# NAFTA Trade in Fruits and Vegetables 

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NAFTA eliminated many tariffs and quantitative restrictions between the United States and Mexico on January 1, 1994, and provided for the progressive elimination of remaining tariffs and other trade barriers between the two countries over a 15 -year period. It built on the Canada-U.S. Free Trade Agreement, which took effect in 1989 and was fully implemented by 1998. For horticultural crops, all NAFTA tariffs were to fall to zero in 2003 (or earlier), except for a few products.

All three members of NAFTA-the United States, Canada, and Mexicoare very important producers, consumers, and traders of horticultural products. The trade liberalization under NAFTA, combined with other factors such as income growth and exchange rate movements, has spurred horticultural trade among the NAFTA partners over the last several years. This chapter reviews production, consumption, and import and export trends for each of the countries in the partnership. Fruit and vegetable policies and regulations, and areas where there have been trade frictions among the NAFTA members, are also discussed.

## NAFTA Region Exports

The United States, Mexico, and Canada accounted for 19 percent of the value of world fruit and vegetable exports during 1999-2001, with the three countries ranking $1^{\text {st }}, 7^{\text {th }}$, and $10^{\text {th }}$, respectively, as exporters. In all three countries, there has been an expansion in all facets of fruit and vegetable exports in fresh and processed fruits and vegetables, fruit and vegetable juices, tree nuts, and pulses (figs. 5.1 and 5.2). In addition, intra-NAFTA exports have exceeded the growth in external or extra-NAFTA trade in the 1990s.

## U.S. Fruit and Vegetable Production

The United States is a major producer and exporter of many fruits and vegetables. In 2001, U.S. fruit and vegetable production, concentrated mostly in the Southern and Pacific Coast States, totaled $\$ 25.7$ billion. California and Florida dominate the U.S. vegetable industry, and California has by far the greatest number of farms and acres planted to fruits.

California and Florida produce the largest quantity of fresh market vegetables in the United States, leading the way in broccoli, carrots, celery, cucumbers, lettuce, onions, bell peppers, sweet corn, and tomatoes. Potatoes and onions are produced in many States, led by Idaho, Washington, Oregon, and Colorado.

[^0]Figure 5.1
NAFTA fruit and vegetable exports by country


Source: USDA, FAS Global Agricultural Trade System.

Figure 5.2
NAFTA fruit and vegetable exports by commodity


Source: USDA, FAS Global Agricultural Trade System.
According to the 1997 Census of Agriculture that included horticultural acreage, California accounted for 37 percent of fruit and tree nut farms and 50 percent of U.S. acreage in 1997. Other major producers included Florida (with 9 percent of both farms and acreage), Washington (with 6 percent of the acreage), and Georgia (with 3 percent of the acreage).

Grapes accounted for the greatest number of acres planted to fruits in 2001, followed closely by oranges and apples (fig. 5.3).


Source: National Agricultural Statistics Service, USDA.

Grapes are grown mostly in California and Washington, which together accounted for 95 percent of production in 2001. California supplies most of the oranges for the fresh market, while Florida provides most of them for the processing industry. Over the years, apple production has expanded in both Washington and California, while acreage and number of farms declined throughout the East and Midwest. Occasionally, harsh weather in the major Southern producing States such as Georgia and South Carolina has forced growers to reduce acreage in fruit crops like peaches.

California also dominates three of the six most important tree nut crops of the United States-almonds, walnuts, and pistachios-accounting for virtually all commercial production. Pecan production is greatest in Georgia, Texas, and New Mexico, which together account for 72 percent of U.S. production. Macadamia nuts are grown only in Hawaii. Hazelnut production is concentrated in Oregon. These six tree nuts accounted for a combined $\$ 1.3$ billion of production and $\$ 975$ million in exports in 2001.

## Mexican Fruit and Vegetable Production

Mexico grows fruits and vegetables on about 4 percent of its agricultural land. Climate variation from tropical to temperate allows growers to produce a wide spectrum of fruits and almost any vegetable. About 20 percent of Mexico's fruit and vegetable production is exported, while the vast majority goes to the large and growing domestic market.

