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AGRICULTURE IN THE NORTH AMERICAN FREE TRADE AGREEMENT

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NOTES

Details in the text and tables of this report may not add to totals because of rounding.

This report uses agricultural trade statistics from the U.S. Department of Agriculture, which were derived from official data released by the Bureau of the Census. The Department of Agriculture defines agricultural commodities as (1) nonmarine food products and (2) other products of agriculture, including fibers, raw hides and skins, fats and oils, and beer and wine that have not passed through complex processes of manufacture. Such manufactured products as textiles, leather, boots and shoes, cigarettes, naval stores, forestry products, and distilled alcoholic beverages are not considered agricultural.

A crop year (or marketing year) is the 12-month period beginning around the time of harvest. Crop years are identified by the calendar year in which the crop is harvested. For example, the 1992 crop year for cotton in the United States extends from August 1992 through July 1993. The marketing year for sugar in Mexico begins in November and ends in October. Unless otherwise noted in the report, all years refer to calendar years.

On December 17, 1992, the leaders of the United States, Mexico, and Canada signed the proposed North American Free Trade Agreement (NAFTA). Copies of the document, *North American Free Trade Agreement Between the Government of the United States of America, the Government of Canada, the Government of the United Mexican States*, are available through the U.S. Government Printing Office. Unless otherwise noted, all references to NAFTA refer to that document.

PREFACE

At the close of 1992, the leaders of the United States, Canada, and Mexico took a major step toward freer trade in North America by signing the North American Free Trade Agreement (NAFTA). NAFTA would promote U.S.-Mexican trade in agriculture by removing barriers to trade between the two countries, but the overall effect on agriculture in the United States would be modest. This paper provides detailed information about U.S.-Mexican trade in agriculture, NAFTA's provisions for market access in agriculture, and the potential effect of the agreement on U.S.-Mexican trade and the U.S. Treasury. It also provides background information about market conditions in Mexico.

Victoria A. Greenfield of the Congressional Budget Office's (CBO's) Natural Resources and Commerce Division wrote the report under the supervision of Jan Paul Acton and Roger Hitchner. Aaron Zeisler provided research assistance. Eileen M. Manfredi and Elliot Schwartz of CBO offered insightful comments and helpful criticism. The author wishes to thank Mary E. Burfisher, Joseph W. Glauber of the Department of Agriculture, Charles E. Hanrahan of the Congressional Research Service, and Karen E. Thierfelder for their constructive comments.

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Robert D. Reischauer
Director

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SUMMARY AND INTRODUCTION

At the close of 1992, the leaders of the United States, Canada, and Mexico took a major step toward freer trade in North America by signing the North American Free Trade Agreement (NAFTA). If the agreement is implemented, it would create the world's largest free-trade area. Specifically, NAFTA would extend Mexico's open-market strategy for economic development and reduce barriers to trade and investment throughout North America.[1] The agreement specifies a starting date of January 1, 1994. To meet that deadline, the U.S. Congress must take up the enabling legislation for the agreement in 1993.

NAFTA provides rules, guidelines, and procedures for creating and maintaining the free-trade area. It is compatible with the General Agreement on Tariffs and Trade (GATT) and builds on earlier agreements--for example, the U.S.-Mexican Framework of Principles and Procedures for Consultations Regarding Trade and Investment Relations of 1987, the Trade and Investment Facilitation Talks of 1989, and the Canada-U.S. Free Trade Agreement (CFTA) of 1989. In the preamble to NAFTA, the United States, Canada, and Mexico resolve to "build on their respective rights and obligations under the General Agreement on Tariffs and Trade and other multilateral and bilateral instruments of cooperation." Article 103 of NAFTA defines its relation to other agreements: "The Parties affirm their existing rights and obligations with respect to each other under the General Agreement on Tariffs and Trade and other agreements to which such Parties are party." In the event of an inconsistency between NAFTA and other agreements, however, NAFTA would generally "prevail to the extent of the inconsistency."

Although NAFTA is compatible with the GATT, it reaches beyond that multilateral agreement in its treatment of agriculture. Chapter 7 of NAFTA contains two bilateral agreements regarding access to agricultural markets--one between the United States and Mexico, the other between Canada and Mexico. Each addresses a number of issues, including customs duties and quantitative restrictions on imports, standards for grading and marketing, and special safeguards for import-sensitive agricultural products. NAFTA also contains specific rules of origin for trade in some agricultural products, as well as a set of trilateral provisions regarding subsidies for agricultural exports, domestic farm supports, and

1. Strictly defined, a free-trade agreement would eliminate all tariff and nontariff restrictions on trade between member countries but would not create a common external commercial policy or require free movement of factors of production, such as labor and capital, from one member country to another. Because NAFTA contains specific provisions to reduce barriers to investment, it is a broader document than a "textbook" free-trade agreement.

sanitary and phytosanitary requirements. For the most part, the rules of CFTA on tariff and nontariff barriers would still apply to trade in agriculture between the United States and Canada.

NAFTA would promote U.S.-Mexican trade in agriculture by removing barriers to trade between the two countries, but the overall effect on agriculture in the United States would be modest. The agreement could also affect the cost of U.S. programs of support for agriculture and revenues from import tariffs on Mexican agricultural products. The net impact on the U.S. Treasury, however, would be small.

Looking at each country's farm sector as a whole, most analysts have concluded that producers in the United States would gain from the agreement, while producers in Mexico would lose. For producers of some commodities, however, those generalizations would not hold. NAFTA could help U.S. producers of grains, oilseeds, and animal products, but it might hurt U.S. producers of some fruits and vegetables. In Mexico, losses for producers of corn could be significant and might affect employment and migration. Transition periods of from 5 to 15 years in some instances would allow both countries to adjust to freer trade.

NAFTA is not expected to have a dramatic effect on trade in agriculture between Canada and Mexico or between Canada and the United States (see the appendix). The volume of trade between Canada and Mexico is small, and a substantial change under NAFTA is unlikely. With regard to trade between Canada and the United States, it is doubtful that the provisions for agriculture in NAFTA would add much to the changes that are already occurring under CFTA. Because NAFTA would primarily affect trade in agriculture between the United States and Mexico, most analyses, including this one, focus on interactions between the U.S. and Mexican farm sectors and the potential effect of the agreement on those sectors.

MEXICAN AGRICULTURE

Agriculture in Mexico employs a large proportion of the country's work force and accounts for a significant fraction of Mexico's gross domestic product (GDP). The Mexican farm sector produces a wide range of commodities, in some cases by using "traditional" production systems, and in others, "modern" methods. Mexico's most important agricultural products include corn, dry edible beans, cattle, swine, poultry, tomatoes,

potatoes, peppers, melons, onions, and other horticultural crops. Some tropical commodities--such as coffee and sugarcane--are also prominent. The Mexican farm sector grew moderately in 1990 and 1991 after an extended period of stagnation in the 1980s.

Mexico's policies toward agriculture and its land-tenure laws have had a profound effect on the structure and productivity of its farm sector. In many instances, they have discouraged investment and promoted inefficiency. In recent years, however, the Mexican government has introduced policy reforms that have reduced its influence over decisions about production, marketing, and consumption. Those reforms have the potential to help modernize and improve the efficiency of the country's farm sector, but they could also lead Mexico into a difficult period of transition. NAFTA could ease that transition if it provides Mexico with access to new markets and new opportunities for economic expansion in other sectors.

Production

Agriculture is an important element of Mexico's economy.[2] It accounts for about 9 percent of the country's GDP and employs roughly 26 percent of its active work force. Mexico has approximately 57 million acres of arable land, or 0.7 acres for each person. (In comparison, the United States has about 464 million acres of arable land, or 1.9 acres for each person.)

Diversity is a prime characteristic of agriculture in Mexico. The sector includes subsistence farms and commercial enterprises, irrigated and nonirrigated cropland, and range-fed and confined livestock operations. Comparisons of the average yields for an acre of land in the United States and in Mexico reveal lower averages for some commodities in Mexico and commonly reflect differences in methods of production and lags in technology. A recent report from the U.S. Department of

2. This section draws material from several publications of the Department of Agriculture's Economic Research Service: *Agriculture in a North American Free Trade Agreement: Analysis of Liberalizing Trade Between the United States and Mexico* (July 1992); *The Mexican Economy in the 1990's: Markets Are In; State Control Is Out*, Agriculture Information Bulletin 635 (October 1991); *Agricultural Outlook* (December 1991 through May 1992); *Farmline* (December 1991 and January-February 1992). See also Luis Tellez Kuenzler, "Mexican Agricultural Policy and the Nation's Modernization Process," in Colin Carter, Harold O. Carter, and Ray Coppock, eds., *North American Free Trade Agreement: Implications for California Agriculture* (Davis, Calif.: U.C. Agricultural Issues Center, July 1992).

Agriculture (USDA) describes how key commodities are concentrated in specific regions of Mexico:

- Cotton, oilseeds, sorghum, vegetables, wheat, and forage crops are produced on large, irrigated farms in the north.
- Two of the country's staple commodities--corn and dry edible beans--are produced on small, nonirrigated farms in Mexico's central states.
- Coffee, rice, sugarcane, and traditional plantation crops are produced in the south.
- Cattle operations are concentrated in Mexico's northern and Gulf states, but pork and poultry operations are located throughout the country.[3]

Many smallholders produce corn and dry edible beans, often under subsistence or near-subsistence conditions. Both are staple items in Mexican diets. Corn occupies more acreage than any other commodity in Mexico, accounting for more than one-half of the country's total cropland. Dry edible beans, sorghum, and wheat rank second, third, and fourth, respectively.[4] Mexico's corn and sorghum yields per acre are significantly lower than those in the United States.

Mexico's principal animal products are beef (and veal), pork, poultry (and eggs), and dairy goods.[5] Most of the beef cattle in Mexico are range fed, although feedlots are used in some northern states. Many of Mexico's swine, poultry, and egg-layer operations have adopted modern methods of production. In fact, about two-thirds of Mexico's swine inventory and about three-fourths of its poultry and egg-layer inventory are raised on farms that use such methods. Nearly all of the country's commercial pork, poultry meat, and eggs come from operations that use

3. Department of Agriculture, Economic Research Service, *Agricultural Outlook* (March 1992), p. 31.

4. If these commodities are ordered by metric tons of production, corn again ranks first, followed by wheat, sorghum, and dry edible beans. See Department of Agriculture, Economic Research Service, *Agriculture in a North American Free Trade Agreement*, pp. 18-56, for acreage and yield data.

5. Beef (and veal), pork, and poultry meat rank first, second, and third, respectively, ordered by metric tons of production. See Department of Agriculture, Economic Research Service, *Agriculture in a North American Free Trade Agreement*, pp. 60-86, for information about production.

confined-feeding systems. In Mexico's dairy industry, operations using confined systems account for only about 15 percent of the country's dairy herd but produce more than 50 percent of its milk.

Mexico's major horticultural crops for export include tomatoes, peppers, melons (including cantaloupes and watermelons), cauliflower and broccoli, onions, cucumbers, mangoes, table grapes, and squash.[6] Harvest and marketing periods in Mexico typically complement U.S. production, but some seasonal overlap occurs.[7] Winter harvests of Mexican tomatoes, peppers, and cucumbers overlap with winter harvests in Florida. In general, the peak harvest and marketing periods for cantaloupes, watermelons, and table grapes in Mexico and the United States are complementary, with some overlap in late spring and early summer. Mexico's winter and early spring harvests of broccoli and cauliflower overlap with harvests of both commodities in California, harvests of broccoli in Texas, and harvests of cauliflower in Arizona. Summer harvests of broccoli in Mexico overlap with those in California. The harvest and marketing period for Mexican onions--which is virtually year-round--overlaps with production throughout the United States. The marketing seasons for mangoes in Florida and Mexico are nearly the same. The harvest and marketing periods for Mexican and U.S. squash overlap, but the two countries produce different varieties.

