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International Trade



The 1980's have been disappointing for exporters of many raw materials, including agricultural exporters.

For the United States, the problems of sluggish agricultural trade were exacerbated by a strong dollar and high commodity support prices. In 1986, our share of the value of world agricultural trade—12 percent—reached its lowest point in nearly 30 years. It recovered slightly when U.S. farm exports rose to \$28.6 billion last year, but was still below the 19-percent share we held only a few years earlier.

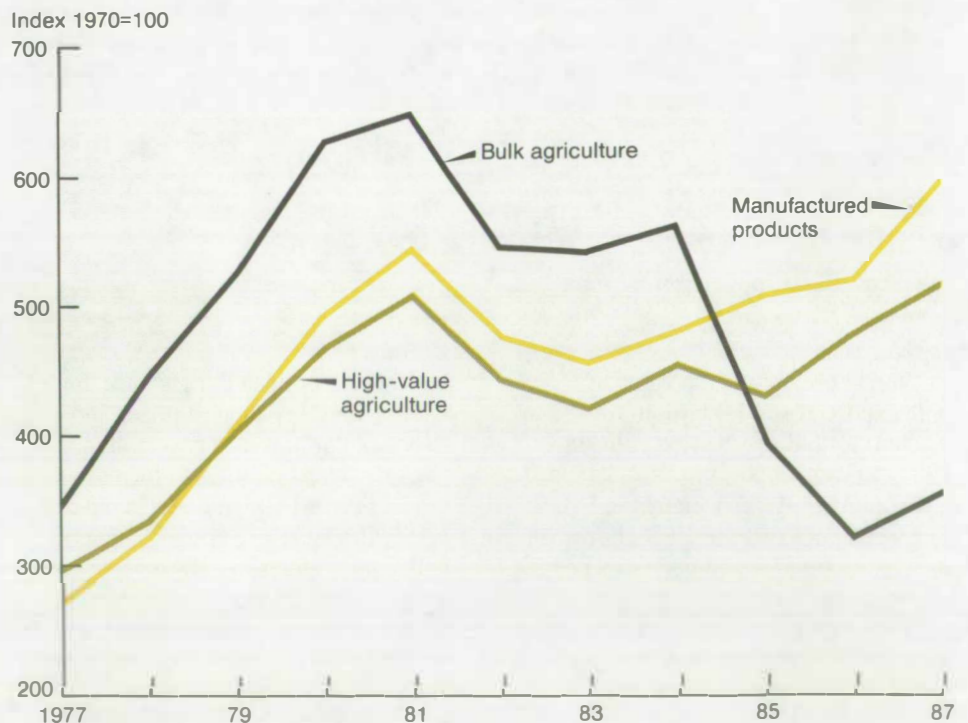
World agricultural trade also changed. The European Community (EC), Japan, and the USSR are the largest net importers of farm products. Each purchases as much as \$20 billion annually from world markets. Together they bought \$13 billion worth of agricultural goods from the United States in 1987.

However, since the 1970's, the EC has increased its agricultural production, and in 1982 began to export more grain than it imported. At the same time, Soviet grain imports—which expanded rapidly during the 1970's—dropped off. Furthermore, farm exports fell as economic policies in the industrial countries reduced the amount of credit available to developing countries.

Between 1981 and 1986, world trade in raw materials and other low-priced, bulk agricultural products fell \$22 billion or about 30 percent.

For the United States, bulk products constituted 60-75 percent of all agricultural exports during the 1980's. Bulk exports—such as grains, oilseeds, and cotton—led the U.S. export boom in the late 1970's (figure 1). They also led the decline in agricultural exports from 1981

Figure 1. U.S. Bulk Exports Saw a Sharp Drop in the Mid-1980's



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Authors Amy Allred, Catherine Greene, Shannon Hamm, Ben Huang, Gary Lucier, Stephen MacDonald, and Steve Milmo are agricultural economists with the Commodity Economics Division.

Table 1. U.S. High-Value Farm Exports Reached Record Levels in 1987

Item	U.S. Exports			
	1978	1981	1984	1987 ¹
	<i>Million dollars</i>			
High-value products	7,273	11,068	9,831	11,207
Livestock products	3,032	4,239	4,228	5,154
Beef	187	280	470	771
Poultry	216	487	282	404
Edible offals	206	311	275	348
Hides and skins	915	1,024	1,383	1,731
Horticultural products	2,042	3,631	2,849	3,445
Fresh fruit	566	855	758	938
Processed fruit, including juices	448	642	485	545
Fresh vegetables	224	354	295	269
Processed vegetables	479	1,199	707	888
Nuts	324	581	604	804
Bulk products	22,109	32,271	27,973	17,431
Grains and feeds	12,194	20,456	17,163	9,423
Wheat	4,335	7,844	6,473	3,043
Corn	5,257	7,935	6,999	3,209
Oilseeds and products	8,175	9,555	8,369	6,378
Soybeans	5,208	6,186	5,418	4,307
Cotton	1,740	2,260	2,441	1,631
Total	29,382	43,339	37,804	28,638

¹Preliminary.Source: *Foreign Agricultural Trade of the United States*, ERS, USDA, various issues.

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to 1986. Fortunately, the value of U.S. bulk exports rose \$1.3 billion in 1987 to reach \$17.4 billion, the first gain since 1984. Lower support prices and export promotion efforts, especially the Export Enhancement Program (EEP), boosted the U.S. share of world trade in wheat, coarse grains, and cotton. Poor weather and increased consumption in competing countries also added to U.S. exports. Still, our bulk product shipments remained well below the 1981 record of \$32 billion.

The agricultural policies of the United States and the EC significantly affected

bulk product trade. For instance, high U.S. commodity support prices and a strong dollar provided powerful incentives for other countries to increase their production of bulk products in the first half of the 1980's. Foreign output of bulk commodities rose 18 percent during those 5 years, even as other economic events weakened global demand. Although lower price supports and increasingly favorable exchange rates improved our competitiveness in 1986 and 1987, EC production and subsidized exports of bulk products remained high, and large foreign debts still restrained many countries' imports.

In contrast, high-value products (HVP's)—such as produce, livestock products, and processed foods—have been the most resilient agricultural exports of the 1980's. World trade in HVP's reached a record \$173 billion in 1986. U.S. shipments reached a record \$11 billion in 1987 (*table 1*). Markets for HVP's are very different from bulk markets. There is a greater variety of products, and they cannot be as easily substituted for one another. Consequently, their sales often remain stable even if their prices rise. On the other hand, there is greater similarity among bulk products, particularly among commodities used in livestock feed. For example, soybeans have been increasingly substituted for grains during the 1980's, and soybeans from Brazil have increasingly replaced soybeans from the United States.

