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**International Agricultural Trade and Policy Center**

**UNITED STATES TRADE FLOWS FOR SELECTED  
CATEGORIES OF SPECIALTY CROPS**

By

**Garfield G. Lowe, Carlton G. Davis, & Richard L. Kilmer**

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## **INTERNATIONAL AGRICULTURAL TRADE AND POLICY CENTER**

The International Agricultural Trade and Policy Center (IATPC) was established in 1990 in the Food & Resource Economics Department (FRED) of the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida. Its mission is to provide information, education, and research directed to immediate and long-term enhancement and sustainability of international trade and natural resource use. Its scope includes not only trade and related policy issues, but also agricultural, rural, resource, environmental, food, state, national and international policies, regulations, and issues that influence trade and development.

The Center's objectives are to:

- Support initiatives that enable a better understanding of U.S. and international trade policy issues impacting the competitiveness of Florida agriculture and all specialty crops and livestock nationwide;
- Serve as a nationwide resource base for research on international agricultural trade policy issues on all specialty crops and livestock;
- Disseminate agricultural trade related research results and publications;
- Interact with researchers, business and industry groups, state and federal agencies, and policymakers to examine and discuss agricultural trade policy questions.

Programs in the IATPC have been organized around five key program areas.

- Risk Management and Capital Markets
- Agricultural Labor
- Regulatory Policy and Competitiveness
- Demand Systems and International Trade
- State and Local Government Policy and Agricultural Competitiveness.

There are 10 faculty from the Food & Resource Economics Department who conduct research in these program areas for the IATPC. Each of these program areas has a set of projects that have been undertaken to address these critical areas of need. Faculty have acquired additional grant funds of more than one million dollars over the last three years to augment these programs.

## ABSTRACT

Nationally, Florida ranked second in farm cash receipt from all crops and second, based on value, in vegetable production (USDA, 2003). It also ranked fourteenth out of all the states with respect to agricultural exports with its top exports, fruits and vegetables, falling within the category of specialty crops. According to the USDA (2003), Florida's agricultural exports helped to boost farm prices and income and supported approximately 17,000 jobs both on and off farm in 2001. As such, its agricultural exports are important to Florida's agricultural and statewide economy. From a Florida farm cash receipts perspective, increased imports could undermine revenue earnings from specialty crop production, especially if there is not a comparable growth in the exports of these crops. This report covered the period 1991 to 2002 and examined trade flows for selected specialty crops deemed important to Florida's agriculture.

Overall, the US had a relatively high import level of the selected specialty crops. This was apparent from the widening trade gaps and the declining surpluses experienced by all commodities, with the exception of oranges and strawberries. CANMEX was the dominant supplier of vegetables, and growing imports from this group drove the growing vegetable trade deficit. With respect to fruits, CANMEX was also a dominant supplier and affected trade balances however, many of the declining fruit trade balances were due to declining exports to markets such as Asia and the Europe. CANMEX played a major role in the trade of foliage and floriculture but did not dominate the trade.

Over the period 1991 to 2002 there were changes in the trade flows of the selected vegetables, fruits and foliage and floriculture. Two noticeable trends were the concentration of trade with CANMEX, especially with respect to vegetable exports and declining exports to Asia and Europe. Also noticeable were declining trade balances experienced by the majority of the commodities in this study. With free trade agreements, an increased inflow of goods is expected as trade barriers are lowered.

Preparing for additional imports resulting from expanded regional free trade agreements in the western hemisphere requires the commitment of additional resources toward the expansion of existing markets and the development of potentially new markets.

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# United States Trade Flows for Selected Categories of Specialty Crops

Garfield G. Lowe, Carlton G. Davis and Richard L. Kilmer<sup>1</sup>

## 1 Introduction

### *1.1 Background and Objectives*

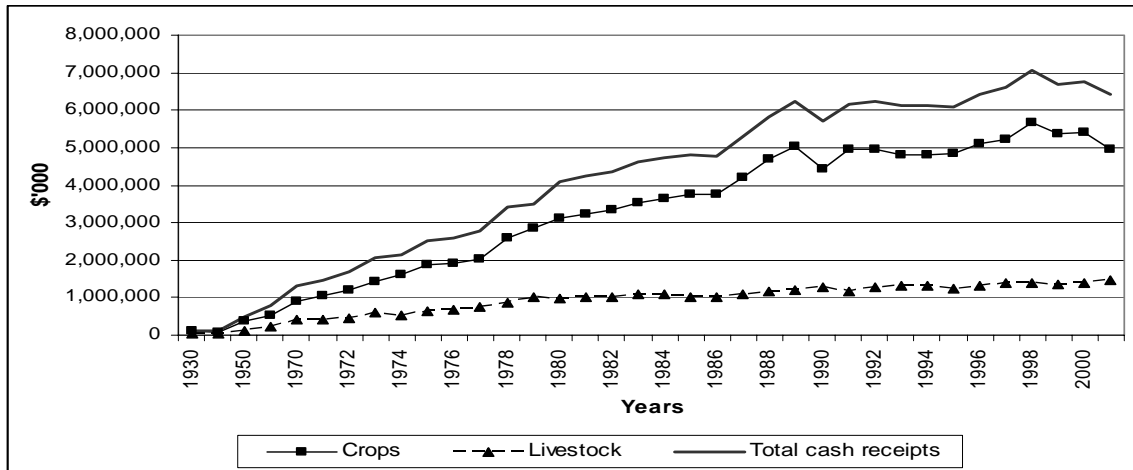
The formation of regional trade areas (RTAs) within the western hemisphere could have a major impact on the competitive position of United States (US) specialty crops<sup>2</sup>, which may be reflected in changing trade flows. As the US continues to negotiate free trade area agreements within the western hemisphere, the accompanying reduction and /or removal of trade barriers on a wide range of agricultural products, including specialty crops, could result in increased imports of these commodities from the RTA partners, specifically from the Latin American and Caribbean (LAC) countries. The potentially negative impact of this would be greater for winter production areas such as Florida, as the LAC produces the same specialty crops and have similar production periods.

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<sup>1</sup> Garfield G. Lowe is a Graduate Research Assistant in the Food and Resource Economics Department at the University of Florida. Carlton G. Davis and Richard L. Kilmer are Distinguished Professor and Professor respectively, in the Food and Resource Economics Department at the University of Florida and are members of the International Agricultural Trade and Policy Center (IATPC) at the University of Florida.

<sup>2</sup> Under the Technical Assistance for Specialty Crops Program a specialty crop is defined as “all cultivated plants, or the products thereof, produced in the United States, except for wheat, feed grains, oilseeds, cotton, rice, peanuts, sugar, and tobacco (National Archives and Records Administration (NARA) 2002).

**Figure 1.1.1: Florida's Farm Cash Receipts (1930 -2001)**



Source: USDA National Agricultural Statistics Service (NASS), 2003

From a Florida farm cash receipts perspective, increased imports could undermine revenue earnings from specialty crop production, especially if there is not a comparable growth in the exports of these crops. Nationally, Florida ranked second in farm cash receipt from all crops and second, based on value, in vegetable production (USDA Foreign Agricultural Service (FAS), 2003). It also ranked fourteenth out of all the states with respect to agricultural exports with its top exports, fruits and vegetables, falling within the category of specialty crops. According to the USDA FAS (2003), Florida’s agricultural exports helped to boost farm prices and income and supported approximately 17,000 jobs both on and off farm in 2001, and as such are important to Florida’s agricultural and statewide economy.

Data from the National Agricultural Statistics Service (NASS) showed strong, steady growth of Florida’s total farm cash receipts (Fig 1.1.1), and it was evident from the data that farm cash receipts from all crops contributed significantly to this overall growth. In 2001 farm cash receipts amounted to \$6.95 billion, of which specialty crops, mainly citrus and vegetables, contributed approximately 55%. Vegetables and melons contributed approximately \$1.44 billion; fruits contributed approximately \$1.32 billion; and foliage and floriculture, \$0.76 billion.