Mexico is one of the world's largest producers of oranges, ranking fifth behind Brazil, the United States, China, and Spain.[8] Production in Mexico accounts for about 4.6 percent of all production in the world market. The harvest season in Mexico generally coincides with the harvest season in the United States, and the varieties of oranges produced in both countries are similar. However, the markets for oranges in Mexico and the United States are notably different. Domestic demand

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6. The list is ordered by the value of fresh, frozen, and prepared exports (excluding juices) to the United States in 1991 and is limited to commodities with exports valued at or above $50 million. Mexico's major horticultural crops ordered by the amount of acreage harvested are tomatoes, potatoes, peppers, onions, and cucumbers.

7. The discussion of seasonal overlap draws on a recent (March 1991) General Accounting Office study, *U.S.-Mexico Trade, Extent to Which Mexican Horticultural Exports Complement U.S. Production.*

8. For details, see Department of Agriculture, Economic Research Service, *Agriculture in the North American Free Trade Agreement*, pp. 125-126; Thomas H. Spreen, Ronald P. Muraro, and Gary F. Fairchild, "Analysis of the Impact of the North American Free Trade Agreement in the U.S. Citrus Industry," in American Farm Bureau Research Foundation, *North American Free Trade Agreement, Effects on Agriculture*, vol. 4, *Fruit and Vegetable Issues* (Park Ridge, Ill.: American Farm Bureau Research Foundation, 1991), pp. 477-550.

for fresh oranges accounts for about 80 percent of the Mexican orange crop, whereas about 70 percent to 80 percent of the U.S. crop is processed. Although Mexico is also among the world's largest producers of processed orange products, it accounts for only 2.3 percent of world production. (Brazil accounts for about half of world production, and the United States accounts for almost a third.)

In general, fruit and vegetable yields in Mexico are lower than those in the United States, and in some cases, Mexican products do not meet U.S. standards for grading and marketing. Some analysts note that inferior systems for postharvest handling and marketing place Mexican producers at a disadvantage relative to U.S. producers.[9] They also suggest that environmental conditions--such as the poor quality and inadequate supply of water in some regions--could inhibit Mexico's efforts to increase production.

In both absolute and relative terms, Mexico's agricultural sector stagnated during the 1980s but showed moderate signs of growth in 1990 and 1991. During the 1980-1991 period, the agricultural sector grew at an average rate of 0.5 percent each year--less than one-third the rate of growth of manufacturing in Mexico.[10] The agricultural sector contracted by 4.6 percent in 1989 but then expanded by 3.4 percent and 3.7 percent in 1990 and 1991, respectively.[11] These rates were still substantially less, however, than the rates of growth of the manufacturing sector.

Government Intervention

Recent changes in Mexico's policies toward agriculture reflect a major shift in the country's overall strategy for economic development (see Box 1). For several decades, the country adhered to an inward-looking,

9. Roberta Cook and others, "Implications of the North American Free Trade Agreement (NAFTA) for the U.S. Horticultural Sector," in American Farm Bureau Research Foundation, *North American Free Trade Agreement, Effects on Agriculture*, vol. 4, *Fruit and Vegetable Issues* (Park Ridge, Ill.: American Farm Bureau Research Foundation, 1991), pp. 458-460.

10. Growth is measured using constant price data. See World Bank, *Trends in Developing Countries* (Washington, D.C.: World Bank, September 1992), p. 360.

11. Growth is measured using constant price data. See World Bank, *Trends in Developing Countries*, p. 360; World Bank, *Trends in Developing Countries* (Washington, D.C.: World Bank, September 1991), p. 364. According to the U.S. Embassy in Mexico, the agricultural sector expanded by only 1.2 percent in 1991. See American Embassy, *Economic Trends Report* (Mexico City: American Embassy, February 1992), p. 50.

interventionist strategy, but in the middle-to-late 1980s, it adopted a new approach based on more market-oriented principles. By initiating an ongoing process of reform in the farm sector, Mexico extended that approach to agriculture; however, the effects of the former strategy on the structure and productivity of the farm sector may linger for many years. Because there are important links between the process of reform and NAFTA, the success or failure of one could affect the success or failure of the other.

Although government intervention is less prominent than it once was, it has played a critical role in shaping the Mexican farm sector and continues to affect some aspects of decisionmaking. In particular, supports for commodity prices, subsidies for producers and consumers, trade regulations, and restrictive land-tenure laws have influenced decisions about investment, production, marketing, and consumption for many years. Many of those programs have been dismantled, but some remain in place.

A recent analysis of NAFTA used producer subsidy equivalents (PSEs) to estimate the effects of intervention between 1982 and 1989.[12] (PSEs are defined as the payments required to compensate producers for the removal of government intervention.) The analysts estimated the overall effect of price supports, border controls, subsidies for inputs, and distortions in exchange rates. On balance, producers of dry edible beans, corn, pork, poultry, sorghum, soybeans, and wheat benefited from subsidies during the period, while producers of beef and milk were effectively taxed. For example, the average PSE for corn was estimated at 55 percent (as a percentage of the value of production), but the average PSE for beef was estimated at negative 15 percent.

Mexico's shift to a less interventionist strategy could promote investment and efficiency in the farm sector, but it could also lead the sector into a painful period of adjustment. If Mexico continues to eliminate supports for agriculture, unemployment and rural-to-urban migration could increase. NAFTA could lock in some of the changes made under Mexico's new development strategy and pave the way for additional reforms, but it could also contribute to transitional problems if losses from freer trade in agriculture precede gains from freer trade in

12. Thomas Grennes and others, *An Analysis of a United States-Canada-Mexico Free Trade Agreement*, Commissioned Paper 10 (St. Paul, Minn.: International Agricultural Trade Research Consortium, November 1991), pp. 9-13.

BOX 1.
MEXICAN AGRICULTURE: POLICY REFORMS AND REDUCTIONS IN BARRIERS TO TRADE

Until the middle-to-late 1980s, an inward-looking, protectionist policy guided decisions about production and investment in Mexican agriculture. The Compania Nacional de Subsistencias Populares (CONASUPO), Mexico's regulatory agency for agriculture, controlled imports of most major farm commodities through requirements for import licenses, tariffs, and direct purchases. Other key aspects of the policy included guaranteed prices for producers, subsidies for inputs (credit, insurance, fertilizer, seeds, irrigation, and feed), subsidies for marketing, subsidies for consumers, tariffs on exports, and exchange rate management. State-owned facilities for processing and marketing also played a significant role in the sector. In addition, constitutional provisions placed substantial restrictions on property rights. In recent years, however, the shift in the country's overall strategy for development has led to an emphasis on freer trade and more open markets in agriculture. As a result, CONASUPO has relinquished much of its control over sectoral activities.

In 1989, the Mexican government eliminated producer price guarantees for all major crops except corn and dry edible beans. (Corn and dry edible beans are particularly important commodities; both are dietary staples, and both are produced by large segments of the rural population. Mexico's corn program--a combination of guaranteed prices, restrictions on imports, and subsidies for consumers--has been described as the nation's "de facto rural employment and anti-poverty program.") For barley, oats, rice, sorghum, soybeans, and wheat, a system of agreement prices has been put into place. An agreement price is a price set for a product through negotiations among the Mexican government, producers, processors, and distributors. Typically, agreement prices are linked to prices in the world market. Under the agreement system, private traders must purchase the entire domestic crop at the agreement price before purchasing imports.

Consistent with an outward-looking policy, Mexico has also reduced the number of products subject to requirements for import licenses and the maximum tariff rate on imports. In 1985, 317 of the agricultural commodities entering

BOX 1.
CONTINUED

Mexico required import licenses. In 1989, the number stood at 78; by 1990, the list consisted of 57 items, including animal fats, dry edible beans, corn, milk and other dairy products, and wheat. (Some of those commodities, however, are among Mexico's most important agricultural imports from the United States.) In 1986, Mexico joined the General Agreement on Tariffs and Trade, and in 1988, it reduced the maximum tariff rate on goods entering the country to 20 percent.

Finally, a recent amendment to the Mexican constitution has eliminated many restrictions on land tenure. Before 1992, the constitution promised access to land for all landless peasants, and under its provisions, Mexican authorities expropriated and redistributed large tracts of privately held acreage. The *ejido* system--a communal form of property governance--emerged from that process. (An ejido is a parcel of land issued to a group of farmers, or *ejidatarios*, for use as a group or as individuals.) The ejido system granted the ejidatarios (and their heirs) the right to use the land, but it could not be sold, leased, or mortgaged. In addition, the ejidatarios could not hire labor, engage in sharecropping arrangements, or participate in joint ventures with individuals outside the ejido. In 1992, Mexico amended its constitution to prohibit expropriation and strengthen the property rights of the ejidatarios, but some restrictions on private ownership remain in place.

SOURCES: Roberta Cook and Kenneth Shwedel, "Mexico Opens Its Doors," *Western Grower and Shipper* (February 1992), pp. 12-19; Department of Agriculture, Economic Research Service, *Agriculture in a North American Free Trade Agreement* (July 1992); General Accounting Office, *U.S.-Mexico Trade, Impact of Liberalization in the Agricultural Sector* (March 1991); Thomas Grennes and others, *An Analysis of a United States-Canada-Mexico Free Trade Agreement*, Commissioned Paper 10 (St. Paul, Minn.: International Agricultural Trade Research Consortium, November 1991); International Trade Commission, *Potential Impact on the U.S. Economy and Selected Industries of the North American Free-Trade Agreement* (January 1993); Santiago Levy and Sweder van Wijnbergen, *Mexican Agriculture in the Free Trade Agreement: Transition Problems in Economic Reform*, Technical Paper 63 (Paris: OECD Development Center, May 1992).

other sectors. Moreover, the success of the new strategy could affect the success of NAFTA. The agreement could present new opportunities for growth in the production of some farm commodities, but Mexico's response to those opportunities would depend on its ability to make investments in modern technology and infrastructure.

U.S.-MEXICAN TRADE IN AGRICULTURE

Mexico is one of the U.S. farm sector's most important trading partners. In 1991, Mexico ranked fourth behind Japan, the European Community (EC), and Canada as an export market for U.S. agricultural products, and third behind the EC and Canada as a source of U.S. imports. In that year, the value of U.S. exports of agricultural products to Mexico was almost $3 billion, and the value of U.S. imports from Mexico was about $2.5 billion (see Table 1).

U.S.-Mexican trade in agriculture constitutes a significant and growing share of all U.S. trade in agriculture, rising from 6.2 percent in 1987 to 8.9 percent in 1991. For Mexico, trade with the United States accounts for the majority of all of Mexico's agricultural trade. In 1991, U.S. farm exports to Mexico amounted to almost 8 percent of all U.S. farm exports, and U.S. farm imports from Mexico constituted about 11 percent of all U.S. farm imports. In contrast, trade with the United States typically accounts for more than half of Mexico's farm imports and most of its farm exports.[13]

For the most part, U.S.-Mexican trade in agriculture is complementary (see Table 2). U.S. exports of farm products to Mexico are led by grains, oilseeds, and animal products. U.S. imports of farm products from Mexico are dominated by fruits and vegetables, live cattle, and coffee. As noted earlier, the principal growing seasons for many fruits and vegetables in Mexico differ from those for similar products in the United States and thus contribute to the complementarity of trade. Furthermore, Mexico's exports of tropical products such as coffee and bananas are noncompetitive--that is, similar or interchangeable items are

13. In 1990, for example, the United States supplied almost 70 percent of Mexico's agricultural imports and purchased roughly 90 percent of its agricultural exports. See Department of Agriculture, Foreign Agricultural Service, "Mexico: The Market for U.S. Food and Farm Products," *Market Profile* (July 1992).