High-value agricultural products and manufactured goods share trade and market characteristics. The low degree of substitution possible within these groups and the geographic distribution of their markets helps sustain demand and prices. For example, washing machines are poor substitutes for airplanes, just as oranges are poor substitutes for raisins.

Another similarity between HVP's and manufactured goods is that both are largely purchased by wealthier customers. World bulk product trade soared when centrally planned and developing countries increased their purchases during the 1970's, but HVP trade remained focused on industrialized markets. Nearly 70 percent of all HVP's and manufactured goods sold on world markets go to industrialized countries. Relatively strong economic growth in these countries sustained trade during the 1980's. Increasingly favorable exchange rates with the industrialized countries further helped our high-value exports after 1985.

The Fruit Trade

Fruit is shipped overseas in many forms. Fresh, dried, and canned are the predominant types, with fresh by far the most important. Although the United States is a major producer of many fruits, we export more fresh citrus—oranges, grapefruit, and lemons—than any other fruit except apples (*figure 2*).

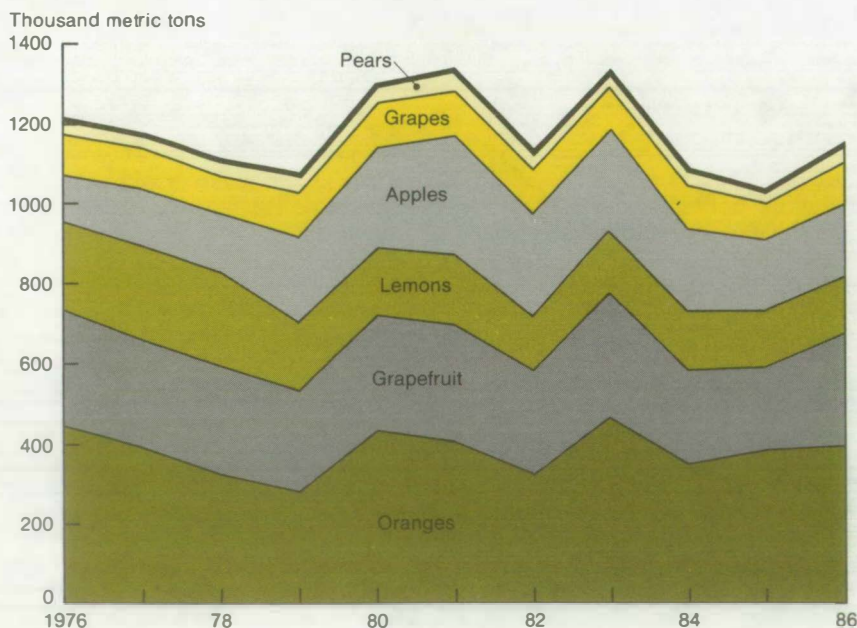
U.S. fresh citrus exports generally declined in the first half of the 1980's, compared with the level of the second half of the 1970's, primarily because of reduced supplies and increased prices here at home. Freezes in Florida and Texas affected orange and grapefruit production in the early 1980's. Consequently, the price of fresh oranges and grapefruit rose substantially above mid-1970's levels. Reduced supplies and strong domestic demand strengthened fresh lemon prices in the last decade.

Exports of fresh oranges fluctuated from a low of 281,318 metric tons (mt) in 1979 to a high of 462,710 mt in 1983. However, because exports tend to vary from year to year, averages sometimes offer a better comparison. For example, between 1976-78 and 1984-86, fresh orange exports fell 3 percent. Furthermore, the destinations for U.S. oranges changed. Canada was a leading customer until 1985. But with the appreciation of the U.S. dollar against the Canadian dollar, exports to Canada declined substantially. Hong Kong replaced Canada as the leading importer of U.S. fresh oranges (*table 2*). Since the United States and Japan signed a new trade agreement in 1984 to increase the Japanese quota for fresh oranges, that country became a major importer of U.S. oranges. In 1986, five countries—Hong Kong, Canada, Japan, Singapore, and Malaysia—accounted for 95 percent of our fresh orange exports.

Table 2. Canada and Pacific Countries Are Leading Importers of U.S. Fresh Fruit

Commodity and importing country	U.S. exports	
	1980	1986
	<i>Metric tons</i>	
Oranges		
Hong Kong	110,575	125,168
Canada	145,525	112,957
Japan	62,738	109,987
Singapore	17,908	16,312
Malaysia	5,065	8,371
Other	91,033	18,553
Grapefruit		
Japan	128,992	156,200
France	41,799	46,479
Canada	57,714	26,710
Netherlands	38,586	23,137
Taiwan	0	7,495
Other	20,417	22,046
Lemons		
Japan	101,638	122,792
Canada	15,393	9,405
Hong Kong	4,423	5,574
Netherlands	4,834	1,689
South Korea	106	1,157
Other	42,096	4,661
Apples		
Taiwan	49,412	42,759
Canada	54,915	30,566
Hong Kong	17,435	19,863
Saudi Arabia	21,814	15,364
United Kingdom	9,521	9,224
Other	97,794	60,042
Grapes		
Canada	88,144	57,011
Hong Kong	7,966	14,007
Taiwan	802	12,784
Japan	1,355	4,821
Singapore	3,408	3,791
Other	16,206	16,082
Pears		
Canada	19,626	15,898
Sweden	6,588	7,988
Saudi Arabia	955	3,666
Mexico	2,758	1,878
United Arab Emirates	2,260	1,763
Other	11,834	5,799

Figure 2. U.S. Fresh Fruit Exports Fluctuated



Source: Bureau of the Census, Department of Commerce.
Contact: Ben Huang (202) 786-1884.

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Processed Fruit Exports

Raisins and prunes are the two major dried fruits the United States exports (figure 3). Very large quantities were shipped to Japan, Canada, and Western Europe during the last 3 years. U.S. raisins lost some EC markets in the early 1980's because of large South African and Australian shipments to the Community. The weak dollar has boosted sales in recent years.

Because of increased competition in the world markets, promotional activities of the Targeted Export Assistance (TEA) Program—which helps some commodity groups promote their products overseas—contributed to the rise in U.S. raisin and prune shipments in 1986. Japan—our major customer for these two dried fruits—along with the United Kingdom, West Germany, Denmark, and Sweden accounted for 65 percent of all raisin ex-

ports that year (table 3). Approximately 55 percent of all prune exports went to Japan, Italy, West Germany, the United Kingdom, and Canada.