This report covers the period 1991 to 2002 and examines trade flows for selected specialty crops deemed important to Florida’s agriculture. The general objective is to provide an overview of trade flows in specialty crops, particularly among US major

trading partners and, by so doing, assess the existence of traded commodity gaps as they may be relevant to the Florida situation.

## **1.2 Data**

Data from FASS and supplementary data were the basis for crop selection. Using the 1992 Harmonized System (HS) codes, trade flow data covering the 1991 to 2002 period were extracted from the United Nations' Comtrade database. In the raw data all values were reported in nominal US dollars and volume in kilograms (kg). In this report all values have been rounded to the nearest million, and volume rounded to the nearest Metric Tons (MT)<sup>3</sup>. Market shares reported are based on value and calculated from the raw data.

## **1.3 Organization**

The report focuses on the following crops: Fresh Vegetables and Melons (Beans, Cabbage, Sweet Corn, Cucumber, Egg Plants, Green Peppers, Irish Potatoes, Radishes, Squash, Tomatoes, and Watermelons), Fresh Fruits (Berries, Grapefruit, Lemons/Limes, Oranges, Tangelos, Tangerines, Temples, and Strawberries), and Foliage and Floriculture (Cut Flowers, Foliage, and Ornamental Mosses).

The US trading partners were grouped into six categories based on United States Department of Agriculture's (USDA) Foreign Agricultural Service (ERS) classifications used in their Foreign Agricultural Trade of the United States (FATUS). The categories were Africa, Asia, CANMEX (consisting of the current NAFTA trading partners), LAC, Europe (consisting of the countries that currently constitute the European Union (EU)) and the Rest of the World (ROW). The members of the groups are as follows:

**Africa:** Algeria, Angola, Botswana, Burundi, Chad, Congo (Brazzaville), Democratic Republic of Congo, Cameroon, Comoros, Central African Republic, Djibouti, Afars-Issas, Benin, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Gabon, Ghana, Guinea, British Ind. Ocean Territory, Cote d'Ivoire, Kenya, Liberia, Lesotho, Libya, Madagascar, Malawi, Mali, Morocco Mauritius, Mauritania, Mozambique, Niger, Nigeria, Zimbabwe, Rwanda, Republic of South Africa, Senegal, St. Helena (British West Africa), Sierra Leone, Somalia, Sudan, Togo,

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<sup>3</sup> 1000 kg = 1 MT

Tunisia, United Republic of Tanzania, Uganda, Burkina Faso, Seychelles and Dependents, Namibia, Western Sahara, Swaziland, Cape Verde, Guinea-Bissau, Sao Tome and Principe, French Southern & Antarctic Lands, Reunion, and Zambia

**Asia:** Afghanistan, Bahrain, Bangladesh, Bhutan, Brunei, Burma, Cambodia, Peoples Republic of China, Cyprus, East Timor, Gaza Strip, Hong Kong, India, Indonesia, Iran, Iraq, Iraq-Saudi Arabia Neutral Zone, Israel, Japan, Jordan, Democratic People's Republic of Korea, Republic of Korea, Kuwait, Laos, Lebanon, Macau, Malaysia, Maldive Islands, Mongolia, Nepal, Oman, Pakistan, Philippines, Qatar, Saudi Arabia, Singapore, Sri Lanka, Syria, Taiwan, Thailand, Turkey, United Arab Emirates, Vietnam, West Bank, Yemen (Aden), and Yemen (Sanaa),

**CANMEX:** Canada and Mexico

**LAC:** Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands (Islas Malvinas), French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Montserrat, Netherlands Antilles (excluding Aruba), Nicaragua, Panama, Paraguay, Peru, St. Christopher-Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, and Venezuela.

**Europe:** Andorra, Austria, Belgium, Belgium-Luxembourg<sup>4</sup>, Denmark, Faroe Islands, Finland, France, Federal Republic of Germany, Greece, Ireland, Italy, Luxembourg, Monaco, Netherlands, Portugal, San Marino, Spain, Sweden, United Kingdom, Vatican City.

**Row:** All countries that do not fall in the above categories

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<sup>4</sup> Denotes an obsolete country

## **2 FRESH VEGETABLES AND MELONS**

### **2.1 Beans**

#### **2.1.1 Export**

Exports of beans by the US grew from 18,805.59 MT valued at \$17.84 million in 1991 to 24,805.78 MT valued at \$25.99 million in 2002 (see Tables 2.1.1 and 2.1.2). This represented approximately 31.9% growth in volume at an average rate of 3.8% per annum and a 45.7% increase in value at an average rate of 3.8% per annum. The steady growth of exports to CANMEX, which was the major market, underpinned the overall growth of US bean exports. In 1991, this group accounted for 93.0% of the total value of US beans exported, receiving 16,732.08 MT of US beans valued at \$16.59 million. Over the period 1991 to 2002, CANMEX maintained its position as the major destination for US bean exports. In 2002 the export of beans to the group stood at 23,727.7 MT valued at \$25.06 million. This represented 96.4% of the total value of US beans exported. In 1991 the Asian and LAC markets each received 2.9% of the total value of beans exported by the US, while Europe and the ROW received 0.8% and 0.4% respectively.

Exports to Asia and Europe showed an overall decline between 1991 and 1994; however, in 1995 there was a significant increase in the export of beans to these groups. In 1996, the export of beans to Europe from the US fell to 153.93 MT valued at \$0.18 million from its 1995 high of 757.5 MT valued at \$1.01 million. After 1996, export of beans to Europe from the US showed an erratic upward trend. By 2002, exports of beans from the US to Europe attained a level of 268.59 MT valued at \$0.31 million, approximately 1.2% of the total value of beans exported by the US in that year.

US exports of beans to Asia peaked in 1996 at 1,564.12 MT valued at \$0.95 million and then fell sharply in 1997 to 73.41 MT valued at \$0.06 million, which was 0.2% of the total value of beans exported by the US at that time. From 1997 to 2002, there was an erratic upward trend in the growth of US bean export to this market. By 2002, Asia received 659.99 MT of beans valued at \$0.5 million, which was 1.9% of the total value of US bean exports (see Tables 2.1.1 and 2.1.2).

Between 1991 and 1993 there was an overall decrease in the US export of beans to the LAC from 967.84 MT valued at \$0.52 million to 238.64 MT valued at \$0.17

million (see Tables 2.1.1 and 2.1.2). Between 1993 and 1998, exports to the LAC grew, especially between 1996 and 1997 where US beans exported to the LAC increased from 1686.04 MT valued at \$1.44 million to 8904.04 MT valued at \$5.37 million. US export of beans to the LAC peaked in 1998 at 15,305.28 MT valued at \$5.05 million<sup>5</sup> (approximately 19.4% of the total value of beans exported by the US). After 1998, the US exports of beans to the LAC declined steadily to 2388.05 MT valued at \$1.24 million in 2001 and then plunged in 2002 to 32.9 MT valued at \$0.02 million (0.1% of the total value of US bean export).

### **2.1.2 Import**

The importation of beans by the US grew steadily between 1991 and 2002. In 1991 the US imported 13,805 MT valued at \$12.01 million (Tables 2.1.1 and 2.1.2). Import volume grew at an average rate of 8.6% per annum and value at an average rate of 10.7% per annum, and by 2002 imports had increased to 30,634.47 MT valued at \$35.07 million. This represented a 121.9% increase in volume and a 192.0% increase in value over the 12-year period. CANMEX had the largest market share, approximately 98.0% of the total value of the US beans import market in 1991 and 95.7% in 2002.