TABLE 1. U.S. TRADE IN AGRICULTURE, 1987-1991
(By calendar year, in millions of dollars)

	1987	1988	1989	1990	1991
Exports to					
Mexico	1,202	2,235	2,724	2,553	2,998
Canada	1,808	2,019	2,221	4,197	4,554
World	28,709	37,080	39,909	39,363	39,191
Imports from					
Mexico	1,867	1,820	2,280	2,611	2,527
Canada	2,214	2,443	2,915	3,152	3,306
World	20,402	20,954	21,749	22,770	22,719
Balance of Trade with					
Mexico	-665	415	444	-58	471
Canada	-406	-424	-694	1,045	1,248
World	8,307	16,126	18,160	16,593	16,472

SOURCE: Congressional Budget Office based on Department of Agriculture, Economic Research Service, *Foreign Agricultural Trade of the United States*, Calendar Year Supplements (1987-1991).

not produced commercially in the United States.[14] In addition, U.S. exports of bulk commodities, such as grains and oilseeds, supplement Mexican harvests.

To some extent, however, current patterns of trade reflect policies toward agriculture in both countries--in the form of seasonal tariffs, quota restrictions, import licenses, other nontariff barriers, and some domestic commodity programs.[15] These patterns differ for the major commodity

14. According to the Department of Agriculture's Economic Research Service, "competitive agricultural imports consist of imports similar to agricultural commodities produced commercially in the U.S., together with all other agricultural imports interchangeable to any significant extent with such U.S. commodities. All other commodities are considered noncompetitive." See *Foreign Agricultural Trade of the United States*, Calendar Year Supplement (1991), p. 451.

15. Publications from the Department of Agriculture's Office of Economics (*Preliminary Analysis of the Effects of the North American Free Trade Agreement on U.S. Agricultural Commodities*, September 1992) and the International Trade Commission (*Potential Impact on the U.S. Economy and Selected Industries of the North American Free-Trade Agreement*, January 1993) describe U.S. and Mexican barriers to trade (tariff rates, requirements for import licenses, and quota restrictions).

TABLE 2. U.S.-MEXICAN TRADE IN AGRICULTURE, SELECTED COMMODITIES, 1987-1991 (By calendar year, in millions of dollars)

Commodity	1987	1988	1989	1990	1991
U.S. Exports to Mexico					
Animals and Animal Products					
Live cattle and calves	30	141	72	55	133
Beef and veal	7	40	78	80	185
Pork	5	30	56	37	68
Poultry meats	16	63	52	57	116
Dairy products	74	137	205	60	121
Fats, oils, and greases	82	101	94	87	97
Hides and skins	80	111	99	96	137
Other	62	205	175	190	267
Total	356	828	831	662	1,124
Grains and Oilseeds					
Grains and feeds					
Corn	275	367	435	401	148
Sorghum	56	135	270	328	371
Barley	0	0	22	27	7
Wheat	13	97	63	51	39
Rice	0	1	65	39	25
Feeds and fodders	11	34	48	57	80
Other	10	11	59	58	69
Subtotal	365	645	962	961	739
Oilseeds and oilseed products					
Soybean meal	11	101	72	58	66
Soybeans	214	367	273	203	344
Vegetable oils	38	64	55	38	60
Other	50	63	44	28	54
Subtotal	313	595	444	327	524
Total	678	1,240	1,406	1,288	1,263
Dry Edible Beans[a]	16	4	67	102	22
Fruits and Vegetables					
Fruits[b]	9	14	35	45	56
Vegetables[c]	30	33	56	88	101
Total	39	47	91	133	157
Sugar and Related Products	2	4	69	117	114
Other Commodities	111	112	260	251	318
Total U.S. Exports to Mexico	1,202	2,235	2,724	2,553	2,998

TABLE 2. CONTINUED

Commodity	1987	1988	1989	1990	1991
U.S. Imports from Mexico					
Noncompetitive Imports[d]					
Bananas and plantains	13	14	17	31	57
Coffee and related products	399	296	501	338	333
Cocoa and related products	27	31	16	37	14
Other	23	30	20	21	22
Total	462	371	554	427	426
Competitive Imports					
Animals and animal products					
Live cattle and calves	252	262	284	419	361
Other	24	20	29	1	1
Subtotal	276	282	313	420	362
Fruits and vegetables[b]					
Fruits	201	196	228	244	331
Vegetables	545	550	760	1,002	902
Subtotal	746	746	988	1,246	1,233
Orange juice	36	68	57	88	45
Sugar and related products	46	45	54	21	33
Beverages[e]	203	189	156	167	152
Other	98	118	158	242	276
Total	1,405	1,448	1,726	2,184	2,101
Total U.S. Imports from Mexico	1,867	1,820	2,280	2,611	2,527
Balance of Trade					
U.S.-Mexican	-665	415	444	-58	471

SOURCE: Congressional Budget Office based on Department of Agriculture, Economic Research Service, *Foreign Agricultural Trade of the United States,* Calendar Year Supplements (1987-1991).

NOTE: All figures are rounded to the nearest million dollars.

a. This commodity is referred to as dried beans in trade data from the Department of Agriculture.
b. Fresh, frozen, or prepared. Fruit juices are excluded.
c. Fresh, frozen, or prepared. Dry edible beans are excluded.
d. Noncompetitive imports are those that do not compete with commercial production in the United States.
e. Juices are excluded.

groups in U.S.-Mexican trade: grains, oilseeds, and dry edible beans; animals and animal products; fruits and vegetables; and other commodities (sugar, orange juice, peanuts, cotton, and tobacco).

Grains, Oilseeds, and Dry Edible Beans

Grains and oilseeds rank first in value among U.S. farm exports to Mexico. In 1991, they accounted for almost $1.3 billion, or more than 40 percent, of the agricultural products entering Mexico from the United States. Exports of sorghum and corn accounted for about 30 percent and 12 percent, respectively, of the grain and oilseed total. In 1991, Mexico imported about 1.3 million metric tons of U.S. corn, down from 3.8 million metric tons in 1989 and 3.5 million metric tons in 1990. During the 1987-1990 period, grains and oilseeds accounted for 50 percent to 55 percent of all U.S. agricultural exports to Mexico. In those years, corn alone made up 30 percent to 40 percent of the grain and oilseed total.

Mexican imports of dry edible beans are subject to substantial fluctuations because Mexico uses imports to meet shortfalls in its somewhat erratic domestic production. During the past decade, the value of U.S. exports of dry edible beans to Mexico has varied from a low of $144,000 in 1983 to a high of $102 million in 1990. (In 1983, the United States exported 229,166 metric tons of dry edible beans to the world market, with exports to Mexico accounting for only 292 metric tons of the total. In 1990, the United States exported 496,429 metric tons, with Mexico accounting for 153,327 metric tons.) For the most part, Mexico produces grains, oilseeds, and dry edible beans for domestic consumption. Its imports of these products are subject to a number of restrictions, such as requirements for import licenses and seasonal tariffs (see the later discussion on page 30).

Animals and Animal Products

The balance of trade in this category favors the United States, but Mexico exports significant quantities of animals and animal products to the United States. In 1991, animals and animal products accounted for $1.1 billion, or 37 percent, of the U.S. farm products entering Mexico, second in value only to grains and oilseeds. Overall, U.S. exports of animals and animal products to Mexico increased by about $462 million, or 70 percent, compared with the previous year. Specifically, U.S. exports of live cattle

and calves, beef and veal, poultry meat, and dairy products all more than doubled; U.S. exports of pork increased by 83 percent; and U.S. exports of hides and skins increased by 43 percent. (Although U.S. exports of dairy products to Mexico increased in 1991, they were below the levels of such exports in 1988 and 1989.) Mexico requires import licenses for poultry products (including fresh, chilled, and frozen poultry meats, and eggs) and for many dairy products (including milk powder and fresh cheese). In addition, Mexico assesses import tariffs of 10 percent on condensed, evaporated, and fluid milk and 20 percent on cheese, butter, yogurt, ice cream, pork (fresh, chilled, and frozen), hogs for slaughter, and edible beef offal. Recently, Mexico introduced temporary import tariffs of 15 percent to 25 percent on live cattle and some beef products to protect farmers from surges in imports.

In 1991, the value of Mexican exports of live cattle (primarily feeder cattle) and calves to the United States was $361 million--or about 14 percent of the value of all of Mexico's agricultural exports to the United States and nearly 100 percent of the value of its exports of animals and animal products. The ad valorem equivalent of the U.S. tariff, which is applied to most imports of live cattle from Mexico, is less than 2 percent.[16] In some instances, potential quota restrictions cover U.S. imports of meat products from Mexico under the U.S. Meat Import Act. (The U.S. Meat Import Act authorizes the use of quotas if the USDA expects calendar-year imports of certain products to be above a specific triggering amount. The act applies only to fresh, chilled, and frozen beef, veal, mutton, and goat meat. It does not apply to lamb, pork, poultry, or live animals.) U.S. imports of poultry are subject to tariffs with ad valorem equivalents of up to 4 percent for live animals and up to 15 percent for meat products. In recent years, however, the United States has restricted imports of Mexican poultry because of concerns about disease.

U.S. imports of dairy products are subject to Section 22 of the Agricultural Adjustment Act of 1933. Section 22 authorizes the President to restrict imports by imposing quotas or fees if imports interfere with U.S. programs of support for farm commodities or substantially reduce

16. The ad valorem measure is the percentage equivalent of a specific tariff; it is used to compare rates of duty on different products. (Specific tariffs are stated in units of currency per unit of product--for example, dollars per metric ton or pesos per liter.) If, for example, the United States assessed a specific tariff of 20 cents per kilogram on imports of a product valued at $2.00 per kilogram, the ad valorem equivalent would be 10 percent.

U.S. production of items processed from farm commodities. U.S. imports of dairy products from Mexico typically consist of specialty items in small quantities. In 1991, they were valued at about $1.5 million.

Fruits and Vegetables

The balance of trade in this category favors Mexico, but U.S. exports to Mexico are growing. Much of the recent increase in U.S. exports can be attributed to changes in Mexico's restrictions on imports. In 1989, U.S. exports of fruits and vegetables accounted for about $91 million, or 3.3 percent, of all U.S. agricultural exports to Mexico.[17] In 1991, however, exports of those same products stood at about $157 million, or 5.2 percent of the total. Within this category, U.S. exports of fresh apples, pears, and peaches--valued at $33.5 million in 1991--have almost doubled since 1989, and U.S. exports of fresh tomatoes--valued at $4.3 million--have increased more than eightfold.[18] Mexico applies import tariffs of 10 percent to most fresh vegetables and 20 percent to most fresh fruit, including apples, pears, peaches, oranges, and limes. Mexican imports of fresh table grapes are subject to requirements for import licenses.

Fruits and vegetables rank first in value among Mexican farm exports to the United States. In 1991, they accounted for about half of all such products entering the U.S. market. In that year, Mexico's exports of fruits and vegetables to the United States were valued at $331 million and $902 million, respectively. Mexican exports to the United States are led by tomatoes, peppers, melons (including cantaloupes and watermelons), cauliflower and broccoli, onions, cucumbers, mangoes, table grapes, and squash.[19] Tomatoes account for the largest share of such exports. In 1991, Mexico's exports of tomatoes were valued at $268 million and made up about 22 percent of its fruit and vegetable exports to the U.S. market. The United States imposes tariffs on imports of fruits and vegetables that vary by product and by season. For some products, such as cantaloupes (during certain seasons), dried garlic, and dried onion

17. The total figures for U.S. exports of fruits and vegetables include fresh, frozen, or prepared fruits and vegetables; they exclude juices and dry edible beans.

18. Department of Agriculture, Foreign Agricultural Service, *AgExporter* (September 1992), pp. 10-11.

19. The list is ordered by the value of fresh, frozen, and prepared exports (excluding juices) to the United States in 1991 and is limited to commodities with exports valued at or above $50 million.

powder, the ad valorem equivalents are as high as 35 percent. However, the average tariff rate for all fruits and vegetables is significantly lower.