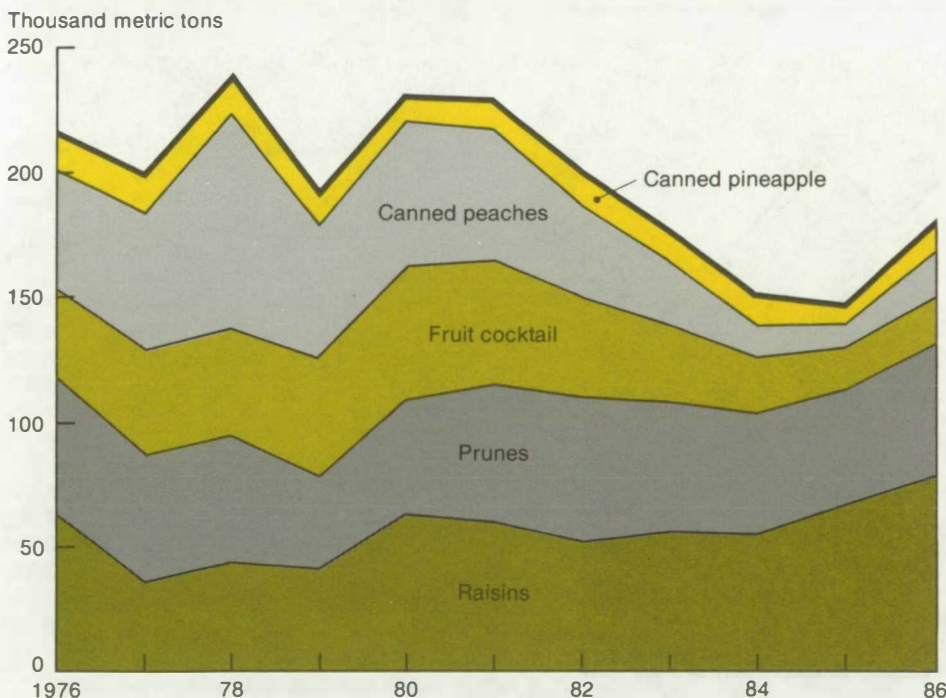
Our exports of canned fruit generally remained strong from the mid-1970's to 1981. But competition from other major producing countries, such as Greece, Italy, Spain, and South Africa, forced our exports down sharply between 1982 and 1985. EC subsidies also affected U.S. sales. In addition, several other factors reduced shipments, namely increased noncitrus production in Western Europe and Latin America, the strong U.S. dollar in the mid-1980's, tariff and nontariff barriers imposed by importing countries, and export subsidies in other producing countries. The weak dollar and the TEA Program helped exports improve significantly in 1986. Nevertheless, comparisons of the 1976-78 and 1984-86

averages show that exports of canned fruit cocktail, canned peaches, and canned pineapple fell 53, 78, and 33 percent, respectively.

Table 3. Japan Is a Leading Importer of U.S. Processed Fruits

Commodity and importing country	U.S. exports	
	1980	1986
<i>Metric tons</i>		
Dried Fruit		
Raisins		
Japan	15,157	20,815
United Kingdom	7,348	13,057
West Germany	7,570	6,657
Denmark	2,010	5,131
Sweden	3,275	5,129
Other	27,430	26,959
Prunes		
Japan	3,482	8,055
Italy	8,166	7,921
West Germany	4,749	7,003
United Kingdom	1,227	3,181
Canada	3,385	3,110
Other	25,300	24,388
Canned Fruit		
Fruit cocktail		
Japan	3,881	3,827
Canada	15,709	3,586
Hong Kong	3,132	2,640
Panama	1,153	1,063
Singapore	2,833	961
Other	27,230	6,667
Peaches		
Japan	12,921	10,000
Canada	19,299	2,905
Taiwan	1,150	1,251
Panama	570	686
Norway	1,309	473
Other	22,281	2,575
Pineapples		
Canada	5,067	4,744
Philippines	0	2,585
Hong Kong	11	841
Netherlands	687	741
West Germany	762	530
Other	2,654	627

Figure 3. U.S. Processed Fruit Exports Gained in 1986



Source: Bureau of the Census, Department of Commerce. Contact: Ben Huang (202) 786-1884.

Source: Bureau of the Census, Department of Commerce.

Contact: Ben Huang (202) 786-1884.

U.S. Imports of Fresh Fruit

U.S. imports of three major noncitrus fruits—apples, bananas, and pineapples—rose sharply between 1976 and 1986 (figure 4). Increased demand for these fruits and high orange prices contributed to the rise. Our imports of fresh apples during the 10 years fluctuated from a low of 49,437 metric tons in 1977 to 71,870 mt in 1982 and then steadily increased to a high of 131,851 in 1986. Canada was still a leading supplier that year, but large quantities of Granny Smith apples from Southern Hemisphere countries and France boosted our fresh apple imports. Canada, Chile, New Zealand, South

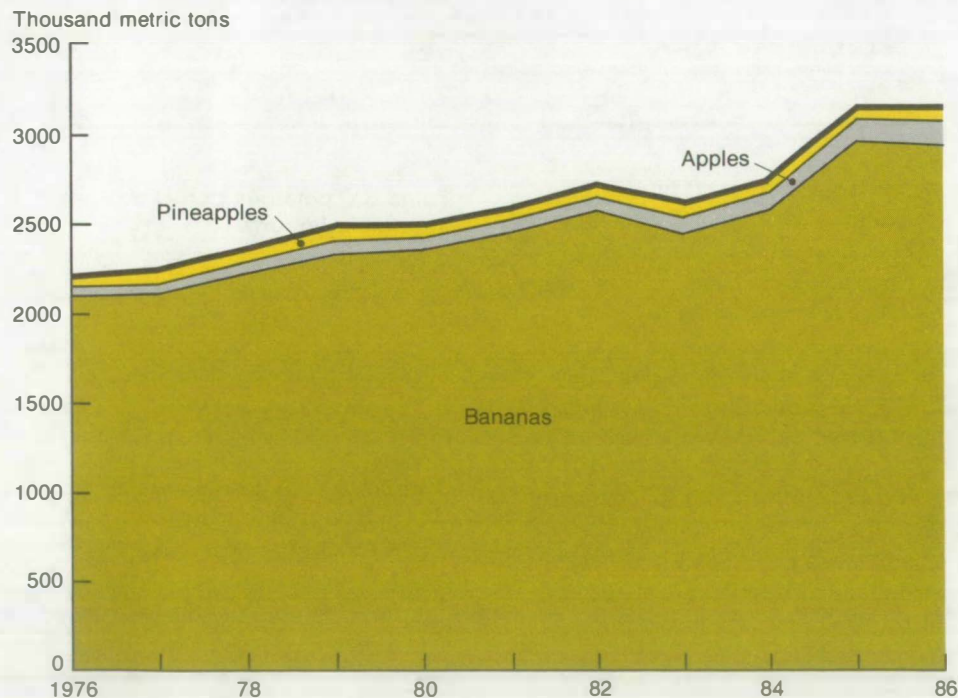
Africa, and France accounted for 97 percent of the apples we imported in 1986.