Production practices in Mexico for the export and the domestic markets are quite different. The export industries grow products to meet foreign-market consumer demand, retail preferences, and governmental restrictions (limits on chemical and pesticide residues, programs to deal with quarantine pests, etc.). The technology is quite similar to that used in the United States, as U.S. firms are active in the Mexican export industries. Producers for Mexico's domestic market tend to be more labor-intensive than in the United States and employ more traditional methods of cultivation and harvesting.

Figure 5.4 shows the Mexican states. Mexico's vegetable production is concentrated in Sinaloa, Zacatecas, Guanajuato, Chihuahua, and Mexico, with most export vegetables coming from Sinaloa. The winter fresh vegetable industry in Sinaloa is old and established. Its major products are tomatoes, cucumbers, bell peppers, eggplant, and squash. Sinaloa's fruit and vegetable crops are irrigated; there are dams in the mountains and no serious problems with water availability.

Noncitrus fruit production centers around the more temperate states of Michoacan, Chihuahua, Durango, Zacatecas, and Sonora, while citrus production is located in Veracruz, Colima, Michoacan, San Luis Potosi, Oaxaca, and Sonora.

Sonora is the most important state for export fruits, mainly grapes and melons. Unlike Sinoloa, it does have water problems because it relies on seriously overdrawn aquifers for irrigation.

## Canadian Fruit and Vegetable Production

Although Canada's climate is not as conducive to growing fruits and vegetables as that of its NAFTA trading partners, its production and exports have been substantially rising. In 2000, Canada's fruit and vegetable exports totaled nearly $\$ 2$ billion, just shy of a 50 -percent increase from 4 years earlier. Technology has played a key role-greenhouses have been built in both eastern and western Canada, and tomato, cucumber, and pepper production and exports have expanded rapidly.

Figure 5.4
States of Mexico


The most important vegetable crops in Canada in terms of value are potatoes and tomatoes. Potato production has a long history and is an important part of the economy in several provinces, particularly Prince Edward Island and New Brunswick. Total output is valued at about $\$ 700$ million per year. Potatoes are consumed and exported in large volumes, both fresh and as frozen french fries.

Tomatoes in Canada are now raised largely in modern greenhouses. In recent years, the greenhouse tomato industry has grown by more than 20 percent per year, with up to 50 percent of production destined for the United States. Almost all the exports originate from the provinces of Ontario and British Columbia, the heartland of Canadian greenhouse production.

Canada's most important fruit product, and most important fruit for export, is apples. Exports of fresh apples were valued at $\$ 54$ million in 2000. Other fruit products are blueberries, raspberries, strawberries, cranberries, grapes, peaches, and cherries.

## Policy, Regulation, and Marketing of Fruits and Vegetables in the NAFTA Countries

Fruit and vegetable crops in the United States, Mexico, and Canada do not benefit from any direct government payments such as price support programs. However, there are a variety of marketing and research programs that support the fruit and vegetable industries.

Canadian support for fruit and vegetable production is limited to generic programs such as scientific efforts to develop new technology. The U.S. and Mexican governments provide similar services, but also aid the fruit and vegetable industries through subsidized and preferential water allocations that have helped stabilize production levels. For some crops the United States also provides Federal crop insurance, and disaster assistance when warranted.

All three countries have marketing structures that help insure the maintenance of grades and standards. In Canada, potato growers participate in local organizations such as the Prince Edward Island Potato Board and the Saskatchewan Seed Potato Growers Association. Apple growers benefit from marketing and promotion agencies such as the Apple Growers of Ontario and the British Columbia Fruit Growers' Association.

In the United States, the USDA's Agricultural Marketing Service (USDA, AMS) administers marketing orders that enable growers to regulate market activities. The U.S. Agricultural Marketing Agreement Act of 1937 (AMAA) authorized marketing orders for certain fruit, vegetable, nut, and specialty crops. Marketing orders typically have grade, size, quality, and maturity requirements and include mechanisms that help balance supply and price over time. U.S. regulations also require that imports of certain fruits and vegetables comply with regulations that apply to U.S.-grown produce when domestic regulations are in effect.