In 1991, the US imported 156.71 MT of beans (Table 2.1.1), valued at \$0.17 million (Table 2.1.2), from the LAC, and by 2002, this increased steadily to a high of 919.46 MT valued at \$1.44 million. The strongest growth of bean imports from the LAC occurred between 1997 and 1998 when imports grew from 249.3 MT valued at \$0.37 million to 408.71 MT valued at \$0.66 million and again between 2001 and 2002 from 542.44 MT to its high of 919.46 MT valued at \$1.44 million. This overall increase in beans imported resulted in the LAC's share (by value) of the bean import market of the US increasing from 1.4% in 1991 to 4.1% in 2002. (See tables 2.1.1 and 2.1.2)

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<sup>5</sup> Though the value of bean exports to the LAC peaked in 1997, volume peaked in 1998. This growth in the volume of exports unaccompanied by a similar growth in value is a result of falling per unit price of beans exported to the LAC.



**Table 2.1.1: Volume of Beans Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	19.64	7.63	6.94	--	--	33.93	21.53
ASIA	795.98	299.58	261.84	236.97	1345.33	1564.12	73.41	191.16	541.41	505.47	817.44	659.99
Europe	166.26	286.19	211.26	75.95	757.50	153.93	498.75	205.25	377.07	241.12	330.39	268.59
LAC	967.84	691.42	238.64	614.34	1876.11	1686.04	8904.84	15305.29	12435.99	9722.85	2388.05	32.90
CANMEX	16732.08	19332.80	18492.85	15597.96	17366.38	17597.68	17851.92	19333.18	20196.03	22068.99	22744.24	23727.70
ROW	143.44	171.06	32.00	114.39	117.22	--	31.04	19.46	35.38	5.38	19.67	95.07
TOTAL	18805.59	20781.05	19236.60	16639.62	21462.53	21021.42	27367.57	35061.28	33585.87	32543.80	26333.72	24805.78
US Imports												
AFRICA	--	10.06	--	--	8.17	--	--	--	--	1.25	7.63	2.38
ASIA	31.56	20.00	61.52	64.78	145.20	57.52	32.52	0.13	83.44	62.25	66.62	24.99
Europe	19.35	10.50	17.89	8.31	10.64	2.51	10.27	4.31	80.14	9.94	7.75	57.86
LAC	156.71	99.48	129.00	311.12	216.03	271.61	249.30	408.71	433.66	499.11	542.44	919.46
CANMEX	13597.40	13746.07	13355.30	16474.45	19632.88	22620.99	24494.00	23456.25	23371.01	26349.90	27285.29	29629.23
ROW	--	--	--	--	--	21.64	--	--	63.00	44.75	1.25	0.56
TOTAL	13805.02	13886.12	13563.71	16858.66	20012.90	22974.27	24786.09	23869.40	24031.26	26967.19	27910.98	30634.47

-- Represents data not reported.

Source: United Nations COMTRADE database

**Table 2.1.2: Value of Beans Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	0.01	0.01	0.01	--	--	0.02	0.02
ASIA	0.52	0.18	0.35	0.29	0.92	0.95	0.06	0.08	0.27	0.33	0.55	0.50
Europe	0.14	0.50	0.32	0.15	1.01	0.18	0.47	0.15	0.33	0.15	0.29	0.31
LAC	0.52	0.44	0.17	0.40	0.73	1.44	5.37	5.05	4.00	4.29	1.24	0.02
CANMEX	16.59	19.28	19.32	18.72	19.53	19.71	19.72	20.70	19.92	22.14	22.24	25.06
ROW	0.07	0.05	0.02	0.04	0.07	--	0.03	0.01	0.02	0.00	0.01	0.06
TOTAL	17.84	20.45	20.18	19.59	22.26	22.30	25.64	26.00	24.53	26.92	24.36	25.99
US Imports												
AFRICA		0.01			0.01					0.01	0.01	0.00
ASIA	0.03	0.05	0.07	0.06	0.15	0.09	0.05	0.00	0.07	0.09	0.08	0.03
Europe	0.04	0.03	0.04	0.02	0.02	0.01	0.02	0.02	0.07	0.03	0.02	0.03
LAC	0.17	0.19	0.23	0.38	0.24	0.35	0.37	0.66	0.83	0.90	0.87	1.44
CANMEX	11.76	14.30	16.67	18.69	24.68	26.32	30.78	30.12	31.03	30.22	35.51	33.57
ROW	--	--	--	--	--	0.01	--	--	0.04	0.03	0.00	0.00
TOTAL	12.01	14.58	17.01	19.15	25.10	26.78	31.22	30.80	32.04	31.27	36.50	35.07

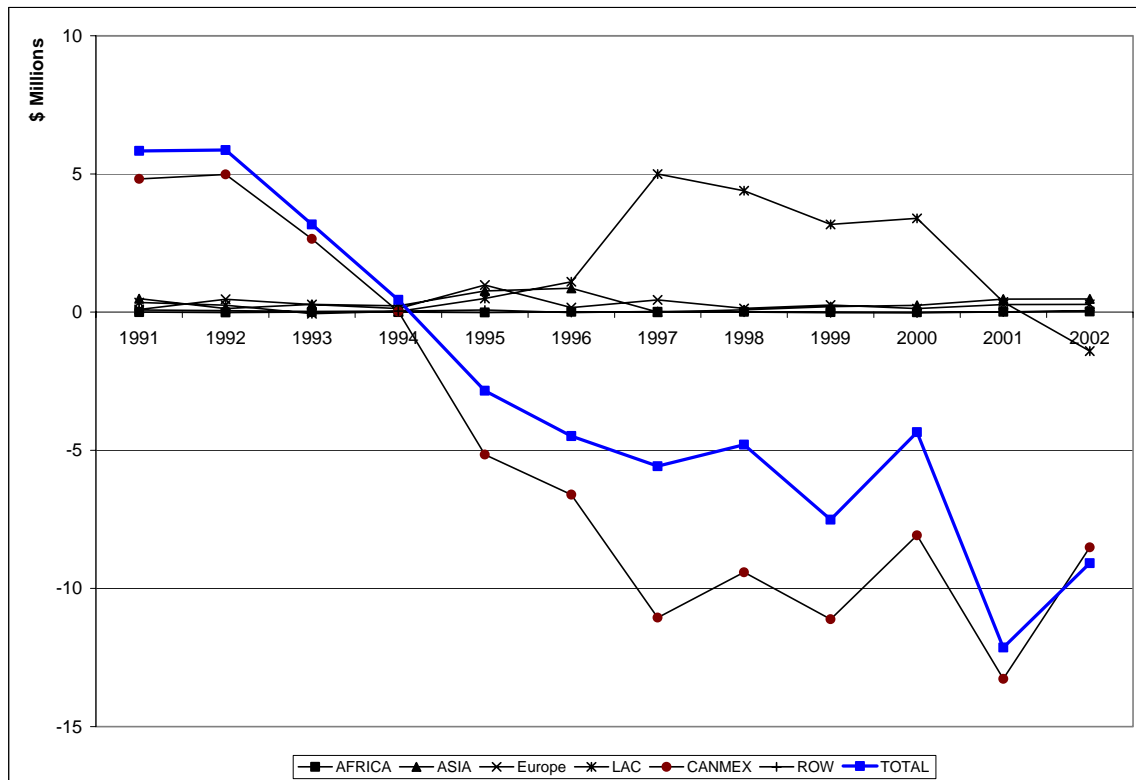
-- Represents data not reported.

Source: *United Nations COMTRADE database*

### 2.1.3 Trade Balance

Despite the fact that the US maintained a trade surplus with most of its trading partners with respect to the trade of beans, between 1991 and 2002, the overall trade balance declined (Figure 2.1.1). In 1991, the US had an overall trade surplus of approximately \$6 million and by 2001, the trade balance stood at a deficit of approximately \$9 million. The declining balance resulted from a declining trade balance with CANMEX as imports from this group grew at a faster rate than exports. However, the trade surplus in the LAC market, which resulted from the strong performance of exports to the LAC from 1996 to 2000, moderated the effect of the declining trade balance with CANMEX (see Figure 2.1.1). The 2002 figure is an improvement over the approximately \$12 million trade deficit of the previous year and can be attributed to a reduction in the trade deficit with CANMEX. The declining trade balance with the LAC dampened the positive impact of the improved trade balance with CANMEX on the overall bean trade deficit of the US (see Figure 2.1.1).