The United States has also been importing more and more bananas recently. The sharp rise in fresh orange prices after the Florida and Texas freezes earlier in this decade caused consumers to shift to bananas. Imports rose 31 percent between 1976-78 and 1984-86. Ecuador is our leading supplier, with Costa Rica, Colombia, Honduras, and Guatemala rounding out the top five (table 4). Together, they accounted for 88 percent of our 1986 banana imports.

During those 10 years, fresh pineapple imports fluctuated from a high of 77,292

mt in 1983 to a low of 53,692 mt in 1985, but in comparing the 1976-78 average with the 1984-86 average, imports rose slightly. Most of these pineapples came from Mexico and other Central American countries. Imports from Costa Rica—now a leading supplier—increased from 520 mt in 1980 to 32,898 in 1986. Mexico was number one in 1980, providing 42,339 mt. But by 1986, Mexican shipments dropped to 3,012 mt. Five countries—Costa Rica, Honduras, Dominican Republic, Mexico, and Guatemala—supplied the United States with 98 percent of its fresh pineapple imports.

Figure 4. U.S. Fresh Noncitrus Fruit Imports Rose Sharply Between 1976 and 1986



Source: Bureau of the Census, Department of Commerce.
Contact: Ben Huang (202) 786-1884.

Table 4. Many Countries Provide the United States with Fresh Fruit

Commodity and exporting country	U.S. imports	
	1980	1986
	<i>Metric tons</i>	
Apples		
Canada	36,408	44,565
Chile	10,167	31,041
New Zealand	13,007	26,918
South Africa	8,320	13,454
France	2,813	11,250
Other	439	4,405
Bananas		
Ecuador	523,500	733,400
Costa Rica	476,100	561,500
Colombia	210,800	511,700
Honduras	667,800	507,600
Guatemala	221,700	282,300
Other	252,500	346,500
Pineapples		
Costa Rica	520	32,898
Honduras	26,105	24,302
Dominican Republic	0	11,516
Mexico	42,339	3,012
Guatemala	40	1,518
Other	2	1,282

Source: Bureau of the Census, Department of Commerce.

Contact: Ben Huang (202) 786-1884.

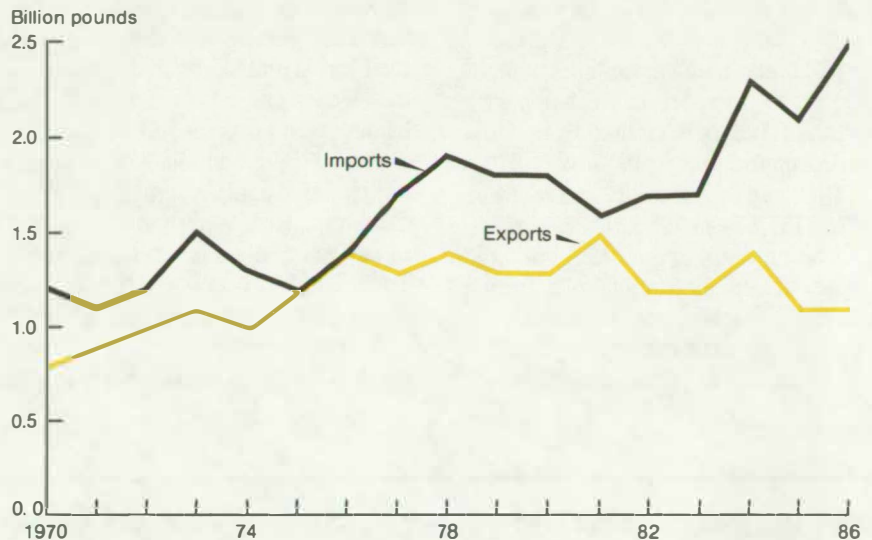
The Fresh Vegetable Trade

U.S. exports of fresh vegetables increased between 1970 and 1986, growing slightly more than 2 percent per year, according to official U.S. counts (figure 5). However, the figures may be under-reported since official import data from Canada, our biggest fresh vegetable customer, have been higher than the comparable U.S. export numbers in recent years.

Of the major fresh vegetables we shipped during the period, lettuce, onions, tomatoes, and celery were the leaders (table 5). Increased demand for fresh vegetables in Canada—combined with a shorter growing season there—led to more vegetable imports into that country.

U.S. imports of fresh vegetables rose significantly between 1970 and 1986, approximately 4 percent per year. During

Figure 5. The United States Imported More Fresh Vegetables Than It Exported in 1986¹



¹Includes lima beans, other beans, beets, broccoli, brussel sprouts, cabbage, carrots, cauliflower, celery, corn-on-cob, cucumber, eggplants, endive, garlic, lettuce, okra, onions, peas, peppers, radishes, squash, tomatoes, and turnips.
Source: Bureau of the Census, Department of Commerce.
Contact: Amy Allred (202) 786-1886.

Table 5. Lettuce Was An Important U.S. Export Between 1970 and 1986

Item	U.S. exports		
	1970	1980	1986
	<i>Thousand pounds</i>		
Asparagus	6,781	16,367	11,235
Broccoli	na	40,616	48,376
Carrots	50,628	62,464	58,956
Cauliflower	na	18,428	31,630
Celery	92,762	136,300	113,981
Sweet corn	na	34,648	29,460
Lettuce	250,518	302,106	311,537
Onions	147,160	256,554	164,407
Tomatoes	89,170	263,038	128,331
Melons ¹	52,339	37,588	84,126

na = not available. ¹Includes cantaloupe and honeydew.

Source: Bureau of the Census, Department of Commerce.

Contact: Amy Allred (202) 786-1886.

the 1970's, U.S. imports hit highs in 1973 and 1978 at 1.5 and 1.9 million pounds, respectively. During the 1980's, imports have been fueled by Americans' ever increasing desire for fresh vegetables. On average, per capita U.S. consumption rose from 79 pounds in 1981 to 90 pounds in 1986. Consequently, imports climbed from 1.6 billion to 2.5 billion pounds during the period.