In Mexico, an increasing proportion of fruit and vegetable production is marketed to foreign and domestic nontraditional markets that expect producers to closely monitor product characteristics like grade, size, and
quality. But most Mexican production relies on more "traditional" marketing methods, which leave the details of product selection and presentation to the wholesale market participants (Tropp et al., 2002). Wholesalers close to major population centers receive fresh produce from numerous small producers and their brokers and reassemble it for retail delivery. Relationships between producers and wholesalers, and between wholesalers and retailers, are typically informal and personal, with prices and terms of transactions set on a case-by-case basis.

In general, the traditional distribution system suffers from a lack of adequate cold storage warehouses and refrigerated delivery vehicles, as well as from poorly insulated and ineffective packing materials. These deficiencies can result in the loss or degradation of a substantial portion of the product. Tarrats Gavidia (1997) estimates that in the current marketing system as much as 50 to 60 percent of perishable agricultural products in Mexico are lost between harvest and the time the product reaches the final consumer.

## NAFTA Fresh Fruit Exports

During 1999-2001, the United States (at $\$ 2.0$ billion per year) and Mexico (at $\$ 696$ million per year) ranked $2^{\text {nd }}$ and $10^{\text {th }}$, respectively, in world fresh fruit exports. Canada's fresh fruit exports, 83 percent of which went to the United States, averaged $\$ 90$ million per year over the same period.

About 42 percent of fresh fruit exported by the United States is destined for its NAFTA partners, mainly Canada. Nearly 40 percent of exports go to East Asia (Japan, South Korea, Taiwan, China, and Hong Kong). Other markets of significance include the EU and countries in the Association of SouthEast Asian Nations (ASEAN), ${ }^{1}$ accounting for 9 and 6 percent, respectively, of U.S. fresh fruit exports.

Canada is the leading destination for U.S. fresh fruit, accounting for 31 percent of total U.S. fruit export value during 1999-2001. Grapes, melons, strawberries, oranges, and apples made up 63 percent of these exports. Japan, the second-largest market for U.S. fresh fruit exports, accounts for half of U.S. fresh fruit exports to the East Asia region. East Asia surpassed NAFTA as the leading market for U.S. fresh fruit exports from1994-97, before the Asian financial crisis took its toll. During 1999-2001, five fruits-oranges, grapefruit, cherries, grapes, and apples-accounted for nearly three-fourths of U.S. fresh fruit exports to the region. More than onethird of U.S. fruit exports to the EU consisted of grapefruit, while the leading U.S. fruit export to the tropical region of ASEAN were grapes and apples. Fresh fruit exports to Mexico, which received a 10-percent share of total U.S. fruit exports, were concentrated on apples, pears, and grapes, which together accounted for more than 80 percent of U.S. fruit exports to that country.

Mexico's fresh fruit exports expanded during the 1990s, increasing from $\$ 392$ million per year in 1991-93 to $\$ 696$ million per year in 1999-2001. Mexico's major fresh fruit exports include melons, mangoes, grapes, avocados, strawberries, limes, and bananas.
${ }^{1}$ ASEAN here includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

## NAFTA Fresh Vegetable Exports

During 1999-2001, the United States (at $\$ 1.2$ billion per year), Mexico (at $\$ 1.9$ billion per year), and Canada (at $\$ 446$ million per year) all ranked among the top 10 countries in the world in fresh vegetable exports. During this period, more than 90 percent of fresh vegetables exported by the NAFTA countries represented intra-NAFTA trade: 65 percent to the United States, 23 percent to Canada, and 2 percent to Mexico. The only major extra-NAFTA exports were shipments to the East Asia region (6 percent), mainly by the United States.
U.S. fresh vegetable exports to East Asia grew markedly before the mid1990s. Since then, however, growth has stalled. During 1999-2001, U.S. vegetable exports to East Asia were $\$ 197$ million per year, up from about $\$ 90$ million in 1991. Most U.S. fresh vegetable exports are destined for its NAFTA partners, with Canada taking 70 percent and Mexico 4 percent. U.S. fresh vegetable exports to Canada and Mexico include almost every type of vegetable sold in stores and used in the preparation of processed food products. U.S. vegetables exported to East Asia, however, are concentrated on a relatively small number of products, including broccoli, onions, asparagus, cauliflower, and celery.