The growing seasons for fruits and vegetables in Mexico tend to complement those in the United States, often creating windows of opportunity for U.S.-Mexican trade.[20] For example, U.S. producers export fresh cauliflower and broccoli, lettuce, melons, onions, potatoes, and tomatoes to Mexico during the summer and early fall, when heavy rains in some regions of Mexico curb domestic production. Similarly, seasonality creates openings for Mexican exports of fresh fruits and vegetables to the United States, particularly during the winter. But seasonality is not the only determinant of U.S.-Mexican trade: "true" seasonality may dictate patterns of trade for some horticultural products, but seasonal tariffs may dictate others. A recent report by the General Accounting Office concludes that "the existing seasonal tariff structure is instrumental in preserving the complementary nature of horticultural trade between Mexico and the United States."[21] Other reports suggest that this conclusion overstates the importance of seasonal restrictions.[22]

Other Commodities: Sugar, Orange Juice, Cotton, Peanuts, and Tobacco

Some two-way trade occurs in sugar, but U.S. imports from Mexico occur only under the U.S. tariff-rate quota (TRQ) system.[23] Under that system, a small amount of Mexican sugar enters the United States each year at a low-tier or zero tariff. (For further imports above that amount, a second-tier tariff of 16 cents per pound would apply.) The USDA specifies the amount of sugar--the quota allocation--that may enter at the low-tier tariff. For fiscal year 1992, the USDA granted Mexico a quota

20. See Cook and Others, "Implications of the North American Free Trade Agreement (NAFTA) for the U.S. Horticultural Sector," pp. 466-467.

21. The report refers to the structure of seasonal tariffs in the United States. See General Accounting Office, *U.S.-Mexico Trade, Extent to Which Mexican Horticultural Exports Complement U.S. Production*, p. 1.

22. See Cook and others, "Implications of the North American Free Trade Agreement (NAFTA) for the U.S. Horticultural Sector."

23. "A tariff rate quota (TRQ) is a form of tariff and not an import quota. Unlike an import quota, the quota in a TRQ does not set an absolute limit on the quantity of imports that may enter but only sets a limit on the quantity of imports that may enter at a given rate of duty. Most TRQ systems involve only one quota amount; within-quota imports enter at one rate of duty, and over-quota imports enter at a different, usually higher, rate" (International Trade Commission, *Potential Impact on the U.S. Economy and Selected Industries of the North American Free-Trade Agreement*, p. 21-1).

allocation of about 7,258 metric tons (raw value).[24] Although Mexico is a large net importer of sugar, it usually fills its quota allocation for exports to the United States. In fiscal year 1992, Mexico exported 7,044 metric tons of sugar to the United States under the TRQ system. For the current fiscal year, Mexico's quota allocation is also 7,258 metric tons.

In 1989, Mexico eliminated its requirements for import licenses for sugar and now maintains a system of variable levies on such imports. Under the new system, state agencies and private traders import sugar--typically refined sugar--from the United States, the European Community, Brazil, and other suppliers. Mexico's imports from the United States occur largely under the auspices of the U.S. Refined Sugar Reexport Program. Under that program, refiners in the United States can import raw sugar at the world price--without being subject to tariffs or quotas--if they certify that an equivalent amount of refined sugar will be reexported (at the world price for refined sugar).[25] Over the past four calendar years (1989-1992), Mexico's imports of refined sugar from the United States have averaged about 175,000 metric tons each year (with an average value of $69 million).[26]

U.S. exports of orange juice to Mexico make up a very small percentage of all U.S. exports of orange juice, but U.S. imports of orange juice from Mexico account for a significant share of all such imports. Mexico supplies approximately 15 percent of U.S. imports, ranking a distant second after Brazil. In 1991, the value of U.S. exports of orange juice to Mexico was about $437,000, a drop of almost 50 percent from the previous year but well above the levels of exports in other recent years. U.S. imports of orange juice from Mexico were valued at about $45 million, also a plunge from the previous year but a smaller drop from average levels in the 1987-1989 period. U.S. imports of single-strength and frozen-concentrate orange juice are subject to tariffs of 5.3 cents per liter and 9.25 cents per liter, respectively. Mexico maintains a 20 percent tariff on imports of most citrus products.

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24. Raw value means the equivalent of a quantity of sugar in the form of raw sugar. The measure is used for comparative purposes.

25. Department of Agriculture, Economic Research Service, *Sugar and Corn Sweetener: Changing Demand and Trade in Mexico, Canada, and the United States*, Agriculture Information Bulletin 655 (April 1993), p. 4.

26. Information provided by Fred Kessel, Peter Buzzanell, and Ron Lord of the Department of Agriculture and presented in an unpublished report, "Mexico's Sugar Industry--Current and Future Situation" (Washington, D.C., April 12, 1993), p. 4.

Historically, U.S.-Mexican trade in cotton, peanuts, and tobacco has been a relatively minor component of all U.S.-Mexican trade in farm products. In recent years, however, U.S. exports of raw cotton to Mexico have grown--from a five-year average of about 53,000 bales in marketing years 1985 through 1989 to about 202,000 bales in 1990 and an estimated 213,000 bales in 1991.[27] (The marketing year for cotton begins in August and ends in July.) U.S. exports of cotton to Mexico typically make up a very small share of all U.S. cotton exports but usually account for a very large share of Mexico's imports. Mexican exports of cotton to the United States face a quota restriction of about 18,507 bales annually under Section 22 of the Agricultural Adjustment Act, but Mexico has not filled its quota since the 1985 marketing year. In addition, the United States imposes a tariff of 4.4 cents per kilogram on imports of long-staple cotton. Mexico maintains a 10 percent tariff on nearly all imports of cotton.

U.S. imports of peanuts are also subject to a combination of quota restrictions under Section 22 and tariffs. The United States maintains a yearly quota of 2 million pounds of peanuts (in the shell) for imports from all countries (combined) and assesses a tariff on imports of 9.35 cents per kilogram. In 1991, Mexico exported about 150 metric tons of peanuts (and peanut products) to the United States--roughly 68,000 pounds--valued at about $29,000. In that same year, U.S. exports of peanuts (and peanut products) to Mexico were valued at about $9.6 million. Mexico does not restrict imports of peanuts or peanut products.

In 1991, the value of U.S. exports of unmanufactured tobacco to Mexico was about $197,000, representing a negligible fraction of all U.S. exports of such products. The value of U.S. imports of unmanufactured tobacco from Mexico was somewhat higher: about $15 million, or about 2 percent of the value of all U.S. imports of unmanufactured tobacco. Tariffs on U.S. imports of tobacco vary widely by the type of product. Mexico requires import licenses for tobacco and applies tariffs of 15 percent to 20 percent.

NAFTA'S PROVISIONS FOR AGRICULTURE

The provisions for market access in agriculture are different from those provisions for other sectors. They are written as two bilateral agree-

27. Department of Agriculture, Foreign Agricultural Service, *World Cotton Situation* (April 1992), pp. 34-38; and *World Cotton Situation* (October 1992), p. 24.

ments--one between the United States and Mexico, the other between Canada and Mexico. Each includes special safeguards for a limited number of import-sensitive products in each country. In addition, NAFTA contains special rules of origin for trade in some farm products, as well as a set of trilateral provisions that deal with domestic farm supports, agricultural export subsidies, and sanitary and phytosanitary requirements. Most of the provisions for agriculture are found in Chapter 7 of the agreement (see Box 2); however, other chapters contain provisions for land transportation, investment, and intellectual property rights that could also affect U.S.-Mexican trade in agriculture. In general, the Canada-U.S. Free Trade Agreement would still be the governing framework for trade in agriculture between the United States and Canada.

Provisions for Market Access: Mexico and the United States

The U.S.-Mexican agreement treats several topics that relate to market access, including customs duties and quantitative restrictions, special safeguards for import-sensitive commodities, and standards for grading and marketing.[28] In addition, it contains restrictions on duty drawback.

Customs Duties and Quantitative Restrictions. The proposed agreement would immediately eliminate all tariffs and other trade restrictions for a large number of agricultural products. For certain other products, however, it would establish periods of transition: 5 to 10 years for most of these products and 15 years for a small number of them. Based on trade in 1991, an estimated $1.6 billion in U.S. farm imports from Mexico and an estimated $1.5 billion in Mexican imports from the United States would be immediately free of tariffs.[29] (Of these imports, however, many products were either free of duty already or subject to low tariffs.) At the

28. The review of NAFTA provisions presented in this section draws information from several sources: NAFTA; the "Description of the North American Free Trade Agreement" prepared by the Governments of Canada, the United Mexican States, and the United States of America (August 12, 1992); the "Report of the Agricultural Policy Advisory Committee for Trade on the North American Free Trade Agreement," submitted to the President, the Congress, and the U.S. Trade Representative (September 1992); the "Reports of the Agricultural Technical Advisory Committees for Trade on the North American Free Trade Agreement," submitted to the President, the Congress, and the U.S. Trade Representative (September 1992); and two *Fact Sheets* from the Department of Agriculture, Office of Public Affairs--"The North American Free Trade Agreement: Import Protection" and "The North American Free Trade Agreement: Benefits for U.S. Agriculture" (August 21, 1992).

29. "Report of the Agricultural Policy Advisory Committee for Trade on the North American Free Trade Agreement," p. 4.

outset of the agreement, all nontariff barriers to U.S.-Mexican trade in agriculture would be converted to either tariff-rate quotas or ordinary tariffs. Mexico would also gain immediate exemption from possible quotas under the U.S. Meat Import Act.

NAFTA specifies two types of TRQs: one for commodities with existing nontariff barriers and another for commodities with existing tariffs. For commodities with nontariff barriers, specific quantities of imports--commonly referred to as within-quota amounts--would be admitted duty free, and "over-quota" tariffs would be applied to additional imports. Within-quota amounts for each commodity would be based on recent average levels of trade and in general would grow at 3 percent each year, compounded. Over-quota tariffs would be set to match current levels of nontariff protection and would be phased out over 10 to 15 years. In particular, this type of TRQ would apply to Mexican exports that are now subject to quota restrictions under Section 22 of the U.S. Agricultural Adjustment Act and to U.S. exports that are subject to requirements for import licenses in Mexico. For commodities with existing tariffs, TRQs would be used as special safeguards (see the discussion below).

For a small number of products in each country, the proposed agreement would gradually eliminate tariff and nontariff barriers to trade over a transition period of 15 years. For the United States, such products would be limited to asparagus, sprouting broccoli, cantaloupes and some other melons, cucumbers, dried garlic, dried onions, orange juice, peanuts, and sugar. For Mexico, they would be limited to dry edible beans, corn, milk powder, orange juice, and sugar. TRQs would replace nontariff barriers for U.S. imports of peanuts and sugar and Mexican imports of dry edible beans, corn, and milk powder.[30]

Special Safeguards. Each of NAFTA's bilateral agreements contains special safeguards for a limited number of import-sensitive products in each country to prevent rapid surges in imports of those products once NAFTA is put into place. The U.S.-Mexican special safeguards are set up as TRQs with 10-year periods of transition. The within-quota amounts for each product would increase by 3 percent each year, compounded, and

30. Tariff-rate quotas would replace tariff barriers for U.S. and Mexican imports of orange juice but would follow different rules from those established as special safeguards for other products. The TRQs for orange juice are described later (see page 39), along with the potential effect of NAFTA on trade in this commodity.