Most of our fresh vegetable imports come from Mexico during the winter months when U.S. supplies are low. In general, imports peak in February, then drop to their lowest points in July, August, and September when domestic supplies are ample. Tomatoes were, by far, the leading fresh imported vegetable between 1970 and 1986 (table 6). Onion and carrot imports were also substantial. Of the other major fresh vegetables, we purchased smaller amounts of asparagus and lettuce.

Table 6. Tomatoes Led U.S. Fresh Vegetable Imports

Item	U.S. imports		
	1970	1980	1986
	<i>Thousand pounds</i>		
Asparagus	na	7,242	23,647
Broccoli	na	666	8,349
Carrots	56,185	108,681	113,950
Cauliflower	57	7,293	13,126
Celery	19	4,863	14,767
Sweet corn	na	952	7,676
Lettuce	2,337	15,157	20,432
Onions ¹	76,333	132,831	247,647
Tomatoes	646,724	651,737	981,110

na = not available. ¹Includes pearl onions and onion sets.

Source: Bureau of the Census, Department of Commerce.

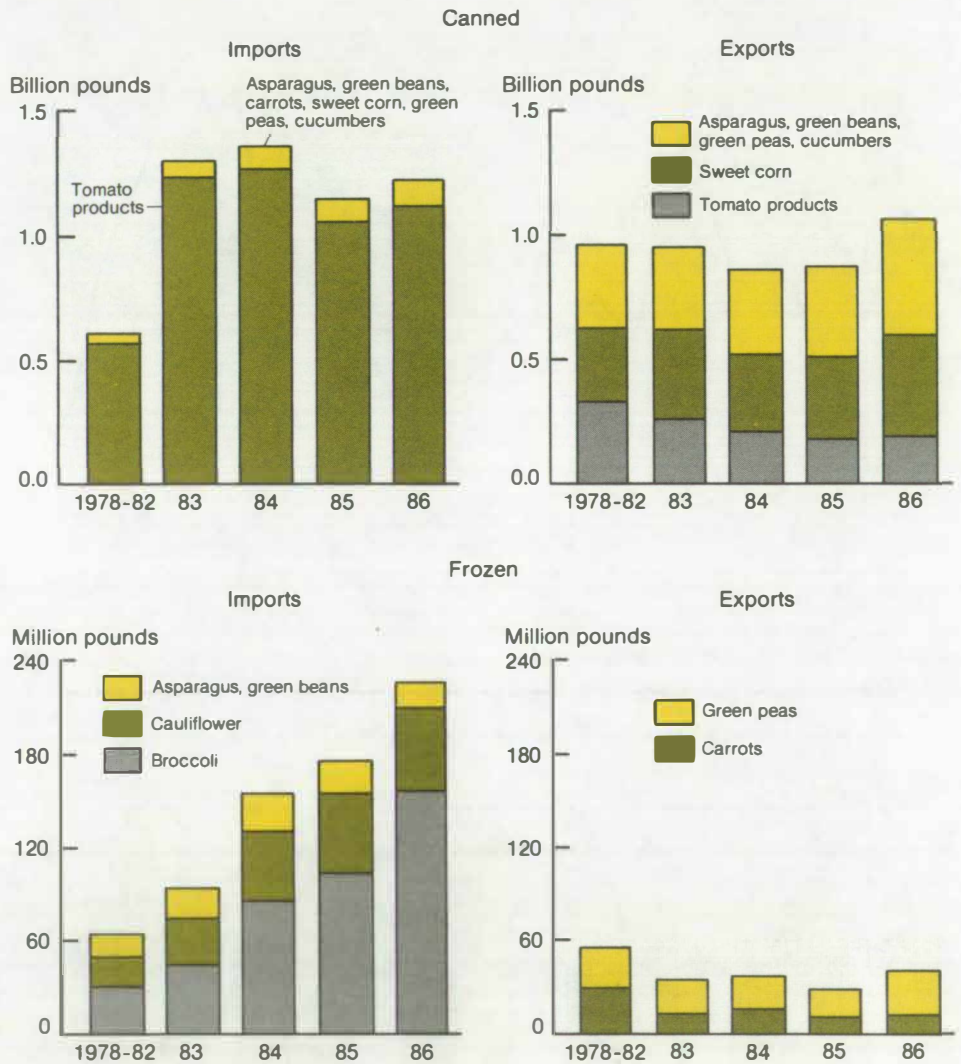
Contact: Amy Allred (202) 786-1886.

Exports and Imports of Processed Vegetables

On the export side of the picture, U.S. canned vegetable shipments rose between 1978 and 1986 by almost 2 percent annually. Sweet corn and tomato products accounted for most of those exports (figure 6). However, the United States did supply other countries with smaller amounts of asparagus, green beans, cucumbers (pickles), and green peas. Our exports of frozen carrots were down almost 9 percent from 1978 to 1986. Green pea shipments were up just over 1 percent and frozen sweet corn, up over 8 percent. Overall, frozen vegetable exports increased 4 percent during the period. Foreign demand for frozen vegetables has paralleled that of the United States. The commodity promotional efforts of the TEA Program and the falling value of the dollar prompted the rise in both canned and frozen shipments.

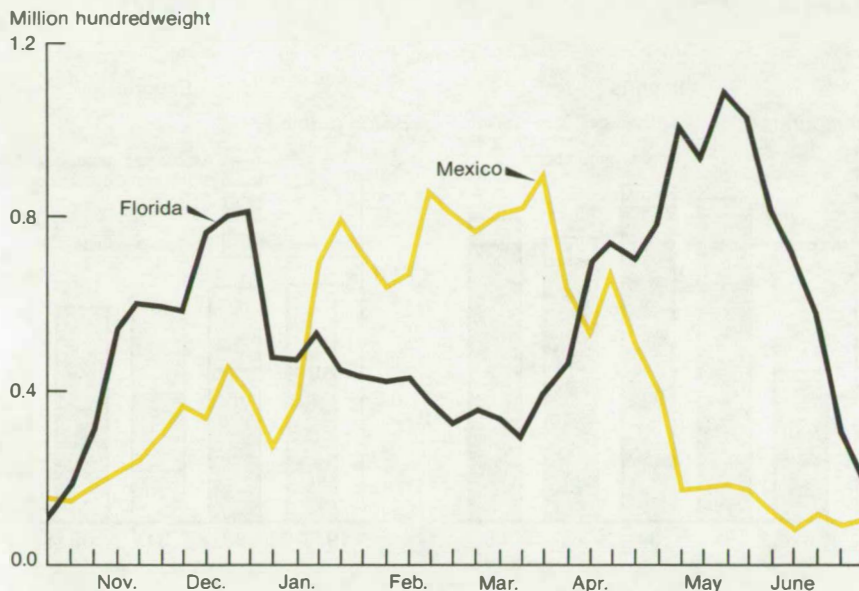
The United States increased its imports of canned vegetables over 11 percent from 1978 to 1986. Tomato products were the largest component. Other canned imports included asparagus, green beans, carrots, sweet corn, green peas, and cucumbers. The demand for canned vegetables was slower than the demand for their frozen counterparts. This follows the general consumer trend of buying more fresh and frozen vegetables and less canned. Our imports of frozen vegetables rose about 16 percent from 1978 to 1986. Broccoli and cauliflower were the dominant frozen imports, with lesser amounts of asparagus and green peas.