**Figure 2.1.1 Value of US' Bean Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.2 Cabbage

### 2.2.1 Export

In 1991 the export of cabbage from the US totaled approximately 129,046.78 MT (Table 2.2.1) valued at \$76.6 million (Table 2.2.2) and increased steadily to approximately 220,522.24 MT valued at \$146.36 million by 2002. This represented a 70.9% growth in volume at an average rate of 5.2% per annum and a 91.1% increase in the value of cabbage exported at an average rate of 7% per annum over the 12-year period. The major markets in 1991 were CANMEX, which accounted for 74.7% of total value of cabbage exported by the US, and Asia, which accounted for 23.5%. Lesser markets were the LAC, which accounted for 1.1%, and Europe, which accounted for 1% of the value of US cabbage exports in 1991.

The export of cabbage from the US to CANMEX grew at a relatively slow and steady rate. In 1991, the US exported 109,684.44 MT of cabbage, valued at \$57.2 million, to CANMEX, and by 2002 this had grown by 21.0% in volume, at an average

rate of 1.8% per annum, and 47.3% in value, at an average rate of 4.1% per annum, to 132,729.86 MT valued at \$84.23 million. In contrast, the export of cabbage from the US to Asia grew at a relatively fast yet steady pace moving from 17915.65 MT valued at \$17.96 million in 1991 to 87142.85 MT valued at \$61.77 million in 2002. This was a 386.4% increase in volume at an average rate of 19.1% per annum and a 243.9% increase in value at an average rate of 14.9% per annum.

The US exported 683.15 MT of cabbage valued at \$0.83 million to the LAC in 1991. This was approximately 1.1% of the total value of US cabbage exports. Between 1991 and 1996, export of cabbages to this group declined to 202.09 MT valued at \$0.14 million and then increased to 628.82 MT valued at \$0.37 million by 2001. In 2002 exports to the LAC fell to 381.27 MT valued at \$0.22 million, approximately 0.2% of the total value of US cabbage exported in that year.

There was an irregular movement in the US export of cabbages to Europe as it increased from 562.85 MT, valued at \$0.52 million, in 1991 to 1759.51 MT, valued at \$1.0 million, in 1996. Exports then fell sharply to 72.96 MT valued at \$0.04 million by 1998. Between 1998 and 2001, US export of cabbages showed relatively weak growth reaching 231.5 MT valued at \$0.19 million and then fell in 2002 to 84.11 MT valued at \$0.06 million.

In 2002 the distribution of exports were similar to the distribution in 1991, with CANMEX being the major market followed by Asia, the LAC and then Europe. With rapid growth in the Asian market and the relatively slow growth in the CANMEX market, along with the marked decline of exports to Europe, exports to Asia now accounted for 42.2%, by value, of US exports while CANMEX accounted for 57.6%. The LAC lost ground as an export market and by 2002, the share of the total value of cabbages exported to this region by the US decreased to 0.2%.

### **2.2.2 Import**

In 1991 the US imported 35,432.84 MT of fresh cabbages valued at \$11.94 million. In a twelve-year period, the import market recorded a 264% growth in volume and a 437% growth in value to attain 128,863.49 MT valued at \$64.14 million by 2002. In 1991, the major group that supplied the US market with cabbages was CANMEX,

which had a 98% share of the US import market. The LAC group was the next largest suppliers with only 2% of the import market share.

From 1991 through to 2002, importation of cabbages from CANMEX grew steadily, increasing from 35,042.24 MT with a value of \$11.73 million to 126,478.45 MT valued at \$62.63 million. Although there was an overall growth in cabbage imported from the LAC over the same period, it was not as steady as the growth of CANMEX imports. In 1991, 256.09 MT of cabbage valued at \$ 0.17 million was imported from LAC, and by 1992 it had increased to 607.82 MT valued at \$0.72 million. Between 1992 and 1995, the importation of cabbage from the LAC declined to 103.77 MT valued at \$0.18 million. In 1996, the volume of cabbage imported from the LAC fell relative to the preceding year while the value increased. Between 1996 and 1999, both volume and value of imports from the LAC increased from 91.23 MT valued at \$0.19 million to 917.25 MT valued at \$0.6 million before falling in 2000 to 133.16 MT valued at \$0.22 million. By 2002 imports of cabbage from the LAC increased dramatically to 2,235.56MT valued at \$1.36 million (see tables 2.2.1 and 2.2.2).

**Table 2.2.1: Volume of Cabbage Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	0.00	0.00	63.19	--		69.23	19.00
ASIA	17915.65	20015.63	37895.03	60828.80	62515.84	59970.03	64039.56	70725.65	85375.22	118001.98	89140.61	87142.85
Europe	562.85	1121.16	277.70	1663.60	1943.26	1759.51	341.89	72.96	60.92	185.87	231.50	84.11
LAC	683.15	635.11	357.42	489.73	347.21	202.09	525.64	499.94	458.77	395.63	628.82	381.27
CANMEX	109684.44	120173.00	119396.50	112543.81	118954.06	121720.62	121887.81	124717.56	123504.37	125355.82	124726.44	132729.86
ROW	200.69	152.76	168.30	727.94	1160.89	2187.02	2885.09	1357.94	76.36	53.66	499.09	165.15
<b>TOTAL</b>	<b>129046.78</b>	<b>142097.66</b>	<b>158094.94</b>	<b>176253.87</b>	<b>184921.26</b>	<b>185839.28</b>	<b>189679.98</b>	<b>197437.23</b>	<b>209475.65</b>	<b>243992.94</b>	<b>215295.70</b>	<b>220522.24</b>
US Imports												
AFRICA	--	26.18	--	--	319.00	--	--	--	--	30.00	0.00	0.00
ASIA	1.00	2.50	4.63	0.00	2.62	2.88	13.19	2.35	41.77	33.41	88.64	128.10
Europe	122.14	170.66	692.44	122.47	0.00	0.87	5.00	948.94	0.00	14.44	0.00	21.38
LAC	256.09	607.82	441.60	123.06	103.77	91.23	182.21	280.04	917.25	133.16	470.61	2235.56
CANMEX	35042.24	34906.59	47950.63	44477.62	67243.35	72059.48	88575.32	97310.35	99616.36	111924.71	126580.39	126478.45
ROW	--	--	--	--	--	0.00	--	--	0.00	0.00	4.56	0.00
<b>TOTAL</b>	<b>35432.84</b>	<b>35713.75</b>	<b>49089.30</b>	<b>44723.15</b>	<b>67668.74</b>	<b>72154.45</b>	<b>88775.71</b>	<b>98548.24</b>	<b>100575.38</b>	<b>112135.71</b>	<b>127144.19</b>	<b>128863.49</b>

-- Represents data not reported.

Source: United Nations COMTRADE database

**Table 2.2.2: Value of Cabbage Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	0.00	0.00	0.06	--	--	0.04	0.01
ASIA	17.96	18.26	30.04	48.64	51.62	47.84	53.75	54.70	65.67	85.37	61.17	61.77
Europe	0.52	1.56	0.29	1.56	0.80	1.00	0.31	0.04	0.07	0.08	0.19	0.06
LAC	0.83	0.46	0.52	0.61	0.27	0.14	0.23	0.34	0.30	0.24	0.37	0.22
CANMEX	57.20	57.51	65.57	61.25	67.03	64.60	68.67	73.29	64.41	77.34	72.77	84.32
ROW	0.09	0.10	0.10	0.37	0.51	0.97	0.96	0.41	0.05	0.03	0.17	0.07
<b>TOTAL</b>	<b>76.60</b>	<b>77.89</b>	<b>96.52</b>	<b>112.43</b>	<b>120.22</b>	<b>114.54</b>	<b>123.92</b>	<b>128.84</b>	<b>130.51</b>	<b>163.06</b>	<b>134.70</b>	<b>146.36</b>
US Imports												
AFRICA	--	0.02	--	--	0.19	--	--	--	--	0.02	0.00	0.00
ASIA	0.00	0.01	0.00	0.00	0.00	0.02	0.03	0.00	0.03	0.02	0.08	0.13
Europe	0.04	0.06	0.38	0.04	0.00	0.00	0.00	0.36	0.01	0.01	0.00	0.02
LAC	0.17	0.72	0.53	0.18	0.18	0.19	0.36	0.41	0.60	0.22	0.45	1.36
CANMEX	11.73	9.78	15.04	14.07	20.36	20.88	30.12	40.79	40.85	49.41	59.86	62.63
ROW	--	--	--	--	--	0.00	--	--	0.00	0.00	0.00	0.00
<b>TOTAL</b>	<b>11.94</b>	<b>10.60</b>	<b>15.96</b>	<b>14.28</b>	<b>20.74</b>	<b>21.09</b>	<b>30.51</b>	<b>41.57</b>	<b>41.48</b>	<b>49.68</b>	<b>60.40</b>	<b>64.14</b>

-- Represents data not reported.