Mexico and Canada send most of their fresh vegetable exports to the United States, which purchased 98 percent of Mexican exports and 94 percent of Canadian exports during 1999-2001. Mexico exports a wide variety of products, led by tomatoes, peppers, asparagus, onions, and cucumbers. In particular, Mexico is an important source of winter vegetables for the United States. Canada's principal fresh vegetable exports are tomatoes, potatoes, and peppers.

## NAFTA Exports of Processed Fruits and Vegetables and Fruit and Vegetable Juice

The United States, Canada, and Mexico expanded exports of processed fruit and vegetables from less than $\$ 2.0$ billion in 1991 to more than $\$ 3.4$ billion in 2001 as all three countries recorded impressive gains. Nearly half of the processed fruit and vegetable trade was intra-NAFTA in 1999-2001, with more than 26 percent of the exports going to East Asia, nearly 11 percent to the EU, and 14 percent to other destinations.

All three NAFTA countries also had notable gains in exports of fruit and vegetable juices, from less than $\$ 520$ million in 1991-93 to more than $\$ 850$ million in 1999-2001. During 1999-2001, about 47 percent of fruit and vegetable juice exports were intra-NAFTA and more than 20 percent went to East Asia, nearly 18 percent to the EU, about 5 percent to Central and South America, and 9 percent to other destinations.

## NAFTA Fruit and Vegetable Consumption

## United States

In the United States, per capita consumption of fruits, nuts, vegetables, and melons totaled about 723 pounds in 2001. Vegetables and melons accounted for about 441 pounds and fruits and nuts for approximately 282 pounds.

Fresh-market vegetables and melons accounted for about half of all vegetable and melon use, with the other half going to the processing sector. The leading vegetables in terms of per capita consumption, all uses, and fresh consumption are shown in table 5.1.

Popular fruits are oranges ( 31 percent of per capita fruit consumption, all uses), apples ( 15 percent), grapes ( 16 percent), and bananas ( 9 percent). More fruit is consumed in the form of juice ( 43 percent) than as fresh fruit ( 35 percent), but growth in per capita consumption was stronger for fresh fruit.

## Canada

In Canada, per capita consumption of both fruits and vegetables increased by about 12 percent during the 1990s. In 2001, Canadians consumed about 185 kg ( 408 pounds) of vegetables and 125 kg ( 276 pounds) of fruit per person. Leading vegetables were potatoes, lettuce, carrots, onions, tomatoes, and cabbage. The most popular fruits were bananas, apples, and oranges. Consumption of fruit juices increased by more than 27 percent during the 1990s (Agriculture and Agri-Food Canada, January 2004).

## Mexico

In Mexico, per capita consumption of fruits averaged 113 kg ( 249 pounds) per person during 1999-2001. Popular fruits were oranges and mandarins, bananas, mangoes, coconuts, lemons and limes, apples, pineapples, and grapes. Leading vegetables were potatoes, tomatoes, and chili peppers. Per capita consumption of vegetables averaged 72 kg ( 159 pounds) during 19992001 (United Nations Food and Agriculture Organization).

## NAFTA Imports

The NAFTA region is also an importer of fruits and vegetables (including intra-NAFTA imports), accounting for nearly 20 percent of the value of world horticultural imports during 1999-2001. The United States, the world's largest fruit and vegetable importing country, had a 14 -percent share of the global market, and Canada, the eighth-largest importer in the world, had a 4 -percent share. Mexico's share was 1 percent.