Figure 6. The United States Imported More Canned and Frozen Vegetables Than It Exported in 1986¹



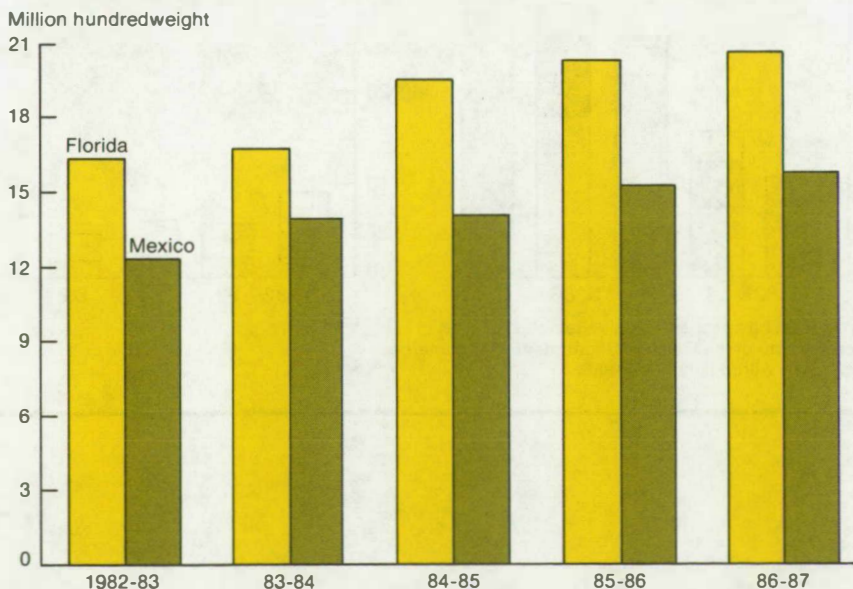
¹Farm-weight basis for selected vegetables.
 Source: Bureau of the Census, Department of Commerce.
 Contact: Amy Allred (202) 786-1886.

Figure 7. Florida and Mexico Provide a Steady Supply of Winter Vegetables¹



¹Winter shipments of fresh tomatoes, cucumbers, peppers, squash, eggplant, and green beans during 1986 and 1987.
 Source: *Fresh Fruit and Vegetables: Weekly Summary—Shipments and Arrivals*, Agricultural Marketing Service, USDA, various issues.
 Contact: Catherine Green (202) 786-1886.

Figure 8. Vegetable Shipments From Florida and Mexico Have Risen Steadily¹



¹October to June marketing year. Includes fresh tomatoes, cucumbers, peppers, squash, eggplant, and green beans.
 Source: *Fresh Fruit and Vegetables: Weekly Summary—Shipments and Arrivals*, various issues.
 Contact: Catherine Greene (202) 786-1886.

Competition in the U.S. Winter Vegetable Market

Over 90 percent of U.S. tomato supplies from December through early May come from Florida and Sinaloa, Mexico. Other tender fresh vegetables from these two regions—which enjoy favorable winter-season growing conditions—include cucumbers, peppers, squash, eggplant, and green beans. Florida’s shipments peak in December and early May. Mexico complements Florida’s mid-winter dip in production with peak shipments during January through March (figure 7).

Winter supplies of these six vegetables increased steadily during the last 5 years because of increased consumer demand for fresh vegetables. Florida’s shipments during the mid-October through June season grew 5 percent each year—from 16.3 million hundredweight (cwt) in the 1982/83 season to 20.6 million cwt in 1986/87 (figure 8). Mexican shipments also rose 5 percent during this period, from 12.3 million cwt in 1982/83 to 15.7 million cwt in 1986/87.

Although a highly competitive atmosphere surrounds the U.S. winter vegetable market, Florida and Mexico have maintained fairly constant market shares during the past five seasons. Florida’s vegetable production averaged 51 percent of total shipments mid-October through June, while Mexico’s shipments averaged 39 percent.

Mexican growers generally enjoy lower production costs than Florida growers and also benefit from having peak shipments during the period of high mid-winter prices. However, Florida growers remain competitive because Mexican growers face higher transportation costs and import and export duties. Despite periodic attempts by Florida growers to erect nontariff barriers, free trade essentially exists between the United States and Mexico during the winter months for fresh vegetables.

Processed Vegetable Exports to Pacific Rim Countries

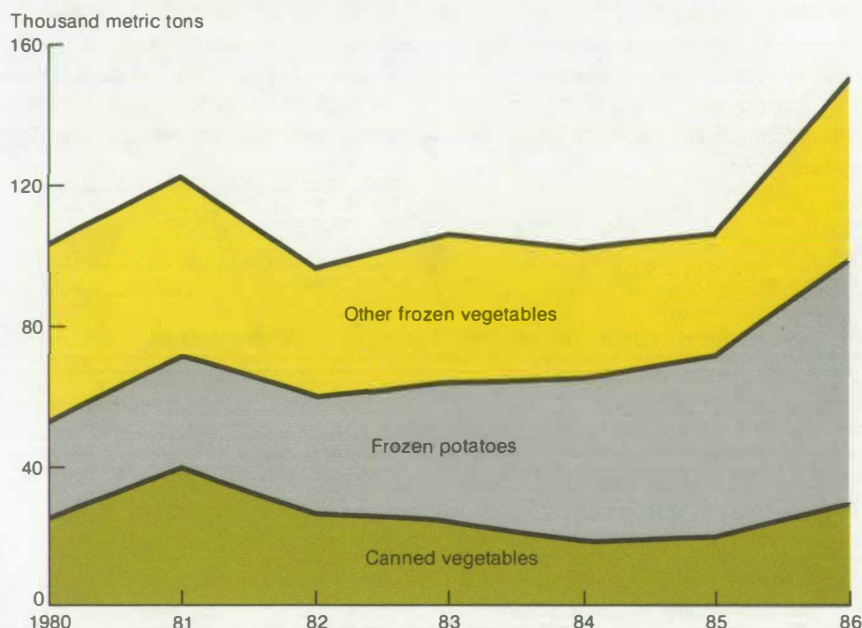
Frozen and canned vegetables accounted for about 19 percent of the volume of all U.S. vegetables exported in 1986. Shipments of processed vegetables to Japan, Hong Kong, Singapore, and Taiwan have been rising in recent years. In 1986, these four countries accounted for 26 percent of the total volume of U.S. agricultural exports, about 60 percent of all our processed vegetable exports, and 21 percent of total U.S. vegetable exports. Japan has been the most important market by far, especially in the frozen vegetable trade (figure 9).