BOX 2.
CONTENTS OF CHAPTER 7 OF NAFTA: AGRICULTURE AND SANITARY AND PHYTOSANITARY MEASURES

Section A: Agriculture

Article 701:	Scope and Coverage
Article 702:	International Obligations
Article 703:	Market Access (Bilateral)
	Customs Duties, Quantitative Restrictions, and Agricultural Grading and Marketing Standards (See Annex 703.2)
	Special Safeguard Provisions (See Annex 703.3 and Schedule to Annex 302.2)
Article 704:	Domestic Support
Article 705:	Export Subsidies
Article 706:	Committee on Agricultural Trade
Article 707:	Advisory Committee on Private Commercial Disputes Regarding Agricultural Goods
Article 708:	Definitions
Annex 702.1:	Incorporation of Trade Provisions
Annex 702.3:	Intergovernmental Coffee Agreement
Annex 703.2:	Market Access
	Section A: Mexico and the United States[a]
	Customs Duties and Quantitative Restrictions
	Restriction on Same-Condition Substitution Duty Drawback
	Trade in Sugar and Syrup Goods
	Agricultural Grading and Marketing Standards
	Definitions
	Section B: Canada and Mexico[b]
	Customs Duties and Quantitative Restrictions
	Trade in Sugar
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	Definitions
	Section C: Definitions
Annex 703.3:	Special Safeguard Goods
	Section A: Canadian Special Safeguard Goods
	Section B: Mexico
	Section C: United States

BOX 2.
CONTINUED

Section B: Sanitary and Phytosanitary Measures

Article 709:	Scope and Coverage
Article 710:	Relation to Other Chapters
Article 711:	Reliance on Non-Governmental Entities
Article 712:	Basic Rights and Obligations
	Right to Take Sanitary and Phytosanitary Measures
	Right to Establish Level of Protection
	Scientific Principles
	Non-Discriminatory Treatment
	Unnecessary Obstacles
	Disguised Restrictions
Article 713:	International Standards and Standardizing Organizations
Article 714:	Equivalence
Article 715:	Risk Assessment and Appropriate Level of Protection
Article 716:	Adaptation to Regional Conditions
Article 717:	Control, Inspection, and Approval Procedures
Article 718:	Notification, Publication, and Provision of Information
Article 719:	Inquiry Points
Article 720:	Technical Cooperation
Article 721:	Limitations on the Provision of Information
Article 722:	Committee on Sanitary and Phytosanitary Measures
Article 723:	Technical Consultations
Article 724:	Definitions

a. This section applies only as between Mexico and the United States.
b. This section applies only as between Canada and Mexico.

would be subject to the applicable preferential rate of duty established under NAFTA. Over-quota imports would be subject to tariffs that are not to exceed the most-favored-nation rate (the lowest rate applied to imports from any third country) as of July 1, 1991, or the prevailing most-favored-nation rate, whichever is lower. The tariff rate for over-quota imports could be applied for the remainder of the season or the calendar year, depending on the product. Within-quota tariffs would be reduced gradually over 10 years; over-quota tariffs would be eliminated after 10 years but would not be reduced during the transition period. The United States would have special safeguards for seven horticultural items: chili peppers, eggplant, onions and shallots, squash, tomatoes in two seasonal categories, and watermelons. Mexico would have special safeguards for 17 items including fresh apples; some coffee, pork, and potato products; and swine for slaughter.

Grading and Marketing Standards. NAFTA's provisions for standards of grading and marketing in the agreement between the United States and Mexico would require like treatment of domestic and imported products that are destined for processing.

Restrictions on Same-Condition Substitution Duty Drawback. "Beginning on the date of entry into force of the agreement, neither Mexico nor the United States may refund the amount of customs duties paid, or waive or reduce the amount of customs duties owed, on any agricultural good imported into its territory that is substituted for an identical or similar good that is subsequently exported into the territory of the other Party."[31] For example, Mexico could not refund the customs duties paid on a farm product that it imports from a non-NAFTA country and substitutes (in the domestic market) for an identical Mexican product that it then exports to the United States. These restrictions on duty drawback could prevent an undue increase in bilateral trade.

Other Provisions

NAFTA also contains provisions that deal with domestic farm supports, subsidies for agricultural exports, rules of origin, and sanitary and phytosanitary measures. In addition, the agreement establishes a Committee on Agricultural Trade and an Advisory Committee on Private

31. NAFTA, Annex 703.2, Section A.

Commercial Disputes. Some further provisions, such as those for land transportation, investment, and rights to intellectual property could also affect U.S.-Mexican trade in agriculture.

- In general, the agreement would not affect the policies of the NAFTA signatories on domestic farm supports. Each party would retain its "rights and obligations" under the GATT but "should endeavor to work toward" measures for domestic support that do not distort trade or affect production.[32]

- Under NAFTA, parties would affirm that "it is inappropriate for a Party to provide an export subsidy for an agricultural good exported to the territory of another Party where there are no other subsidized imports of that good into the territory of that other Party." NAFTA would not affect the rights of the signatories to apply countervailing duties to subsidized imports from any source.[33]

- In general, the agreement would require that bulk commodities be of 100 percent NAFTA origin. Furthermore, the rules of origin established in Chapter 4 of NAFTA would apply to trade in processed agricultural products as well. However, the agreement would establish special rules of origin for some products (see Box 3).

- Each party to the agreement would be allowed to "adopt, maintain or apply any sanitary and phytosanitary measure necessary for the protection of human, animal or plant life or health in its territory, including a measure more stringent than an international standard, guideline or recommendation." The measure must be based, however, on scientific principles and a risk assessment and can be applied only to the extent necessary to achieve such protection. Furthermore, no party to the agreement may apply a measure that would "arbitrarily or unjustifiably discriminate between its goods and like goods of another party, or between goods of another party and like goods of any other country, where identical or similar condi-

32. NAFTA, Article 704.

33. NAFTA, Article 705.

BOX 3.
SPECIAL RULES OF ORIGIN
UNDER NAFTA FOR TRADE IN AGRICULTURE

Rules of origin are a key element of the agreement because they determine whether goods traded among the United States, Canada, and Mexico qualify for preferential treatment under NAFTA. The International Trade Commission summarizes the rules contained in Chapter 4 of the agreement: in general, "imports from non-NAFTA countries must be processed significantly, or substantial value must be added, in North America before the goods into which they are incorporated can qualify for NAFTA benefit." For the most part, bulk commodities must be of 100 percent NAFTA origin, and processed goods must conform to the rules in Chapter 4. However, special rules of origin would apply to some items:

- For dairy products, no non-NAFTA milk or milk products may be used to make milk, cream, cheese, yogurt, ice cream, or milk-based drinks.
- For citrus products, all single-strength juices must be made from 100 percent NAFTA fresh citrus fruit. Reconstituting concentrated juices or fortifying juices does not confer origin. There is no *de minimis* allowance for citrus products. (Under a *de minimis* allowance, or rule, a certain percentage of the value of a good--typically 7 percent--may derive from nonqualifying materials without losing eligibility for preferential treatment.)
- For coffee, roasting, decaffeinating, grinding, or packaging does not confer origin. The rule of origin for coffee is a "bean forward" rule. Coffee beans (93 percent or more) must be grown in NAFTA territory to qualify for preference under the agreement.
- For cocoa, 100 percent non-NAFTA cocoa beans, paste, butter, and unsweetened powder may be used to make bulk chocolate and chocolate candy for retail sale. For sweetened cocoa powder, 65 percent of the cocoa and 65 percent of the sugar must be of NAFTA origin.
- For cigarettes and cigars, the *de minimis* rule is no more than 9 percent of the value of each shipment. For all other agricultural and industrial products, the general *de minimis* provision of 7 percent applies.
- For trade in peanut products with Mexico, only peanuts harvested in Mexico may be used to make peanut products for export with preferential treatment under NAFTA. For trade with Canada, the rule confers origin on peanut butter made from non-NAFTA peanuts.
- For crude vegetable oils, refining does not confer origin--with the exception of certain industrial fatty acids and acid oils. Making margarine and hydrogenated oils from imported crude oil does not confer origin. The *de minimis* provision applies only to a few oils, including tropical oils, hydrogenated oils, and margarine.
- For sugar, refined sugar or molasses made from imported raw sugar does not originate. Refining does not confer origin. Sugar confectionery that is made with imported sugar qualifies for NAFTA preference.

SOURCES: International Trade Commission, *Potential Impact on the U.S. Economy and Selected Industries of the North American Free Trade Agreement* (January 1993), p. 3-2; information provided by the Department of Agriculture, Foreign Agricultural Service.

tions prevail." In addition, the measure must not act as a disguised restriction on trade.[34]

- o NAFTA would establish a trilateral Committee on Agricultural Trade to monitor and promote cooperation in implementing and administering the section on agricultural trade.

- o In turn, the Committee on Agricultural Trade would establish an Advisory Committee on Private Commercial Disputes to provide recommendations for developing systems in each country to resolve such disputes promptly and effectively.

NAFTA's provisions for land transportation, investment, and intellectual property rights could also have an impact on U.S.-Mexican trade in agriculture.[35] Under the agreement, U.S. trucking firms would gain access to Mexican markets, and if that access promoted improvements in land transportation in Mexico, U.S. trade with Mexico could expand more rapidly than is now possible. A lack of adequate transportation in Mexico is commonly cited as a major obstacle to U.S.-Mexican trade, particularly in cases involving highly perishable commodities. (Refrigerated vehicles are absent in many areas.) With regard to investment, NAFTA would enable U.S. firms to establish new agricultural enterprises, acquire existing businesses, and receive the same treatment, with limited exceptions, as domestic companies. In addition, provisions in the agreement would protect U.S. investors from expropriation and allow them to repatriate all of their profits and capital in hard currency. The agreement also contains provisions that prohibit the Mexican government from imposing requirements for exports on U.S. investors and that exempt them from requirements to "buy Mexican." These measures could encourage U.S. investment in Mexico, leading to the modernization of Mexican production and processing facilities and expansion of trade. Finally, NAFTA's provisions for intellectual property rights would establish rules of protection for most inventions and could encourage research aimed at the specific needs of the Mexican market.

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34. NAFTA, Article 712.

35. See Department of Agriculture, Office of Public Affairs, *Fact Sheets* (August 21, 1992): "The North American Free Trade Agreement: Agricultural Transportation"; "The North American Free Trade Agreement: Investments in Agriculture"; and "The North American Free Trade Agreement: Intellectual Property Protection."

NAFTA'S POTENTIAL EFFECT ON U.S.-MEXICAN TRADE IN AGRICULTURE

Overall, NAFTA could have a significant impact on agriculture in Mexico but would probably affect agriculture in the United States only modestly. Several recent studies--some completed in advance of NAFTA's drafting and some completed after its release--address these potential effects.[36] Most studies, in considering each country's farm sector as a whole, indicate that U.S. producers would gain from the agreement but that those in Mexico would lose. The effect of the agreement would vary for specific commodities within each sector: U.S. producers of grains, oilseeds, and some animal products would benefit, and U.S. producers of some horticultural products could face additional competition.

Some of the studies examine the potential effect of the agreement on labor markets and migration.[37] They suggest that NAFTA could promote rural-to-urban migration in Mexico as well as migration from Mexico to the United States; however, the size of the effect would depend largely on changes in Mexico's domestic policies for agriculture. U.S. competition, particularly in the production of corn, could contribute to a loss of jobs in Mexico and might encourage migration. Ultimately, though, if NAFTA promotes overall economic growth in Mexico and new employment opportunities arise in sectors other than agriculture, it could reduce migratory pressures on the U.S. border. Transition periods of up to 15 years for phasing in some provisions could provide enough time for both countries to adjust.

Although the emphasis of this analysis is on the effects of provisions for market access, there are a number of other factors that could have an impact on trade in agriculture under NAFTA. For example, conditions in the macroeconomic environment could affect competition in some

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36. For a review of several studies completed in advance of NAFTA, see Tim Josling, "NAFTA and Agriculture: A Review of the Economic Impacts," in Nora Lustig, Barry B. Bosworth, and Robert Z. Lawrence, eds., *Assessing the Impact: North American Free Trade* (Washington, D.C.: Brookings Institution, 1992), pp. 144-175. For evaluations completed after the release of the agreement, see Department of Agriculture, Office of Economics, *Preliminary Analysis of the Effects of the North American Free Trade Agreement on U.S. Agricultural Commodities*; International Trade Commission, *Potential Impact on the U.S. Economy and Selected Industries of the North American Free-Trade Agreement*.

37. See Sherman Robinson and others, "Agricultural Policies and Migration in a U.S.-Mexico Free Trade Area: A Computable General Equilibrium Analysis," Working Paper 617 (University of California at Berkeley, Department of Agricultural and Resource Economics, December 1991); Santiago Levy and Sweder van Wijnbergen, *Mexican Agriculture in the Free Trade Agreement: Transition Problems in Economic Reform*, Technical Paper 63 (Paris: OECD Development Center, May 1992).

markets.[38] In particular, adjustments in the value of the Mexican peso could affect U.S.-Mexican trade. If the peso continues to appreciate, Mexican products could become less competitive in the United States. A recent analysis notes that the costs of production in Mexico and the United States are similar for a number of horticultural commodities; the analysts define "similar" as costs within a range of 10 percent.[39] For those commodities in which Mexico has only a slight advantage, a moderate appreciation of the peso could more than offset the difference in costs.