Figures 5.5 and 5.6 show total NAFTA imports of fruit and vegetable products from 1991-2001. Throughout the 1990s, fresh and processed fruits and vegetables accounted for the largest share of fruit and vegetable imports, with an 84-percent share during 1999-2001. Fruit and vegetable

Table 5.1-U.S. per capita use of selected vegetables, 2001

| Vegetable | Per capita consumption, <br> all uses | Per capita consumption, <br> fresh |  |
| :--- | :---: | :---: | :---: |
|  | Pounds |  |  |
| Potatoes | 137.8 |  |  |
| Tomatoes | 82.9 | 46.2 |  |
| Lettuce | 31.8 | 17.4 |  |
| Sweet corn | 27.4 | 31.8 |  |
| Onions | 18.9 | 9.4 |  |
| Carrots | 14.0 | 17.8 |  |

Source: Vegetables and Melons, Situation and Outlook Yearbook, 2003.

Figure 5.5
NAFTA fruit and vegetable imports by country


Source: USDA, FAS Global Agricultural Trade System.

Figure 5.6
NAFTA fruit and vegetable imports by commodity


Source: USDA, FAS Global Agricultural Trade System.
juices, tree nuts, and pulses imports accounted for 16 percent. All categories of imports showed steady growth during the 1990s, with imports of fresh vegetables increasing the most.

## Fresh Fruit Imports

During 1999-2001, the United States (at $\$ 3.6$ billion per year) and Canada (at $\$ 1.1$ billion per year) ranked first and eighth, respectively, in world fresh fruit
imports. Mexico's fruit imports were $\$ 389$ million per year. About 34 percent of fresh fruit imports by the NAFTA countries represent intra-NAFTA trade, while 22 percent come from Central American countries and 38 percent from other Southern Hemisphere sources. During 1999-2001, major fruits imported by the NAFTA countries included bananas ( 29 percent), grapes ( 18 percent), melons ( 8 percent), oranges, mandarins, apples, and citrus hybrids.

The United States is the predominant supplier of fresh fruits imported by its NAFTA partners, accounting for more than half of Canadian fruit imports and nearly three-fourths of Mexican imports during 1999-2001. The United States is also the primary destination for Canadian and Mexican fresh fruit exports. Mexican fruits account for about one-fifth of U.S. fresh fruit imports, while Canadian fruits account for merely 2 percent. Nearly half of U.S. fresh fruit imports from Mexico are grapes and melons. Although total fruit imports from Canada are minor, Canada dominates U.S. imports of cranberries, and Canada supplies about one-fifth of U.S. apple imports. In addition to its NAFTA partners, the United States purchases a substantial amount of fresh fruit from extra-NAFTA sources, particularly from Central American and Southern Hemisphere countries.

Similarly, Canada purchases a large share of fresh fruit from Central America and the Southern Hemisphere. Countries in these two regions accounted for 32 percent of Canadian fresh fruit imports during 1999-2001, compared with 57 percent from Mexico and the United States combined. In fact, about 60 percent of fresh fruit imports by all NAFTA countries come from Central America, South America, and other countries in the Southern Hemisphere. In comparison, the EU is a minor supplier, accounting for 3 percent of fresh fruit imports by the NAFTA countries. The EU, however, is the main source of mandarin oranges (including clementines and citrus hybrids) and fig imports, with a 60 -percent and 42-percent share, respectively, of these two NAFTA fruit imports.

Central American and South American countries are the main suppliers for NAFTA's leading fruit import: bananas. During 1999-2001, nearly 90 percent of the region's banana imports came from Costa Rica, Ecuador, Colombia, and Guatemala.

The most important South American supplier of fresh fruits for the NAFTA countries is Chile, which exported $\$ 878$ million of fresh fruit per year to the NAFTA countries during 1999-2001. Chilean fruit harvest schedules generally complement North American harvest schedules, so that winter imports from Chile help provide consumers in the NAFTA region with a year-round supply of fresh fruit. Chile has signed free trade agreements with Canada, Mexico, and the United States and now benefits from low U.S. tariffs on fresh fruit during the U.S. winter season. During 1999-2001, nearly 60 percent ( $\$ 522$ million) of NAFTA imports from Chile were grapes, followed by significant volumes of other fruits, including peaches and nectarines, apples, avocados, plums, pears and cherries.