The growing popularity of fast-food restaurants among the Japanese caused demand for frozen potatoes—specifically french fries—to jump 160 percent since 1980. Similar trends in frozen potato demand occurred in other Pacific Rim countries (table 7).

Another factor in demand for frozen foods could be the interest of Japanese consumers in large "American style" refrigerators and freezers. Small refrigerators were favored in the past because daily food shopping was a normal part of Japanese life, and there was little need to store food for long periods of time. These cultural changes bode well for future U.S. frozen food exports to Japan.

While exports of fresh and frozen vegetables from the United States rose, canned vegetables have lost some of their market share since 1980. The volume of canned vegetables exported in 1986 rose above 1985 levels, but at 129.2 million metric tons, was still 18 percent below the 1980 total. Roughly one-third of this volume was shipped to Japan, Hong Kong, and Taiwan. Japan—our largest customer for canned sweet corn—accounted for 23 percent of the U.S. canned vegetables exported in 1986, a 15-percent rise in volume above 1980.

Figure 9. Japan Has Been an Important Market For U.S. Frozen Vegetables



Source: *Foreign Agricultural Trade of the United States*, ERS, USDA, various issues.
Contact: Gary Lucier (202) 786-1884.

Table 7. Frozen Potatoes Are an Important U.S. Export to Pacific Countries

Importing country and commodity	U.S. exports			
	Quantity		Value	
	1980	1986	1980	1986
	Metric tons		Thousand dollars	
Japan				
Processed vegetables	103,062	150,514	64,147	107,316
Frozen	77,530	121,224	45,617	84,167
Potatoes	26,546	69,272	17,354	48,311
Others ¹	50,984	51,952	28,263	35,856
Canned	25,532	29,290	18,530	23,149
Hong Kong				
Processed vegetables	11,670	14,864	9,355	11,871
Frozen	5,398	6,977	3,759	4,812
Potatoes	2,590	5,265	2,045	3,538
Others ¹	2,808	1,712	1,714	1,274
Canned	6,272	7,887	5,596	7,059

¹Includes carrots, sweet corn, peas, and others.

Source: *Foreign Agricultural Trade of the United States*, various issues.

Contact: Gary Lucier (202) 786-1884.

Canadian Vegetable Imports

Canadians and Americans share similar eating habits. And like Americans, Canadians are consuming more fresh vegetables. This is the primary reason for the annual 6-percent growth in Canadian imports of fresh vegetables (*table 8*).

Not surprisingly, Canadian broccoli and cauliflower imports, primarily from Mexico, rose substantially since 1981—10 and 12 percent per year, respectively. Demand for broccoli and cauliflower in the United States also increased. This stimulated higher production and higher imports.

Canadian imports of dried and canned vegetables declined between 1984 and 1986, again, matching U.S. trends. Shipments of these goods to Canada fell 5 and 14 percent, respectively, each year during the last 3 years.

Table 8. Canadian Vegetable Imports Parallel U.S. Consumption

Commodity	Canadian imports						Annual average growth rate
	1981	1982	1983	1984	1985	1986	
	<i>Thousand dollars</i>						<i>Percent</i>
Fresh vegetables ¹	444,686	458,626	483,687	528,078	531,093	601,339	6.04
Lettuce	67,697	83,057	83,503	75,182	85,471	107,490	9.25
Tomatoes	70,138	74,473	82,726	85,836	89,464	102,755	7.64
Celery	30,062	30,375	35,767	39,305	32,204	39,808	5.62
Peppers	22,619	22,036	28,159	26,717	29,158	33,063	7.59
Broccoli	19,300	21,406	24,381	27,690	29,003	32,074	10.16
Cauliflower	15,647	16,145	19,737	23,775	25,100	28,912	12.28
Dried vegetables	na	na	na	19,488	16,396	17,507	-5.36
Canned vegetables, including juices	na	na	na	8,984	7,027	6,801	-13.92

na = not available. ¹Total does not represent the sum of the individual vegetables.

Source: *Vegetable Market Review on Selected Commodities*, Market Information Service, Agriculture Development Branch, Agriculture Canada, Ottawa.

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The Spice Trade

The United States produces only three major spices—capsicum (red pepper), paprika, and mustard—in any profitable degree. The remaining spices need to be imported (*table 9*). Unground or unprocessed spices enter duty-free, while tariffs are generally applied to processed

spices. Most spices imported into this country are unground or unprocessed.

Four factors contributed to our expanded imports of spices—health concerns, taste, income, and price. In the last 10 to 15 years, Americans have become concerned about the use of salt in their diets. Salt—with its link to high

blood pressure—is a prime target for people looking to limit health risks. Manufacturers have met this need by offering consumers a variety of ready-to-use spice mixtures.

At the same time, Americans learned to flavor their foods with a wider variety of spices. This was the second factor—tastes were changing. Ethnic restaurants sprang up in every city and town in the United States, and with the ethnic cuisine came new ways of flavoring food.

Income growth was the third factor. Not only were Americans experimenting with new tastes, but higher levels of disposable income encouraged the growth of all kinds of restaurants, not just ethnic ones.

The fourth factor has been the relative price level of spices. Of the 22 spices listed, only five increased significantly in price. Mace, mustard, pepper, sage, and vanilla bean prices all rose at a rate exceeding the average inflation rate of 7 percent since 1970.