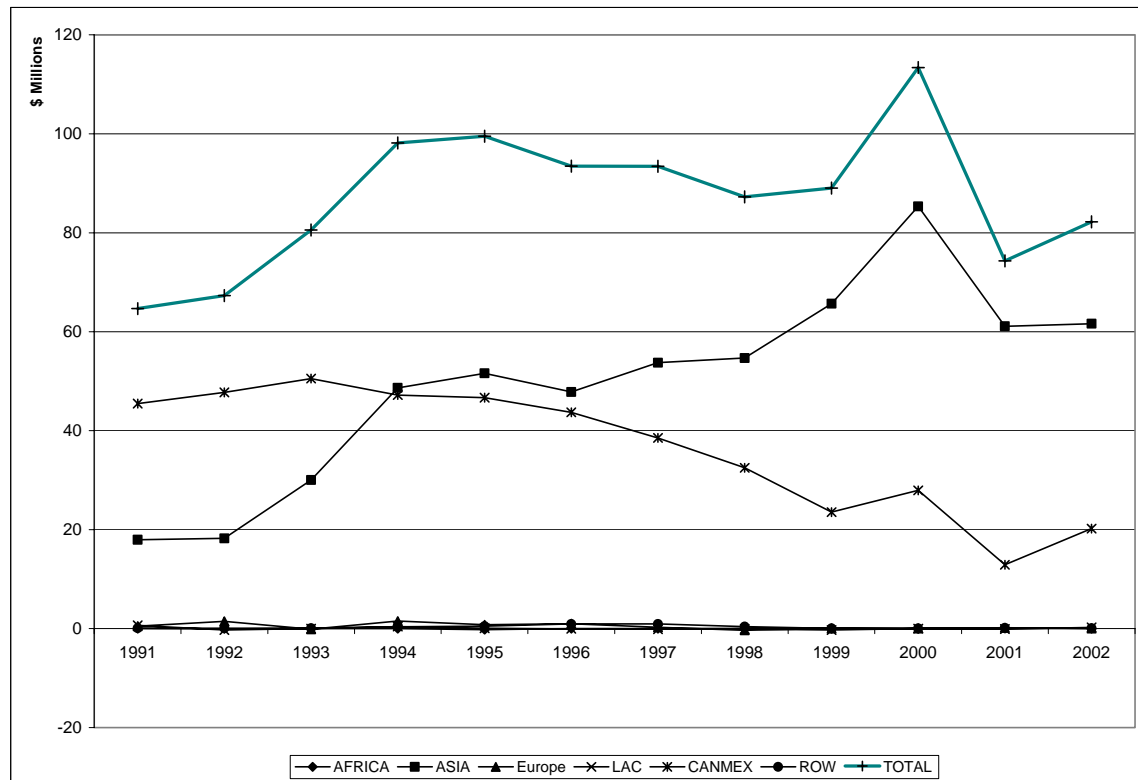
Source: United Nations COMTRADE database

### 2.2.3 Trade Balance

Over the period 1991 to 2002, the US maintained a net trade surplus with respect to the trade of cabbages (Figure 2.2.1). This surplus grew between 1991 and 1994 from \$64.65 million to \$98.15 million fueled by the increasing trade surplus in the Asian market with the rapid growth of exports to that market. In 2000, the US cabbage trade surplus peaked at \$113.38 million before falling to \$82.22 million in 2002. This movement in the trade surplus mirrored, for a great part, the movement in the trade surplus with the Asian market.

Despite the outstanding performance of the Asian market, there was an overall downward trend of the net trade surplus from 1995 through to 2002, and this can be attributed to the continued decline of the trade surplus with CANMEX, particularly due to the growth in imports from this group.

**Figure 2.2.1: Value of US' Cabbage Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.3 Corn (Sweet)

### 2.3.1 Export

In 2002 the US exported 48,741.56 MT of sweet corn, valued at \$403.67 million. This represented a moderate 16.1% increase in volume and a 25.0 % increase in value over the 41998.50 MT valued at \$34.94 million exported in 1991. The major destinations in 1991 in order of the share of exports received were Asia, the ROW, and Europe. Over the period 1991 to 2002, US exports of sweet corn to Asia grew, moving from 28,607.45 MT valued at \$26.09 million to 31,004.9MT valued at \$30.9 million. Despite the overall growth in exports to Asia, by 2002 the share, by value, of US sweet corn export going to Asia fell from 74.7% in 1991 to 70.8% in 2002. This was due mainly to the rapid growth of exports to CANMEX and the decline in exports to Europe and the ROW.

In 1991, the US exported 2068.96 MT of sweet corn to CANMEX, valued at \$1.43 million. This was approximately 4.1% of the total value of sweet corn exported by the US in that year. Exports to CANMEX grew and by 1999 sweet corn export to this



group stood at 5,892.75 MT with a value of \$3.51 million. After 1999 there was a surge as sweet corn exports to CANMEX increased to 13,286.48 MT valued at \$9.13 million in 2002. The group's share of US sweet corn export rose from 4.1% in 1991 to 20.9% in 2002 making it the second largest market next to Asia for the export of US corn.

The ROW, in 1991, received 3,958.28 MT of sweet corn exported by the US valued at \$3.55 million. By value, this represented a 10.2% share of US sweet corn exported in 1991 making the ROW the second largest market for US sweet corn at that time. Exports to ROW increased between 1991 and 1993, after which there was a three-year period of relatively rapid decline. There was slight growth between 1996 and 1998, after which the downward trend continued. By 2002, the ROW received 656.59MT valued at \$0.44 million. By value, the share of sweet corn exported from the US to the ROW fell to 1.0% in 2002.

In 1991 Europe was the third largest market receiving 9% of the total value of sweet corn exported by the US. This market showed a marked decline between 1991 and 1996 with US exports to it falling from 6,383.46MT of sweet corn, valued at \$3.13 million to 621.09 MT valued at \$0.53 million. There was a brief period of recovery when US exports of sweet corn to Europe grew to 3,925.47 MT valued at \$3.07 million in 1998; however, this was followed by another period of decline. By 2002, the export of sweet corn to Europe from the US had declined to 2,994.91MT valued at \$2.42 million. This represented 5.5% of the total value of US sweet corn exported at that time.

### **2.3.2 Import**

Imports of sweet corn to the US increased from 5,178 MT valued at \$4.03 million in 1991 to 13,238.73 MT of sweet corn valued at \$12.83 million in 2002 (see tables 2.3.1 and 2.3.2). This represented a 155.7% increase in volume and 218.3% increase in value. Sweet corn imports grew steadily between 1991 and 1998 with a marked spike in growth in 1994 when exports jumped to 15,013.35 MT valued at \$12.14 million from 8,853.35 MT valued at \$5.95 million in 1993. Despite the two consecutive years of decline, 1999 and 2000, the importation of corn maintained the overall upward trend as imports increased from 9,378.51MT valued at \$8.72 million to 13,237.73 MT valued at \$12.82 million between the years 2000 and 2002.