## Fresh Vegetable Imports

As with fresh vegetable exports, vegetable imports by the NAFTA countries mostly originated within the region, with intra-NAFTA trade accounting for

86 percent of trade during 1999-2001. Mexico supplied nearly half of these imports, while the United States provided 25 percent and Canada 13 percent. An additional 7 percent came from the EU, and Southern Hemisphere sources added another 4 percent.

The highest valued fresh vegetable imports by the NAFTA countries are tomatoes ( 29 percent), peppers ( 17 percent), onions ( 7 percent), and cucumbers ( 6 percent), followed by a wide variety of products that include asparagus, potatoes, lettuce, carrots, garlic, beans, and celery. The great majority of NAFTA fresh vegetable imports from the EU consists of greenhouse tomatoes and peppers. Southern Hemisphere countries supply significant volumes of only three items-asparagus, garlic, and onions.

During 1999-2001, the United States (at $\$ 2.1$ billion per year) and Canada (at $\$ 802$ million per year) ranked second and sixth, respectively, in global fresh vegetable imports, while Mexico's vegetable imports were just \$100 million per year. The United States purchased 83 percent of its fresh vegetable imports from its NAFTA partners: 65 percent from Mexico and 18 percent from Canada. Similarly, Canada imported fresh vegetables primarily from the United States (84 percent) and Mexico ( 9 percent). Fresh vegetables from Mexico are mainly warm season ones like tomatoes, peppers, and cucumbers, imported during December-April. Rapid growth in the Canadian greenhouse tomato industry expanded Canada's share of U.S. tomato import value from 2 percent during 1991-93 to 20 percent in 1999-2001, while the import value share for Mexico declined from an average of 90 percent to 65 percent over the same two periods.

## Processed Fruit and Vegetable and Fruit and Vegetable Juice Imports

Imports of processed fruits and vegetables by the NAFTA countries expanded from less than $\$ 2.2$ billion in 1991 to nearly $\$ 4$ billion in 2001. Mexico recorded a particularly impressive increase, from less than $\$ 80$ million before 1991 to more than $\$ 350$ million in 2001. About 46 percent of processed fruit and vegetable imports were intra-NAFTA in 1999-2001, with about 22 percent coming from Asia and 15 percent from the EU.

In contrast, the variation in fruit and vegetable juice imports by NAFTA countries was relatively small during 1991-2001, ranging from about \$1 billion to $\$ 1.4$ billion. About 70 percent of the imports were extra-NAFTA trade during 1999-2001, with nearly 50 percent of total imports coming from Central America, South America, and other Southern Hemisphere countries. Brazil is the leader among these countries, supplying 20 percent of the juices imported by NAFTA countries during this period.

## Trade Frictions Among the NAFTA Countries

Differences in regulatory requirements among the NAFTA countries have led to some protracted disputes. A full discussion of agricultural trade disputes among NAFTA countries since 1990 is available in Effects of North American Free Trade Agreement on Agriculture and the Rural Economy (USDA, ERS, 2002, www.ers.usda.gov/publications/wrs0201/ ). Some of the more important issues regarding fruits and vegetables are highlighted below.

## U.S. Tomato Imports from Mexico

Imports constitute a large proportion of the tomatoes for U.S. domestic consumption, and Mexico is the main source. During 1999-2001, U.S. imports of fresh tomatoes equaled 764,734 metric tons, valued at $\$ 740$ million, with Mexico accounting for 82 percent by volume and 65 percent by value.

Prior to 1995, the general U.S. tariff on imported tomatoes was either 3.3 cents or 4.6 cents per kilogram, depending on the season. Under NAFTA, the United States gradually began to phase out these tariffs for fresh tomatoes from Mexico.