Several additional factors could affect whether the agreement brings the hoped-for benefits of freer trade to Mexico and the United States. In the short to medium term, U.S. standards for grading and marketing agricultural products, U.S. sanitary and phytosanitary requirements for agricultural products, and inadequate facilities for transportation and storage in Mexico could limit the growth that is expected in U.S.-Mexican trade.[40] Those constraints could be reduced or eliminated--through increases in investment in Mexico and improvements in technology--in the medium to long term. Also to be considered over the long term are the effects of environmental conditions, such as the scarcity of water in some regions of Mexico, which could inhibit expansion.

To evaluate the potential effects of NAFTA for specific commodities, attention must be given to negotiated tariff rates, tariff-rate quotas, special safeguards, and transition periods. This section describes the effects of NAFTA on trade in four major categories of products: grains, oilseeds, and dry edible beans; animals and animal products; fruits and vegetables; and other commodities (sugar, orange juice, peanuts, cotton, and tobacco).

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38. For a more detailed discussion of the macroeconomic environment, see the forthcoming CBO study, *A Budgetary and Economic Analysis of the North American Free Trade Agreement.*

39. Sherman Robinson, Raul Hinojosa-Ojeda, and Roberta Cook, "The Macroeconomic Implications of a North American Free Trade Agreement," in Colin Carter, Harold O. Carter, and Ray Coppock, eds., *North American Free Trade Agreement: Implications for California Agriculture* (Davis, Calif.: U.C. Agricultural Issues Center, July 1992), pp. 50-51.

40. General Accounting Office, *U.S.-Mexico Trade, Impact of Liberalization in the Agricultural Sector* (March 1991), pp. 34-35 and 40.

Grains, Oilseeds, and Dry Edible Beans

NAFTA specifies transition periods of 15 years for phasing out Mexican restrictions on imports of dry edible beans and corn, and 10 years for barley and malt, rice, soybeans, and wheat--but U.S. exports to Mexico could increase before those periods expire.[41] The agreement would provide immediate duty-free status for Mexican imports of sorghum from the United States, and TRQs would be applied to Mexican imports of barley and malt, dry edible beans, and corn (see Table 3). U.S. imports of dry edible beans and most grains and oilseeds from Mexico would also be given immediate duty-free status under the agreement; however, 10-year periods of transition are specified for U.S. import restrictions on rice and wheat.

U.S. exports of grains and oilseeds are expected to grow under NAFTA, but the extent and composition of that growth would depend, in part, on unilateral changes in Mexico's domestic policies toward agriculture. Although significant changes have already occurred throughout the sector, some forms of domestic intervention--such as guaranteed prices, agreement prices, and restrictions on the use of corn--still influence decisions about the production and use of grains and oilseeds in Mexico.[42] And because those forms of domestic intervention affect decisions about production and consumption, they also affect demand for imports. Although NAFTA would not require the elimination of domestic programs for agriculture, it would undermine efforts to support domestic prices and control the use of corn by removing barriers to trade and placing downward pressure on prices in Mexico.

Mexican producers of grains and oilseeds could face competition from U.S. producers within 10 to 15 years. The case of corn provides a good example. NAFTA stipulates an initial TRQ of 2.5 million metric tons, growing at an annual rate of 3 percent, with an over-quota tariff of

41. The U.S.-Mexican agreement for market access sets up a tariff-rate quota for a combination of barley and malt (malted barley). NAFTA uses a conversion factor (700 kilograms of malt for each metric ton of barley) to define equivalent units of the two products.

42. Mexican law prohibits the use of corn as feed for livestock. Despite the prohibition, some such use generally occurs. Total use of corn in Mexico breaks down as 75 percent for human consumption, 12 percent for animal feed, 6 percent for industrial purposes, and 1 percent for seed (the balance is lost). See Department of Agriculture, Economic Research Service, *Agriculture in a North American Free Trade Agreement*, pp. 18-19.

TABLE 3. MEXICAN POLICIES FOR GRAINS, OILSEEDS, AND DRY EDIBLE BEANS AND MEXICAN IMPORTS FROM THE UNITED STATES

	Corn	Sorghum	Wheat	Rice	Barley	Soybeans	Dry Edible Beans
Mexican Import Policies							
Current policies	License	Seasonal tariff: 15 percent (May 16-Dec. 15)	License and ordinary tariff: 10 percent	Ordinary tariff: 10 percent to 20 percent	License and ordinary tariff: 5 percent	Seasonal tariff: 15 percent (Aug. 1-Jan. 31)	License
NAFTA's immediate provisions for imports from the United States	Tariff-rate quota:[a] 2.5 mmts duty free[b]	Duty free	Ordinary tariff: 15 percent base[c]	Ordinary tariff: 10 percent to 20 percent base	Tariff-rate quota: 120,000 mts duty free (barley and malt)[d]	Seasonal tariff: 10 percent base (Oct. 1-Dec. 31)	Tariff-rate quota: 50,000 mts duty free[b]
	Over-quota tariff: $206 per mt or 215 percent base				Over-quota tariff: $155 per mt or 128 percent base[e]		Over-quota tariff: $480 per mt or 139 percent base
NAFTA's phaseouts (Design)	15 years (UR)	Immediate	10 years (Straight)	10 years (Straight)	10 years (UR)	10 years (Straight)	15 years (UR)
Mexican Domestic Pricing Policies	Guarantee	Agreement[f]	Agreement	Agreement	Agreement	Agreement	Guarantee
Mexican Imports from the United States (By calendar year, in metric tons)							
1989	3,844,294	2,268,379	392,358	196,610	136,440[g]	978,861	90,119
1990	3,486,369	2,899,982	357,944	119,520	161,739[g]	842,002	153,327
1991	1,312,540	3,300,891	312,464	90,298	52,913[g]	1,481,433	38,000

SOURCE: Congressional Budget Office based on the October 1992 draft of NAFTA and Department of Agriculture, Economic Research Service, *Foreign Agricultural Trade of the United States*, Calendar Year Supplements (1989-1991).

NOTE: NAFTA = North American Free Trade Agreement; mt(s) = metric ton(s); mmts = million metric tons; UR = 24 percent reduction in the first six years, then linear schedule of reduction; straight = linear schedule of reduction.

a. A tariff-rate quota entails the application of a higher tariff rate to imported goods after a specific quantity of the product has entered the country at a lower, or zero, tariff rate. The "specific quantity" is commonly referred to as the within-quota amount, and any imports above that amount are commonly referred to as over quota.

b. The duty-free amount would increase 3 percent each year, compounded.

c. The base tariff is the initial tariff specified by NAFTA. For example, the tariff on wheat would be reduced to zero from a base of 15 percent.

d. The duty-free amount is for barley and malt and is measured in barley-equivalent units. (The conversion factor is 700 kilograms of malt for each metric ton of barley.) The duty-free amount would increase 5 percent each year, compounded.

e. The over-quota tariff base of $155 per metric ton refers to barley-equivalent units; the ad valorem rate of 128 percent refers to the value of barley.

f. An agreement price is a price set through negotiations among the Mexican government, producers, processors, and distributors, and typically is linked to world prices. Private traders must purchase the entire domestic harvest at the agreement price before purchasing imports.

g. The export figures are for barley only.

$206 per metric ton but not less than 215 percent (ad valorem).[43] The over-quota tariff would be reduced by 24 percent in even stages over the first six years of the agreement and then would follow a linear reduction schedule for the remaining nine years. In 1991, the Mexican government set a guaranteed price of 530,000 pesos per metric ton (approximately $4.64 per bushel) for yellow corn.[44] The average price of corn in the United States was $2.37 per bushel. If NAFTA had been put into place in that year and the tariff base of 215 percent applied, the tariff-affected price of U.S. corn would have been $7.47 per bushel. By the sixth year of the agreement, the over-quota tariff rate would have been reduced by 24 percent, and the tariff-affected price would have been $6.24 per bushel. By the 10th year of the agreement, the price would have been $4.52 per bushel, just below the guaranteed price in Mexico. Although the comparison does not account for differences in marketing costs, inflation, and terms of credit or for adjustments in exchange rates in Mexico, it indicates roughly the potential effect of the agreement on U.S. competitiveness in the Mexican market.

Although U.S. grain and oilseed producers would gain from NAFTA, the benefits would be modest. U.S. exports to Mexico are currently a small fraction of total U.S. production for most commodities and are likely to remain a small fraction of the posttransition market. For example, in fiscal year 1992, Mexico produced about 14.5 million metric tons of corn and imported another 1.1 million metric tons. In that same year, the United States produced about 190 million metric tons of corn. If U.S. exports had replaced the entire Mexican harvest and all of Mexico's imports, total U.S. exports to Mexico would still have accounted for only about 8 percent of U.S. production.[45] Furthermore, if incomes in Mexico rise under NAFTA, corn could lose its prominence as a staple commodity, and the demand for corn in Mexico could decline. If, however, rising incomes cause an increase in the demand for animal-

43. The initial within-quota amount is larger than the level of U.S. exports in 1991 but considerably smaller than the levels of exports in 1989 and 1990. If the effects of Mexico's current restrictions on imports and the effects of the terms of NAFTA are compared, it is unclear whether U.S. producers benefit from growth in the within-quota amount during the transition. (Growing at 3 percent each year over 15 years, that amount would not reach the 1989 level of U.S. exports.)

44. Department of Agriculture, Economic Research Service, *Agriculture in a North American Free Trade Agreement*, p. 20.

45. At present, however, U.S. exports of corn would not provide a perfect substitute for Mexican harvests because Mexico and the United States typically produce different varieties of corn: Mexico produces white corn and the United States produces yellow.

based proteins, U.S. producers of grains and oilseeds could benefit from additional exports of feed for livestock. (Similarly, if U.S. exports of animal products to Mexico increase, producers of grains and oilseeds could benefit from additional demand for feed in the United States.) An increase in the demand for U.S grains and oilseeds could lead to an increase in the price received by U.S. farmers or an increase in the number of acres eligible for deficiency payments.[46] In either case, U.S. farmers could benefit from an increase in income.

Animals and Animal Products

The proposed agreement would provide 10- and 15-year periods of transition for U.S. and Mexican import restrictions on some products in this category of trade. Ten-year TRQs would replace Mexican requirements for import licenses for U.S. poultry products, and 15-year TRQs would replace such requirements for U.S. milk powder. Special safeguards would apply to Mexican imports of swine for slaughter and some pork products. Quota restrictions on U.S. imports of Mexican dairy products, established by Section 22 of the Agricultural Adjustment Act, would be replaced with 10-year TRQs. The agreement would immediately eliminate U.S. tariffs on imports of Mexican cattle, other livestock, and meat products, and would exempt Mexico from potential quota restrictions under the U.S. Meat Import Act.

NAFTA could give U.S. exports of animal products a competitive advantage in Mexico relative to other nations. In addition, incomes in Mexico may rise as a result of NAFTA and could generate an increase in demand for animal-based proteins. Although some of that demand could be met internally, particularly if the price of grain used for feed in Mexico drops, U.S. producers would still benefit from the increase. Moreover, the agreement could promote two-way trade in some markets. For example, some analysts predict an increase in Mexican exports of feeder cattle to the United States and an increase in U.S. exports of beef products to Mexico.[47]

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46. If demand for corn increases, the Secretary of Agriculture may reduce the requirements for acreage reduction, thereby increasing the number of acres eligible for deficiency payments. For a detailed discussion of deficiency payments, see Congressional Budget Office, *The Outlook for Farm Commodity Program Spending, Fiscal Years 1992-1997* (June 1992).

47. Department of Agriculture, Economic Research Service, *Agriculture in a North American Free Trade Agreement*, pp. 64-65.