CANMEX was the major source of imported sweet corn for the US. In 1991 the US imported 5,118.39 MT valued at \$3.96 million (see tables 2.3.1 and 2.3.2), 98.2% of the total value of sweet corn imported by the US at that time. Similar to the overall growth pattern of total sweet corn imported by the US, imports from CANMEX grew steadily between 1991 and 1998 with a spike in growth in 1994, declined between 1998 and 2000, and then, between 2000 and 2002, continued to grow. In 2002, imports of sweet corn from this group stood at 11,980.89 MT valued at \$11.37 million, and this represented 88.65% of US sweet corn imports by value. The fall in CANMEX's share of the US sweet corn import market resulted from the growth in imports from Asia and the LAC.

In 1991, Asia was the only other recorded supplier of sweet corn to the US, providing 59.96MT valued at \$0.07 million. Imports from this group fluctuated between 1991 and 2002 with no obvious trend. There were periods, 1994 and 1997, when sweet corn imports from Asia peaked and, in both cases, they were followed by two years of decline. In 2002, imports of sweet corn from this group increased to 731.06 MT with a value of \$0.64 million, from 41.45 MT in 2001, valued at \$0.05 million. The 2002 import figure from Asia represented 5.0% of US sweet corn imports by value.

There was no record of the importation of sweet corn from the LAC in 1991 (see tables 2.3.1 and 2.3.2). However, in 1992 the US imported from this group 2.88 MT of sweet corn valued at \$2,581, 0.1% of total US import of sweet corn. The flow of sweet corn imports from this group peaked in 1994 then declined for three years. Between 1997 and 2002, imports from the LAC showed a definite upward trend, and by 2002, it supplied the US market with 386.72 MT valued at \$0.69 million. This represented 5.4% of the value of sweet corn imported by the US at that time.

**Table 2.3.1: : Volume of Sweet Corn Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	36.64	36.41	273.78	--	20.32	27.28	121.32	--	46.05	90.56	77.43
ASIA	28607.45	31436.82	35767.04	34914.26	33882.41	35884.59	42226.89	41180.67	40612.64	35975.87	30899.15	31004.90
Europe	6383.46	4976.46	2650.94	1666.94	1641.13	621.09	1783.73	3925.47	3483.40	2677.13	2519.35	2994.91
LAC	980.36	330.33	650.22	702.91	3041.39	720.42	1972.22	1038.57	446.68	994.21	590.45	721.25
CANMEX	2068.96	5504.56	4187.18	5941.84	5055.68	4151.59	6727.41	5849.27	5892.75	8935.28	9266.05	13286.48
ROW	3958.28	5130.89	6722.20	3516.77	2627.43	1005.19	1433.11	2883.47	2425.72	1889.06	529.20	656.59
<b>TOTAL</b>	<b>41998.50</b>	<b>47415.71</b>	<b>50013.98</b>	<b>47016.50</b>	<b>46248.04</b>	<b>42403.20</b>	<b>54170.62</b>	<b>54998.76</b>	<b>52861.19</b>	<b>50517.60</b>	<b>43894.75</b>	<b>48741.56</b>
US Imports												
AFRICA	--	--	--	977.19	--	--	--	--	--	--	--	--
ASIA	59.96	70.22	13.56	1605.50	31.17	8.50	226.23	55.67	9.50	23.69	41.45	731.06
Europe	--	--	--	--	--	--	1.13	--	--	--	33.95	140.06
LAC	--	2.88	147.72	915.82	260.68	216.52	25.06	96.93	83.06	253.06	193.61	386.72
CANMEX	5118.39	6923.51	8587.33	11281.75	8423.11	9843.25	11991.40	13149.59	10863.18	9101.77	9511.36	11980.89
ROW	--	--	104.74	233.10	--	--	--	401.50	--	--	62.72	--
<b>TOTAL</b>	<b>5178.35</b>	<b>6996.60</b>	<b>8853.35</b>	<b>15013.35</b>	<b>8714.96</b>	<b>10068.27</b>	<b>12243.82</b>	<b>13703.68</b>	<b>10955.74</b>	<b>9378.51</b>	<b>9843.09</b>	<b>13238.73</b>

-- Represents data not reported.

Source: United Nations COMTRADE database

**Table 2.3.2: Value of Sweet Corn Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports	--	--	--	--	--	--	--	--	--	--	--	--
AFRICA	--	0.05	0.05	0.24	--	0.02	0.04	0.06	--	0.03	0.07	0.07
ASIA	26.09	28.07	31.84	34.39	32.77	33.04	39.42	37.49	37.48	33.88	30.11	30.90
Europe	3.13	2.98	2.41	1.64	1.35	0.53	1.36	3.07	2.75	2.08	2.92	2.42
LAC	0.73	0.24	0.48	0.60	1.49	0.56	1.36	0.90	0.35	0.70	0.51	1
CANMEX	1.43	3.75	2.82	4.39	3.70	3.29	4.65	3.68	3.51	6.14	6.48	9.13
ROW	3.55	3.83	5.19	2.90	2.30	0.83	1.11	2.26	2.06	1.33	0.43	0.44
<b>TOTAL</b>	<b>34.94</b>	<b>38.92</b>	<b>42.79</b>	<b>44.16</b>	<b>41.61</b>	<b>38.27</b>	<b>47.94</b>	<b>47.45</b>	<b>46.14</b>	<b>44.17</b>	<b>40.53</b>	<b>43.67</b>
US Imports	--	--	--	--	--	--	--	--	--	--	--	--
AFRICA				0.93	--	--	--		--	--	--	--
ASIA	0.07	0.11	0.03	1.70	0.04	0.02	0.43	0.09	0.01	0.02	0.05	0.64
Europe	--	--	--	--	--	--	0.01	--	--	--	0.04	0.12
LAC	--	0.00	0.09	0.66	0.37	0.27	0.07	0.18	0.17	0.45	0.38	0.69
CANMEX	3.96	4.81	5.77	8.65	6.51	7.56	9.96	10.26	9.35	8.25	8.43	11.37
ROW	--	--	0.07	0.20	--	--	--	0.11	--	--	0.09	--
<b>TOTAL</b>	<b>4.03</b>	<b>4.93</b>	<b>5.95</b>	<b>12.14</b>	<b>6.92</b>	<b>7.86</b>	<b>10.47</b>	<b>10.65</b>	<b>9.53</b>	<b>8.72</b>	<b>8.99</b>	<b>12.82</b>