Table 9. U.S. Spice Imports Rose During The Past Two Decades

Spice	U.S. imports ¹				
	1965-69	1970-74	1975-79	1980-84	1985-86
	<i>Thousand pounds</i>				
Anise seed	424	571	988	1,407	1,968
Capsicum	14,164	13,743	10,201	13,879	17,226
Caraway seed	6,970	5,910	6,458	7,511	8,033
Cassia	10,361	8,910	15,530	20,513	25,506
Celery seed	3,224	3,984	4,244	4,661	5,648
Cinnamon	4,216	5,007	3,056	2,870	2,736
Cloves	2,458	2,672	2,484	2,094	2,390
Coriander seed	2,998	3,425	6,796	10,387	6,380
Cumin seed	3,964	6,207	8,121	8,808	8,358
Fennel seed	893	1,261	1,927	3,400	4,230
Ginger root	4,229	5,901	7,842	9,477	11,850
Mace	579	567	543	644	562
Mustard seed	56,422	89,724	76,053	79,521	101,946
Nutmeg	4,233	4,166	4,442	4,767	4,364
Paprika	12,069	15,282	12,339	10,506	16,560
Black and white pepper	49,744	54,195	58,975	72,543	81,522
Pimento	1,131	1,370	1,482	1,650	1,625
Poppy seed	6,649	5,745	6,080	7,171	9,165
Sage	2,260	2,958	2,887	3,675	4,518
Sesame seed	32,472	49,077	62,525	80,373	79,233
Tumeric	3,096	3,321	3,202	3,706	4,460
Vanilla beans	1,871	2,194	2,298	1,625	1,920
Total ²	224,427	286,190	298,473	351,188	400,200

¹Annual averages. ²Total is for spices listed. The United States also imports limited amounts of other spices.

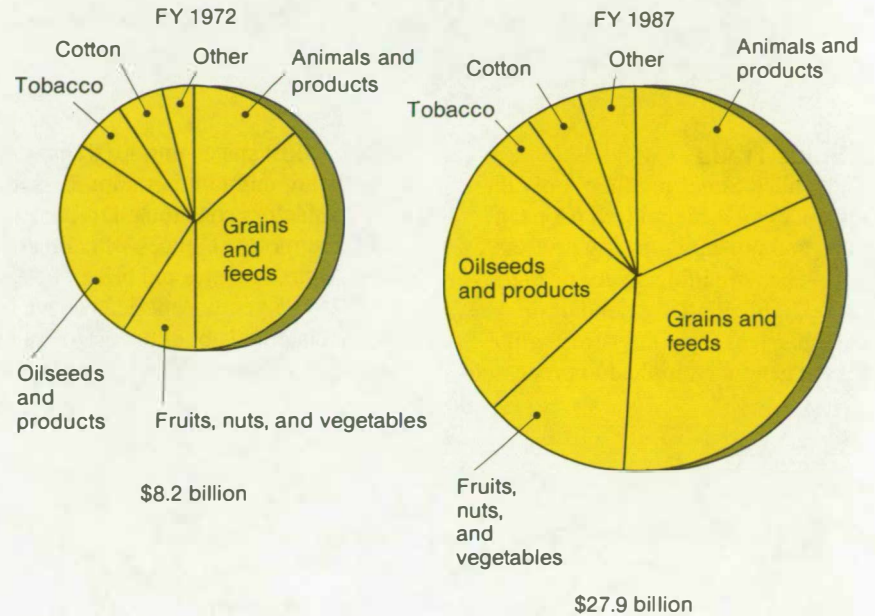
Source: Bureau of the Census, Department of Commerce.

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U.S. Agricultural Trade . . . At a Glance

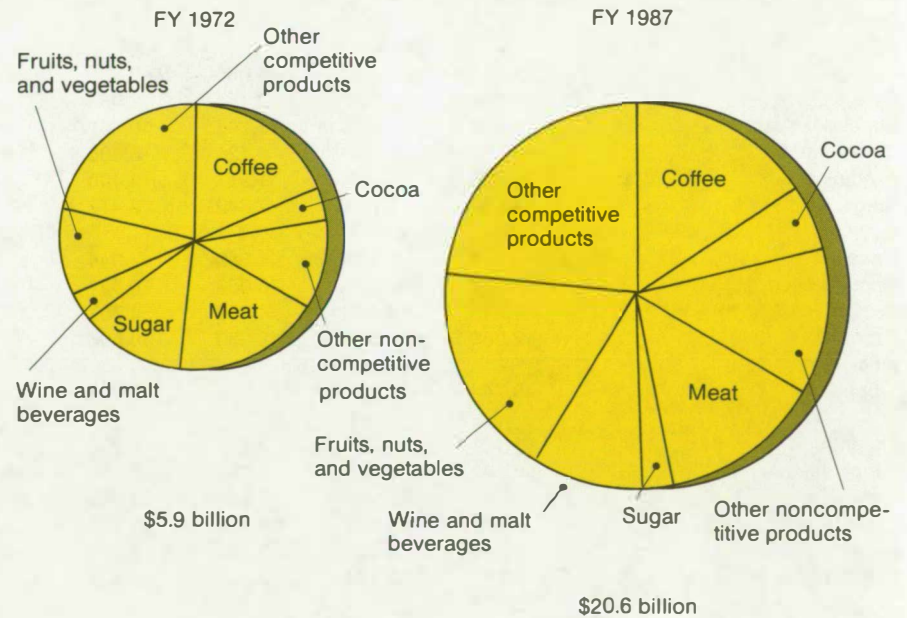
In fiscal 1972, the United States was on the brink of an export expansion that lasted 9 years. Led by grains and oilseeds, exports reached \$43.8 billion in 1981 before declining during the 1980's. Since 1981, animal products, fruits, nuts, vegetables, and other processed and semi-processed products played a more important role in U.S. exports. In fact, in fiscal 1987, a record amount—\$15.9 billion—of processed products were exported.

Grains and Oilseeds Accounted for Most U.S. Farm Exports



Imports of agricultural products increased three and a half times in value between fiscal 1972 and 1987. Imports can be classified as competitive or noncompetitive, depending on whether the product can be produced profitably, on a large scale, in the United States. Although the ratio of competitive and noncompetitive products to total imports is the same for 1972 and 1987, substantial change occurred. Sugar imports fell 39 percent as a result of restrictive quotas in the last 5 years. Meat imports were also under quota, albeit a less restrictive one. Meanwhile, wine and malt beverages, fruits, nuts, vegetables, and other competitive products—which, when combined, came to one-third of all agricultural imports in 1972—accounted for over half of total imports.

Competitive Products Made Up More Than Half of U.S. Agricultural Imports



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