On balance, U.S. producers of dairy products are expected to benefit from the agreement. NAFTA would eliminate Section 22 restrictions on U.S. imports of Mexican dairy products, but conditions in the Mexican dairy sector--as well as the 10-year transition specified by the agreement--would prevent a large, near-term increase in such imports. At present, Mexico is a net importer of dairy products. (It imports large quantities from the European Community, New Zealand, the United States, and Canada.) Facing a shortage of productive capacity, the Mexican dairy sector lacks the technology and infrastructure to expand rapidly. Access to the U.S. market, as well as changes in domestic policies, could encourage some investment and expansion in the sector over the long term.

Fruits and Vegetables

In general, fruits and vegetables with growing seasons that overlap in the United States and Mexico have been granted lengthy phaseouts of restrictions on trade, some in the form of special safeguards. For example, 10-year periods would be used to phase out existing tariffs--some seasonal and some year-round--on U.S. imports of avocados, cauliflower and headed broccoli, celery, some citrus, lettuce, some melons, mushrooms, and frozen strawberries. Phaseouts of 15 years would apply to existing U.S. tariffs on asparagus, sprouting broccoli, cantaloupes and some other melons, cucumbers, dried garlic, and dried onions. Special safeguards would apply to U.S. imports of seven additional items (see Table 4).

Ten-year periods of transition would apply to existing tariffs--some seasonal and some year-round--on a similar list of Mexican imports from the United States. The list includes asparagus, avocados, cauliflower and broccoli, celery, cucumbers, dried garlic, grapefruit, lettuce, nectarines, dried and fresh onions, peaches, tomatoes, and watermelon and some other melons. TRQs with 10-year phaseouts would replace Mexican requirements for import licenses on fresh potatoes, and ordinary tariffs with 10-year phaseouts would replace Mexican requirements for import licenses for table grapes. Special safeguards would apply to Mexican imports of five additional items (see Table 4).

Mexico's exports of fruits and vegetables to the United States could grow under NAFTA, and U.S. exports to Mexico of some fresh

TABLE 4. SAFEGUARDS UNDER NAFTA FOR U.S. AND MEXICAN IMPORTS OF FRUITS AND VEGETABLES: TARIFF-RATE QUOTAS WITH 10-YEAR PERIODS OF TRANSITION

Commodity[a]	Current Tariff	1990 Tariff Ad Valorem[b] (Percent)	Initial Quota (Metric tons)	Imports (Metric tons) 1989	1990	1991
U.S. Safeguards for Imports from Mexico						
Tomatoes (March 1 to May 14)	4.6 cents per kg	5.5	165,500	102,204	98,086	136,629
Tomatoes (November 15 to end of February)	3.3 cents per kg	2.5	172,300	153,779	172,930	135,264
Onions and Shallots (January 1 to April 30)	3.9 cents per kg	8.3	130,700	91,532	96,366	124,415
Eggplant (April 1 to June 30)	3.3 cents per kg	6.3	3,700	2,867	2,261	3,463
Chili Peppers (October 1 to July 31)	5.5 cents per kg	4.7	29,900	25,589	30,014	27,147
Squash (October 1 to June 30)	2.4 cents per kg	4.2	120,800	74,933	73,845	75,896
Watermelon (May 1 to September 30)	20 percent ad valorem	20.0	54,400	51,717	38,564	36,585
Mexican Safeguards for Imports from the United States						
Frozen Potatoes	15 percent ad valorem	15.0	1,800	140	349	810
Dried Potatoes	20 percent ad valorem	20.0	200	5	18	51
Fresh Apples	20 percent ad valorem	20.0	55,000	8,218	12,027	21,625
Frozen French Fries	20 percent ad valorem	20.0	3,100	832	2,075	3,509
Other Preserved Potatoes	20 percent ad valorem	20.0	5,400	501	5,102	999

SOURCE: Congressional Budget Office based on Department of Agriculture, Foreign Agricultural Service, *Horticultural Products Review* (September 1992), pp. 22-23; NAFTA; and the October 1992 draft of NAFTA.

NOTES: The Department of Agriculture cites the Department of Commerce, Bureau of the Census, as its source for trade information and states that some import figures are approximations. The "initial quota" is the within-quota amount for the first year of the agreement, which would grow at a rate of 3 percent each year, compounded. The initial tariff rate on the within-quota amount would equal the prevailing rate at the time the agreement took effect, but it would be reduced by a linear schedule over the 10-year period of transition. The tariff rate on over-quota imports would equal the prevailing tariff rate at the time the agreement took effect or the current most-favored-nation rate, whichever is lower. The tariff rate on over-quota imports would not be phased out but would be eliminated at the end of the 10-year transition.

NAFTA = North American Free Trade Agreement; kg = kilogram.

a. Dates in parentheses indicate the period during which the safeguard is in effect. Mexican safeguards are in effect year-round.

b. Specific tariffs (cents per kilogram) were converted to ad valorem equivalents based on 1990 trade values.

commodities--for example, apples, pears, peaches, and high-quality citrus--could also increase. As seasonal tariffs on U.S. imports of Mexican products are eliminated, some U.S. producers--particularly those who produce fresh winter crops that have overlapping seasons in Mexico--could face additional competition. For example, with NAFTA, Mexican exports of cucumbers, peppers, squash, and tomatoes are expected to grow. If incomes in Mexico rise, however, U.S. producers might feel less pressure from Mexican competitors, as producers in Mexico attempt to satisfy the needs of the domestic market. (Rising incomes in Mexico would probably lead to an increase in demand for horticultural products.) In addition, U.S. exports could benefit from new demand in Mexico during periods of relatively low Mexican output.

Other Commodities: Sugar, Orange Juice, Cotton, Peanuts, and Tobacco

NAFTA specifies 15-year periods of transition for U.S. and Mexican restrictions on imports of sugar and orange juice, and 10-year periods of transition for cotton and tobacco. The agreement also specifies a 15-year period of transition for U.S. restrictions on imports of peanuts. (Peanuts are not subject to import restrictions in Mexico.) For sugar, the United States would phase out its TRQ on imports from Mexico, and Mexico would eventually eliminate its variable levy on imports from the United States. For orange juice, current tariffs on imports in both countries would be replaced with TRQs. For cotton and peanuts, the United States would replace Section 22 quota restrictions with TRQs, and for cotton, Mexico would gradually eliminate any current tariffs. For tobacco, the United States would phase out its existing tariffs, and Mexico would replace its requirements for import licenses with ordinary tariffs.

The provisions for trade in sugar are linked to Mexico's export status (see Table 5). If Mexico becomes a net surplus producer of sugar for two consecutive years during the 15-year period of transition, it would gain additional access to the U.S. market.[48] If Mexico remains a net deficit producer during the 15-year transition, it would retain its first-tier allocation (under the current TRQ system) until the end of the transition. Regardless of its export status, Mexico would establish border protec-

48. Net production surplus means the quantity by which a party's domestic production of sugar exceeds its total consumption of sugar during a marketing year; a net surplus producer is a party with a net production surplus. See NAFTA, Annex 703.2, Definitions.

TABLE 5. NAFTA'S PROVISIONS FOR U.S. IMPORTS OF SUGAR AND SYRUP GOODS FROM MEXICO

Marketing Year[a]	Within-Quota Amount[b] (Metric tons) If Net Deficit Producer	Within-Quota Amount[b] (Metric tons) If Net Surplus Producer	Over-Quota Tariff (Cents per pound)
Base	7,258[c]	25,000 maximum[d]	16.0
1	7,258	25,000 maximum	15.6
2	7,258	25,000 maximum	15.2
3	7,258	25,000 maximum	14.8
4	7,258	25,000 maximum	14.4
5	7,258	25,000 maximum	14.0
6	7,258	25,000 maximum	13.6
7	7,258	150,000[e]	12.1
8	7,258	165,000	10.6
9	7,258	181,500	9.1
10	7,258	199,650	7.6
11	7,258	219,615	6.0
12	7,258	241,577	4.5
13	7,258	265,734	3.0
14	7,258	292,308	1.5
15	n.a.	n.a.	0

SOURCE: Congressional Budget Office based on NAFTA, Annex 703.2, paragraphs 13 through 22.

NOTE: NAFTA = North American Free Trade Agreement; n.a. = not applicable.

a. October 1 through September 30. If the agreement enters into force on January 1, 1994, the first marketing year of the agreement would begin October 1, 1994.

b. Based on projections as of July 1. "Net surplus producer" refers to sugar and syrup goods (it does not refer to nonsugar sweeteners). Within-quota amounts enter the U.S. market duty free; sugar entering the U.S. market under the Refined Sugar Reexport Program does not count toward the within-quota amount. (See Annex 703.2, paragraphs 13 and 22, of NAFTA.)

c. From Annex 703.2, paragraph 14, of NAFTA: "Each Party shall accord duty-free treatment to a quantity of sugar and syrup goods that are qualifying goods not less than the greatest of (a) 7,258 metric tons raw value; (b) the quota allocated by the United States for a non-Party within the category designated *other specified countries and areas. . .* ;" or (c) the other party's projected net production surplus for that marketing year subject to the limits outlined below in notes (d) and (e).

d. From Annex 703.2, paragraph 15, of NAFTA: "The duty-free quantity of sugar and syrup goods under paragraph 14(c) shall not exceed the following ceilings: (a) for the first six marketing years, 25,000 metric tons, raw value; (b) for the seventh marketing year, 150,000 metric tons, raw value; and (c) for each of the eighth through 14th marketing years, 110 percent of the previous marketing year's ceiling."

e. From Annex 703.2, paragraph 16, of NAFTA: Beginning with the seventh marketing year, the ceiling described in paragraph 15 shall not apply where "the Parties have determined the exporting party to be a net surplus producer (a) for any two consecutive marketing years beginning after the date of entry into force of the agreement; (b) for the previous and current marketing years; or (c) in the current marketing year and projected it to be a net surplus producer in the next marketing year, unless subsequently the Parties determine that, contrary to the projection, the exporting Party was not a net surplus producer for that year."

tion equal to that of the United States for imports of sugar from the rest of the world by the end of the sixth year of the transition. Exports of refined sugar to Mexico under the U.S. Refined Sugar Reexport Program would be exempt from NAFTA provisions restricting drawback and duty-deferral programs. The reexport program would remain in place under NAFTA, but refined sugar shipped to Mexico under the program would be subject to most-favored-nation duties rather than receiving preferential status.

In the short term, Mexico would probably retain its position as a net importer of sugar. In the medium to long term, however, Mexico could become a net surplus producer. The promise of access to the U.S. market could encourage investment and expansion. Under the U.S. program of support for sugar, the price of raw sugar in the United States is well above the world price and somewhat higher than the Mexican price. In 1990, the average price of raw sugar in the United States was 23.26 cents per pound, and the average world price was 12.55 cents per pound. In 1991, the average U.S. price was 21.57 cents, and the average world price was 9.04 cents. The government of Mexico announces a target price each month, which is adjusted to stay at about 18.7 cents a pound.[49]

A rapid increase in the production of sugar in Mexico is unlikely, but changes in industrial practices could affect the country's import status. For example, Mexico could shift to alternative sweeteners--such as high-fructose corn syrup--in its domestic soft-drink industry. (Under NAFTA, Mexico would reduce its 15 percent tariff on imports of fructose syrup over 10 years.) Based on trade and production data for the marketing year beginning November 1990, shifting to the high-fructose sweetener could free up as much as 1.3 million metric tons of sugar for other uses and would account for nearly all of Mexico's imports.[50] Such a shift, however, could take several years. Mexico would need new transportation and storage facilities to accommodate the sweetener, as well as new processing equipment in the soft-drink industry.

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49. Department of Agriculture, Economic Research Service, *Sugar and Sweetener Situation and Outlook* (September 1992), pp. 8 and 14.