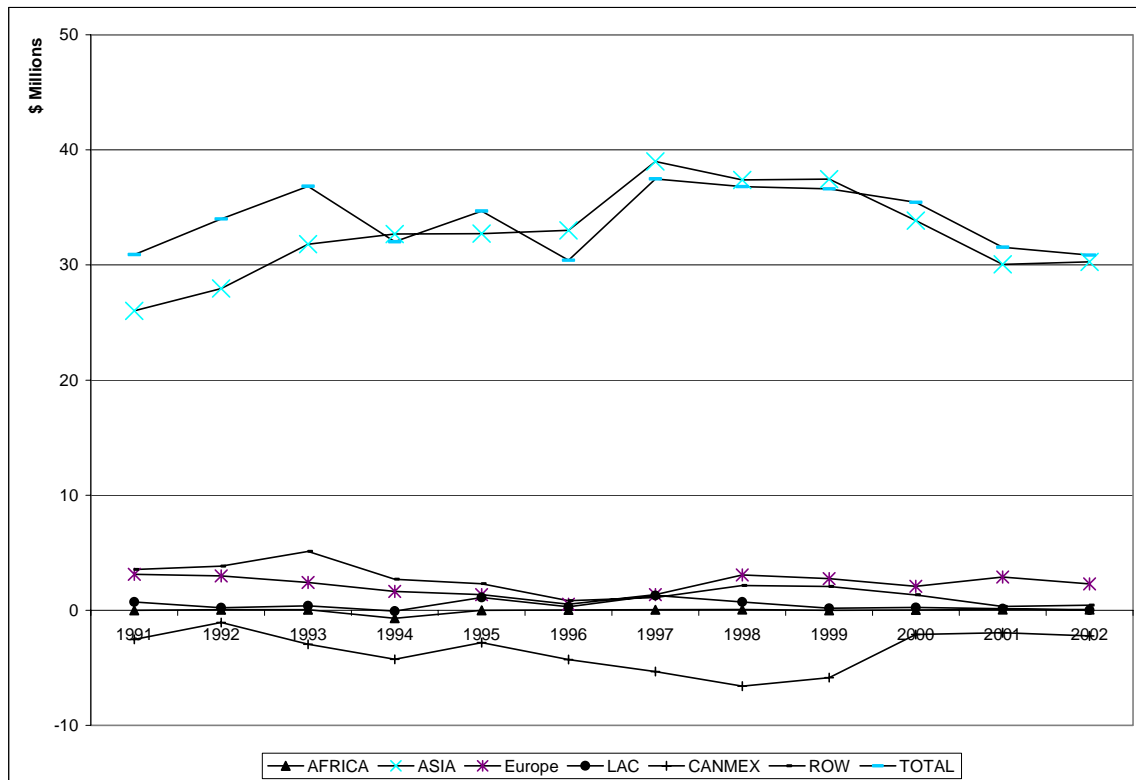
-- Represents data not reported.

Source: United Nations COMTRADE database

### 2.3.3 Trade Balance

The US has maintained a net trade surplus with respect to the trade of fresh sweet corn (see Figure 2.3.1). With respect to its trading partners, CANMEX was the only one with which the US showed a trade deficit. The net surplus grew from \$30.91 million in 1991 to \$36.84 million in 1993 and this was fueled by the growing trade surplus with Asia. Between 1993 and 1996, the overall trade surplus declined to \$30.42 million despite the continued increase of the trade surplus with Asia. This decline was due to the decreasing trade surplus with Europe and the ROW as exports to these groups declined. The net surplus increased in 1997 to \$37.47 million and then declined between 1997 and 2002 to \$30.85 million. This decline reflected a declining trade balance within the major market, Asia.

**Figure 2.3.1: Value of US' Sweet Corn Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.4 Cucumber

### 2.4.1 Exports

There was relatively little change in the volume and value of fresh cucumber exports from the US. In 1991 the US exported 48,236 MT valued at \$21.42 million, and in 2002 the US exported 41,921.16 MT valued at \$26.15 million. This represented a 22.1% growth in value and a 13.1% decline in volume. CANMEX was the major market for US fresh cucumber exports. In 1991 it received 47,637.08 MT valued at \$21.22 million, approximately 99.1% of the US exports at that time. Despite a slight increase in export volume between 1998 and 2002, the volume of cucumber exported by the US to CANMEX between 1991 and 2002 showed an overall decline in volume and an increase in value. By 2002, exports of fresh cucumber to CANMEX stood at 41,742.97 MT with a value of \$26.04 million.

Exports of US fresh cucumber to Asia in 1991 accounted for 0.7% of the total value of this commodity exported by the US at that time. With the exception of the

period 1995 and 1997, when exports of this commodity to Asia soared from 281.31 MT valued at \$0.10 million to 2,033.43 MT valued at \$0.71 million, there was an overall decline in exports to this market. Between 1991 and 2002, exports to Asia fell from 435.14 MT valued at \$0.14 million to 150.45 MT valued at \$0.08 million.

#### **2.4.2 Imports**

The US imported 173,673 MT of cucumbers in 1991 valued at \$89.84 million (see tables 2.4.1 and 2.4.2). Despite a 2.7% decline in volume and a 19.5% decline in value between 1996 and 1997 and a 9.1% decline in value between 1998 and 1999, the importation of cucumbers by the US displayed strong growth between 1991 and 2002. The US imported 394,107 MT of cucumber in 2002 valued at \$229.95 million, a 126.9% increase in volume and a 156.0% increase in value over the 1991 import figures. CANMEX, with a 95.5% share of the US import market for fresh cucumber, was the major supplier in 1991 followed by the LAC, which had approximately 4% of the market.

CANMEX supplied the US with 163,411.38 MT of fresh cucumbers in 1991 valued at \$85.81 million (see tables 2.4.1 and 2.4.2). Imports from this market grew steadily, and in 2002, it delivered to the US market 368,311.26 MT of cucumber valued at \$219.35. By value, this accounted for approximately 95.4% of total cucumber imports by the US at that time. The LAC was the next major supplier in 1991 supplying 10,086.93 MT valued at \$3.55 million. Imports from this group increased in 1992 then declined from 1992 to 1997. After 1997, there was an increase in imports, and by 2002 imports of cucumbers from the LAC reached 24,026.35MT valued at \$7.48 million. Despite the overall growth, the LAC's share of the US fresh cucumber import market fell to 3.3% in 2002. This was due to growing importation of fresh cucumbers from Europe. This group showed a steady growth, increasing their supply of cucumbers to the US from 148.46 MT valued at \$0.37 million in 1991 to 1,710.19 MT valued at \$3.05 million in 2002. With this growth, the market share held by Europe increased from 0.4% in 1991 to 1.3% in 2002.

**Table 2.4.1: Volume of Cucumber Exported and Imported by the US, 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	435.14	648.10	372.56	198.92	281.31	868.09	2033.43	24.06	268.24	113.89	12.37	150.45
EUROPE	127.52	--	30.24	22.98	--	--	--	4.44	3.00	--	105.96	27.75
LAC	36.36	37.37	25.38	13.50	--	16.50	--	10.81		8.19	--	--
CANMEX	47637.08	48061.92	47528.50	44377.28	44076.74	42596.26	41743.55	34765.07	35144.29	37206.53	41446.63	41742.97
ROW	--	--	--	42.34	7.56	75.49	--	9.31	--	--	--	--
<b>TOTAL</b>	<b>48236.10</b>	<b>48747.39</b>	<b>47956.68</b>	<b>44655.02</b>	<b>44403.36</b>	<b>43556.33</b>	<b>43776.97</b>	<b>34813.69</b>	<b>35415.53</b>	<b>37328.60</b>	<b>41564.97</b>	<b>41921.16</b>
US Imports												
AFRICA	--	--	--	--	14.81	--	--	--	--	--	--	--
ASIA	--	38.04	--	--	--	--	--	28.14	40.80	0.25	19.03	57.26
EUROPE	148.46	331.73	736.77	486.51	397.00	703.37	603.40	688.18	1156.80	1954.81	1654.38	1710.19
LAC	10086.92	20479.52	18975.54	16220.93	14898.69	10285.58	5813.56	6597.64	6179.89	9256.65	16455.74	24026.35
CANMEX	163411.38	175277.13	208109.56	232363.01	244159.22	300311.51	296378.05	320770.57	332639.32	334849.22	350003.56	368311.26
ROW	25.74	30.12	0.66	5.00	5.38	1.94	--	--	--	--	3.75	2.44
<b>TOTAL</b>	<b>173672.50</b>	<b>196156.54</b>	<b>227822.53</b>	<b>249075.46</b>	<b>259475.10</b>	<b>311302.40</b>	<b>302795.01</b>	<b>328084.54</b>	<b>340016.80</b>	<b>346060.93</b>	<b>368136.45</b>	<b>394107.49</b>

-- Represents data not reported.

