owned by U.S. food firms are in Europe (accounting for 57 percent of sales in 1993) and those facilities sell most of their output in the country where their plant is located. The same is true for foreign-owned food processing firms in the United States, the vast majority of their output is sold here. Thus, foreign direct investment in food processing is an entry strategy to a market rather than a stage for exports to other countries, meaning that foreign production by U.S. food processors will hurt U.S. exports.

It is important to note that most firms which invest in overseas processing facilities are huge firms, and few Kentucky firms have processing facilities abroad. Yet, when Kentucky food processing firms decide to enter the export market, they will find themselves competing with the same firms they face here. The only difference will be that some of those competitors will have processing facilities within the country whereas the Kentucky firm may not.

Factors Driving Exports and Foreign Direct Investment (FDI)

One of the basic factors behind growth in U.S. agricultural exports is trade liberalization. Trade liberalization (reductions in tariffs, quotas, and other hindrances to trade) gives U.S. agricultural producers more access to markets and allows them to compete on an equal basis with domestic producers. Obviously, given the consistent volume of agricultural exports and recent sharp increases, U.S. agricultural producers have been successful in entering foreign markets. NAFTA and the recent GATT (General Agreement on Tariffs and Trade) agreement are important to continue expanding demand for U.S. food products overseas. Yet most of their impacts are not seen in recent trade figures. The GATT agreement was only recently signed, and the export growth to Mexico has slowed due to problems with the *peso* devaluation. However, these agreements will have important trade enhancing effects for U.S. agriculture in the future.

Despite all the trade liberalization that has taken place since the 1970s, income growth abroad is likely a more important reason for U.S. agricultural export and FDI growth. As seen in Figure 21.1, the growth in U.S. agricultural exports since 1981 has been concentrated in intermediate and processed food products—products with higher value added—rather than in bulk commodity exports. Further, the rapid growth in FDI by U.S. multinational food firms indicates that processed food markets are becoming increasingly important to U.S. food firms. Consumers throughout the world now have enough income to purchase higher valued food items. As this economic growth persists, these higher incomes will continue to play an important role in future U.S. food exports and outbound FDI.

Exchange rates have also played an important role in increasing U.S. agricultural exports since the fixed exchange rate regime was eliminated in the early 1970s. As the value of the dollar falls, U.S. agricultural exports become cheaper for foreign customers. In 1981, a \$3 bushel of corn cost Japanese importers 660 yen, whereas the same \$3 bushel of corn costs them only 360 today. The U.S. dollar has depreciated against most major currencies since 1985, providing a strong impetus for exports of price-sensitive agricultural products, such as grains and oilseeds.

What the Future Holds

The future for U.S. agricultural exports should be bright, with increases coming in most product categories. Yet there are some overriding trends that, while prominent in recent years, will become more important in the future. Most importantly, world markets for food

will likely become less sensitive to price over time, but more sensitive to product differentiation. Consumers will demand products with particular attributes that meet their consumption needs. If U.S. (and Kentucky) agricultural producers and food processors can recognize those desired characteristics and incorporate them into their outputs, they will be more successful.

Many of these product characteristics will involve scientific developments that will improve product quality—making products safer, fresher, or more visually appealing. The scientific community will need to work closely with farmers and food processors to make sure that such technology is developed and rapidly adapted into foods. This will give our producers and processors advantages in the increasingly global competition.

Another important element in future competitiveness, especially for Kentucky, is that information must flow to producers so that they can produce the desired products and deliver them to lucrative markets. This is particularly important for Kentucky because farmers and processors tend to be smaller than their competitors throughout the United States, and they do not have great access to information on international markets. Thus, these Kentucky firms will have more obstacles to overcome than many of their competitors. However, given the increasing demand for product heterogeneity throughout the world, there will be increased opportunities for exportation by these smaller, more specialized firms.

Kentucky is well poised in two industries (distilled spirits and poultry processing) internationally, but will not likely become a large exporter in other areas, such as red meat packing and dairy. There may be potential for developing other food processors, but the state's producers are unlikely to be able to compete in fruits, vegetables, and other products on a large scale. The tobacco export market has much more growth potential than the domestic market. Yet the future for tobacco exports is very much dependent on smoking and health issues in foreign countries, the magnitude of price support changes, and trade liberalization in tobacco and cigarette markets. The future for other crops is relatively bright, though it depends on future U.S. agricultural policy and the development of the world livestock industry. For instance, the Freedom to Farm Act could have major impacts on the profitability of Kentucky grain production. The world livestock industry will undoubtedly continue to expand as incomes throughout the world rise and meat consumption rises along with it. This increased demand for meat will impact the U.S. in one of two ways: through increased U.S. livestock product exports (as we have seen in recent years) or through increased U.S. grain exports to feed the larger livestock inventory outside the United States. Either scenario will be a positive development for Kentucky grain producers.

There are important trends in Kentucky agriculture that are making it more internationally competitive. An important factor behind that trend is continuing trade liberalization throughout the world that gives U.S. and Kentucky producers more ready access to global markets. The diversification of Kentucky agricultural production is also improving competitiveness, especially with respect to the poultry industry. If the state can continue to diversify into other high valued agricultural production and food processing, the state's agricultural industry will be well positioned for the decades ahead. Yet even if agricultural producers do not diversify, they will likely see strong export markets for their main crop and livestock enterprises.