50. The soft-drink industry accounts for about 56 percent of industrial consumption of sugar in Mexico and about 30 percent of total consumption. See Department of Agriculture, Economic Research Service, *Agriculture in a North American Free Trade Agreement*, pp. 149-150; Department of Agriculture, Economic Research Service, *Sugar and Sweetener Situation and Outlook*, p. 8.

The provisions for frozen-concentrate and single-strength orange juice are somewhat different from provisions for other agricultural products (see Table 6). The United States and Mexico would replace existing tariffs with TRQs of identical structure but different magnitudes. The orange juice provisions resemble special safeguards with some notable exceptions. The provisions offer 15-year rather than 10-year periods of transition and do not increase the within-quota allocations during those periods. In addition, the provisions call for gradually reducing over-quota tariffs but at slower rates than the tariffs for other horticultural products. Total Mexican exports of orange juice to the United States could increase under NAFTA, but the net effect on U.S. imports would be smaller than the change in Mexican shipments because some of those shipments would displace imports from Brazil and other sources.

Two-way trade in cotton and tobacco could expand under NAFTA, but large changes in trade are not expected. For tobacco, Mexican imports of high-quality U.S. leaf could increase, as could U.S. imports of filler-quality Mexican leaf. Little change is expected in U.S.-Mexican peanut trade, but some concerns have been expressed that U.S. producers will market "excess" peanuts in Mexico (those that are not eligible for price supports in the United States) and that the peanuts will return to the United States as processed products. If the rules of origin for peanut products under NAFTA are strictly enforced, they would prevent such "circular" shipments (see Box 3 on page 26).

HOW NAFTA MIGHT AFFECT THE COST OF THE U.S. FARM PROGRAM AND RECEIPTS FROM TARIFFS

The proposed agreement could affect the cost of supports for the U.S. farm sector. In particular, it could influence the cost of domestic programs for grains, oilseeds, and dairy products, as well as the cost of programs to promote U.S. exports. Moreover, the agreement would eventually eliminate collections of revenue from import tariffs on Mexican agricultural products.

TABLE 6. NAFTA'S PROVISIONS FOR U.S. AND MEXICAN IMPORTS OF ORANGE JUICE: TARIFF-RATE QUOTAS WITH 15-YEAR PERIODS OF TRANSITION

Commodity	Current Tariff	1990 Tariff Ad Valorem[a] (Percent)	Within-Quota Tariff[b] (Cents per liter)	Over-Quota Tariff Base[c] (Cents per liter)	Initial Within-Quota Amount (1,000 liters)	Calendar-Year Imports (1,000 liters) 1989	1990	1991
Frozen-Concentrate Orange Juice[d]								
U.S. imports from Mexico	9.25 cents per liter	25.7	4.625	9.25	151,416	136,829	169,659	176,026
Mexican imports from United States	20 percent	20.0	4.625	9.25	735	15	1,660	379
Single-Strength Orange Juice								
U.S. imports from Mexico	5.3 cents per liter	17.7	2.650	5.30	15,380	28,371	53,090	10,815
Mexican imports from United States	20 percent	20.0	2.650	5.30	130	0	122	339

SOURCE: Congressional Budget Office based on NAFTA, the October 1992 draft of NAFTA, and information from the Department of Agriculture's Foreign Agricultural Service.

NOTE: NAFTA = North American Free Trade Agreement.

a. Specific tariffs (cents per liter) were converted to ad valorem equivalents based on 1990 trade values.

b. A tariff-rate quota entails the application of a higher tariff rate to imported goods after a specific quantity of the product has entered the country at a lower tariff rate. The "specific quantity" is commonly referred to as the within-quota amount, and any imports above that amount are commonly referred to as over quota. The within-quota tariffs would be in effect (and constant) until the within-quota tariffs and over-quota tariffs intersect; they would then be reduced linearly. The over-quota tariff on frozen-concentrate orange juice is the current most-favored-nation rate reduced by 15 percent over six years (to 7.8625 cents per liter), held constant for four years, and reduced linearly for the remaining five years. The over-quota tariff on single-strength orange juice is the current most-favored-nation rate reduced linearly over the 15-year period of transition.

c. The base tariff is the initial tariff specified by NAFTA. For example, the over-quota tariff on frozen-concentrate orange juice would be reduced to zero from a base of 9.25 cents per liter.

d. Measured in liters of single-strength equivalent.

NAFTA would probably have a small net effect on the cost of U.S. commodity programs. If exports of grains, oilseeds, and related products rise, the cost of U.S. programs of support for those commodities could fall, but any such drop would depend on the Secretary of Agriculture's use of discretionary policy mechanisms--in particular, whether the Secretary reduces the acreage reduction requirements for those commodities. The cost of the U.S. dairy program could also fall if an increase in exports to Mexico causes a decrease in purchases of surplus dairy products by the U.S. government or a reduction in the surplus stocks that it holds.

In addition to the commodity programs, NAFTA could affect the cost of programs to promote exports of U.S. farm products--for example, the GSM-102 export guarantee program. This program, which offers guarantees backed by the U.S. government on loans with repayment periods of up to three years, currently plays a significant role in U.S.-Mexican trade. Mexico is one of the single largest participants in the GSM-102 program. In fiscal year 1991, Mexico ranked second behind the former Soviet Union as a recipient of GSM-102 guarantees, accounting for $1.1 billion, or almost one-fourth of the total program. (The "total program" and all allocations refer to approved guarantees.) Of the $1.1 billion, $164 million, $278 million, and $338 million were allocated to corn, coarse grains other than corn (barley, sorghum, and oats), and oilseeds, respectively. Those allocations accounted for more than one-third of the value of Mexico's purchases of U.S. farm products in fiscal year 1991 and almost 80 percent of its purchases of U.S. corn.

In the short to medium term, Mexico could use the GSM-102 program to finance a significant portion of its agricultural purchases from U.S. suppliers. If Mexican imports of U.S. grains, oilseeds, dry edible beans, and animal products increase under NAFTA, Mexico's participation in the GSM program could also increase. The net cost of the increase could equal the subsidy associated with the additional guarantees, but it would depend on adjustments made elsewhere in the GSM program. (The "subsidy" is the expected cost of the guarantee. It is estimated by using the net present value of expected defaults and eventual repayments.) The effect on the budget would depend on changes in both the size of the total program and the distribution of allocations by country. If no change occurs in the size of the overall GSM program--if allocations to other countries are reduced--the net effect on the budget could be zero, depending on the relative riskiness of the remaining portfolio. But even if the size of the program remains constant, its cost could change if the additional guarantees extended to Mexico

carry a different rate of subsidy from the rate for the reduced guarantees. The expected cost of extending export credit guarantees to Mexico is small: for each increase of $100 million in GSM-102 allocations (with no decreases or reallocations elsewhere), the cost of the program would increase by less than $5 million.

After 15 years, the United States would no longer collect revenue from tariffs on imports of Mexican farm products. During the NAFTA transition period, tariffs would be collected for some products at reduced rates, but the reduction in tariff rates could generate an offsetting increase in the demand for imports. As a rough approximation, current collections of tariffs could be used to estimate the long-term effect of the agreement on tariff revenue. In 1991, Mexico's exports of agricultural products to the United States accounted for about $140 million in tariff revenue--approximately 15 percent of all tariffs collected on Mexican exports to the United States.[51] Tariffs collected on Mexico's exports of vegetables, nuts, and fruits amounted to about $95 million of the total, accounting for about 68 percent of the tariffs collected on all of Mexico's exports of agricultural products. Tariffs collected on Mexico's exports of prepared or preserved food amounted to about $36 million, accounting for another 26 percent of the total.

51. The total amount ($140 million) does not include tariffs collected on imports of leather goods and fur ($10 million) or wood products ($2 million).

APPENDIX: CANADIAN TRADE IN THE NAFTA REGION--CURRENT PATTERNS OF TRADE AND PROVISIONS FOR MARKET ACCESS IN AGRICULTURE

NAFTA is not expected to have a major impact on Canadian-U.S. or Canadian-Mexican trade in agriculture.[52] Trade with Canada is important for the U.S. farm sector, but the rules of the 1989 Canada-U.S. Free Trade Agreement for market access in agriculture would still apply to trade between Canada and the United States. New rules would apply to Canadian-Mexican trade in agriculture, but any increase in trade between the two countries would proceed from a very small base.

Canadian-U.S. Trade

In 1991, Canada ranked third behind Japan and the European Community as an export market for U.S. agricultural products; it ranked second behind the European Community as a source of U.S. imports. In that year, the value of U.S. exports of agricultural products to Canada was $4.6 billion, and the value of U.S. imports of farm products from Canada was $3.0 billion. The United States typically accounts for about one-third of Canada's farm exports and about 55 percent to 60 percent of its imports. In comparison, Canadian exports constituted about 15 percent of all U.S. farm imports in 1991, and Canadian imports constituted about 12 percent of U.S. farm exports.

Canadian-Mexican Trade

Compared with Canadian-U.S. and Mexican-U.S. trade flows, Canadian-Mexican trade flows are very small. In 1990, the United States accounted for nearly two-thirds of Canada's agricultural imports and more than one-third of its exports, while Mexico accounted for only 2 percent of Canada's agricultural imports and 1 percent of its exports. Conversely, Canadian exports constituted only 2 percent of the farm products entering Mexico. Canadian exports of farm products to Mexico are led by live

52. Following are the sources used to prepare this appendix: Department of Agriculture, Economic Research Service, *Foreign Agricultural Trade of the United States*, Calendar Year Supplement (1991); Department of Agriculture, Economic Research Service, *A North American Free Trade Area for Agriculture: The Role of Canada and the U.S.-Canada Agreement*, Agriculture Information Bulletin 644 (March 1992); Department of Agriculture, Foreign Agricultural Service, "Canada: The Market for U.S. Food and Farm Products," *Market Profile* (July 1992).

animals, meat, dairy products, and cereals, but the value of those exports totaled only $106 million (Canadian) in 1990 and $59 million (Canadian) in 1991. Mexican exports to Canada are led by vegetables and fruit (fresh and processed), coffee, and beverages; they amounted to only $169 million (Canadian) in 1990 and $143 million (Canadian) in 1991. (See Table A-1 for further details.)

NAFTA'S Provisions for Canadian-Mexican Trade

The proposed agreement would eliminate all tariff and nontariff barriers to agricultural trade between Canada and Mexico, with the exception of those in the dairy, poultry, egg, and sugar sectors. Canada would immediately exempt Mexico from restrictions on imports of wheat and barley, beef and veal, and margarine. Both nations would eliminate immediately, or phase out within five years, tariffs on many fruit and vegetable products. Canadian imports of some horticultural products would be subject to special safeguards with 10-year periods of transition. For all products other than dairy goods, poultry, and eggs, Mexico would replace license requirements for Canadian imports with TRQs or ordinary tariffs.

TABLE A-1. CANADIAN TRADE WITH MEXICO, SELECTED COMMODITIES, 1990 AND 1991 (In thousands of Canadian dollars)

Commodity Group	Canadian Imports		Canadian Exports	
	1990	1991	1990	1991
Live Animals	98	61	8,844	12,516
Meat and Edible Meat Offal	0	0	14,784	5,809
Dairy Products	0	0	72,846	13,689
Live Trees and Other Plants, Bulbs, Roots, and Cut Flowers	1,508	1,380	0	7
Edible Vegetables	78,624	48,561	7,045	1,357
Edible Fruits and Nuts	46,831	56,822	25	0
Cereals	0	0	9,080	26,781
Oilseeds and Miscellaneous Grains, Seeds, and Fruits	2,118	1,488	820	0
Preparations of Vegetables, Fruits, and Nuts	8,185	4,062	52	585
Beverages, Spirits, and Vinegar	14,021	15,505	520	552
Cotton	3,512	790	56	154
Coffee, Tea, Maté, and Spices	21,830	17,732	0	0

SOURCES: Congressional Budget Office based on Statistics Canada, *Exports by Country*, Catalogue 65-003 Quarterly (January-December 1991), pp. 232-235; Statistics Canada, *Imports by Country*, Catalogue 65-006 Quarterly (January-December 1991), pp. 166-169.