In April 1996, the Florida tomato industry charged Mexico with selling tomatoes in the U.S. market at prices below fair market value, thus materially injuring the U.S. domestic industry. In response, the U.S. Department of Commerce (DOC) initiated an anti-dumping investigation. However, on October 28, 1996, the DOC announced an agreement with principal Mexican producers/exporters to settle the dispute, and on November 1, the DOC suspended the anti-dumping investigation.

This agreement established a seasonal reference price, or minimum price, covering most fresh Mexican tomatoes exported to the United States. From October 23 to June 30, the minimum price for Mexican fresh-market tomatoes was $\$ 5.27$ per 25 -pound box ( $\$ 0.2108$ per pound). Later, a second seasonal reference price was established; from July 1 to October 22 the minimum price was $\$ 4.30$ per box ( $\$ 0.1720$ per pound). This accounted for the difference in summer and winter market conditions.

In late spring 2002, a large group of Mexican producers pulled out of the suspension agreement. In July the agreement was terminated, the dumping case resumed, and the United States imposed preliminary anti-dumping duties. On December 4, 2002, the DOC and Mexican growers/shippers signed a new suspension agreement, and the anti-dumping case was again suspended. In the new suspension agreement, the reference prices remain unchanged from the previous suspension agreement. The two major changes in the agreement are mandatory participation for all Mexican growers/shippers selling to the United States and better enforcement to ensure that the minimum price is honored.

## Mexican Apple Imports From the United States

On March 6, 1997, Mexico initiated an anti-dumping investigation against U.S. apples. The Secretariat of Commerce and Industrial Promotion (SECOFI) made a preliminary determination of dumping and imposed a preliminary duty. On March 19, 1998, the U.S. apple industry and SECOFI signed an agreement suspending this duty, and the U.S. industry agreed to comply with a minimum-price scheme. This agreement remained in force until August 2002, when Mexican growers requested that the reference price scheme be dropped and that a new anti-dumping investigation be undertaken. As a result of this investigation, Mexico now charges an anti-dumping margin of 46.58 percent on U.S. apples.

Phytosanitary inspection requirements for U.S. exports to Mexico have also disrupted trade. For a detailed discussion of individual cases, including apples, see Effects of North American Free Trade Agreement on Agriculture and the Rural Economy (USDA, ERS, 2002, www.ers.usda.gov/publications/wrs0201/).

## U.S. Avocado Imports From Mexico

From 1914 to 1993, the United States prohibited fresh avocado imports from Mexico due to phytosanitary concerns. Since 1993, Mexico and the United States have implemented a series of measures designed to permit freer trade in fresh avocados while addressing phytosanitary concerns. Beginning in November 1997, avocados from certain growers in Mexican states that met stringent pest control requirements in production, packing, and transportation were allowed to be exported from November through February to 19 Northeastern and Midwestern States, along with the District of Columbia. These measures were taken to minimize the risk of introducing pests that could threaten the health of U.S. avocado groves. In October 2001, the list of States eligible to receive avocados from Mexico was expanded to include 12 additional States and the shipping season was extended to October 15 through April 15.

## Canadian Potato Imports From the United States

Since 1984, Canada has imposed an anti-dumping duty against U.S. fresh potatoes into British Columbia. Potatoes imported between May 1 and July 31 are not subject to a duty. The Canadian International Trade Tribunal reviewed the anti-dumping duty in 2000, and decided it would continue for at least another 5 years.

## NAFTA Region Conclusions

The countries that comprise NAFTA are very important producers, consumers, and traders of horticultural products. Both intra- and extraNAFTA trade grew rapidly during the 1990s. The United States is a major producer and consumer of many fruits and vegetables and is the leading trade partner for both Canada and Mexico. However, extra-NAFTA trade is more important than intra-NAFTA trade for the United States, except in the case of fresh vegetables.

Fruit and vegetable crops in the NAFTA countries do not benefit from any direct government payments such as price support programs, but all three countries have marketing structures that help insure the maintenance of grades and standards. Nevertheless, differences in regulatory requirements among NAFTA countries can sometimes lead to protracted intra-NAFTA trade disputes.


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