Source: United Nations COMTRADE database

**Table 2.4.2: Value of Cucumber Exported and Imported by the US, 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	0.14	0.23	0.12	0.13	0.10	0.31	0.71	0.04	0.09	0.07	0.01	0.08
EUROPE	0.05	--	0.01	0.01	--	--	--	0.00	0.00	--	0.04	0.03
LAC	0.01	0.02	0.01	0.00	--	0.01	--	0.00	--	0.00	--	--
CANMEX	21.22	21.05	23.44	21.81	22.86	23.00	21.98	21.86	20.88	22.95	26.09	26.04
ROW	--	--	--	0.01	0.00	0.03	--	0.01	--	--	--	--
<b>TOTAL</b>	<b>21.42</b>	<b>21.30</b>	<b>23.58</b>	<b>21.96</b>	<b>22.97</b>	<b>23.34</b>	<b>22.68</b>	<b>21.93</b>	<b>20.97</b>	<b>23.02</b>	<b>26.14</b>	<b>26.15</b>
US Imports												
AFRICA	--	--	--	--	0.01	--	--	--	--	--	--	--
ASIA	--	0.02	--	--	--	--	--	0.02	0.03	0.00	0.02	0.06
EUROPE	0.37	0.65	1.71	1.28	1.10	1.71	1.38	1.64	2.95	3.71	3.16	3.05
LAC	3.55	7.73	5.92	4.92	4.18	3.77	2.39	2.68	2.33	3.49	5.28	7.48
CANMEX	85.81	78.45	96.23	119.43	124.50	139.08	112.58	169.76	152.88	186.83	209.38	219.35
ROW	0.11	0.04	0.00	0.00	0.00	0.01	--	--	--	--	0.00	0.01
<b>TOTAL</b>	<b>89.84</b>	<b>86.90</b>	<b>103.87</b>	<b>125.63</b>	<b>129.79</b>	<b>144.57</b>	<b>116.35</b>	<b>174.11</b>	<b>158.19</b>	<b>194.04</b>	<b>217.85</b>	<b>229.95</b>

-- Represents data not reported.

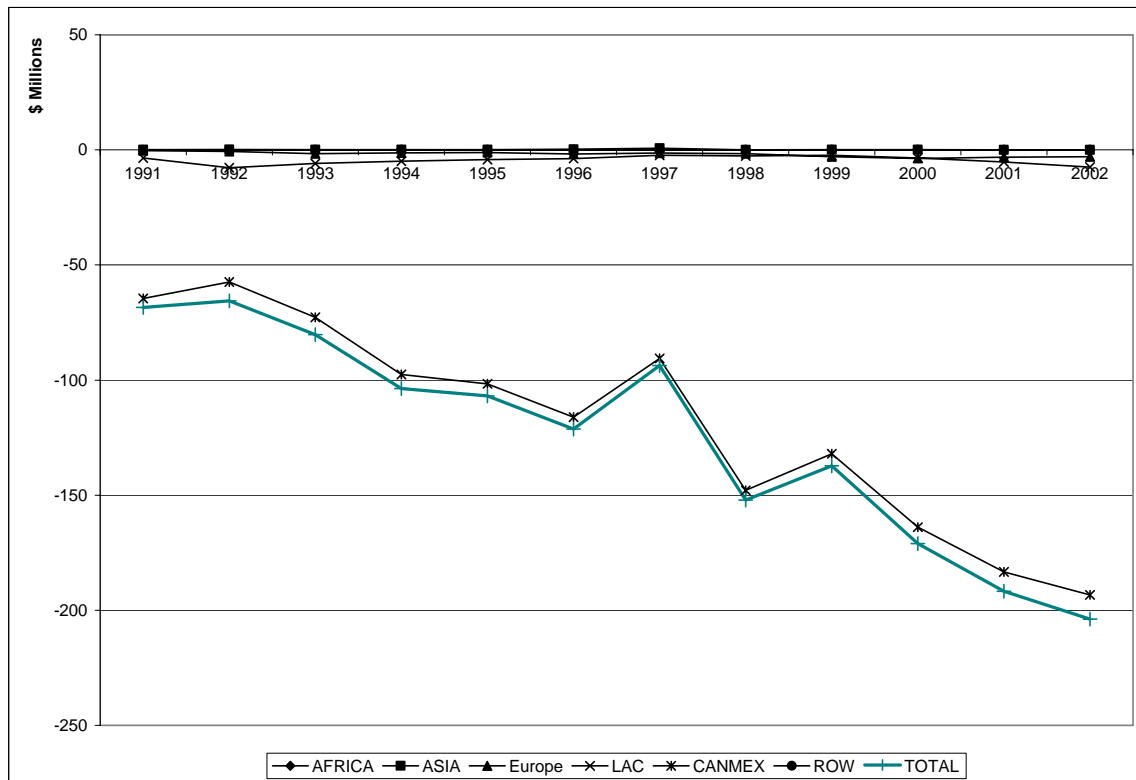
Source: United Nations COMTRADE database

### 2.4.3 Trade Balance

With respect to fresh cucumbers, the US had a trade deficit with all its trading partners, and with very little change in exports and increasing imports, the US showed an increasing net trade deficit with respect to the trade of fresh cucumbers (Figure 2.4.1). In 1991, the net trade deficit was \$68.42 million, and by 2002, it had increased to \$203.8 million. This increasing deficit reflected the increasing trade deficit with the CANMEX group.



**Figure 2.4.1: Value of US' Cucumber Trade Balance with Trading Groups, 1991 - 2002**



-- Represents data not reported.

Source: United Nations COMTRADE database

## 2.5 Eggplant

### 2.5.1 Exports

The export of eggplant by the US displayed a moderate upward trend, increasing from 7,414 MT valued at \$5.61 million in 1991 to 11,956.51 MT valued at \$8.67 million in 2002. This represented a 61.3% growth in volume and a 54.5% growth in value with very little fluctuation in growth. This pattern of growth reflected the growth pattern of exports to the CANMEX. This group was the major destination market in 1991 receiving from the US 7,376.11 MT of eggplants valued at \$5.52 million, 98.4% of the total value of eggplants exported by the US at that time. The export of eggplants to CANMEX increased steadily and by 2002 stood at 11,673.43 MT valued at \$8.35 million, 96.3% of the total value of eggplants exported by the US at that time. The fall in market share was due to increased eggplant exports, particularly to Asia.

A consistent flow of eggplants to Asia from the US did not occur until 1997. Prior to that, export of eggplant from the US to this group was recorded in 1991, 1992 and 1995. A significant change in the export of eggplant to Asia occurred between 2001 and 2002 when it jumped from 23.76 MT valued at \$0.03million to 246.65 MT valued at \$0.22 million. In 1991, Asia received 0.4% of the total value of eggplant exported by the US. By 2002, with the jump in exports, the share of US exports of eggplant to Asia increased to 2.5%.

### **2.5.2 Imports**

In 1991 the US imported 19,873 MT of eggplants valued at \$15.65 million. Over the twelve-year period, despite the decrease in volume in 1992, 1997, and 1999, and in value in 1992, 1993, 1996, and 1999, imports exhibited an upward trend. By 2002, imports stood at 40,522.67 MT valued at \$33.67 million. This represented a 103.9% growth in volume and a 115.1% growth in value over the 1991 figures. In 1991, CANMEX had the majority share (99.5%), by value, of US import market for fresh eggplants. Imports from CANMEX declined between 1991 and 1993 and then trended upwards. By 2002 imports from this group grew to 36,910.11 MT valued at \$28.5 million. Despite this growth, its share of the market dipped to 84.7%. This fall in market share resulted from increased importation of this commodity from Europe and the LAC.

In 1991 the importation of fresh eggplants from the LAC amounted to 110.35 MT valued at \$0.06 million which accounted for 0.4% of the total value of the US import market for this commodity. Imports from the LAC showed a moderate increase to 269.70 MT valued at \$0.20 million between 1991 and 1994. After this period, imports showed a strong upward trend, and by 2002, LAC had an approximate 4.5% share of the US import market for fresh eggplants. At that point the US imported 2,683.24 MT valued at \$1.52 million from the LAC.

In 1991, there was no recorded importation of fresh eggplants from Europe. In 1992 the US imported 1.75 MT valued at \$0.01 million, an approximate 0.1% share of the US import market for fresh eggplants, and this increased steadily between 1991 and 1999. Between 1999 and 2002, there was a surge in imports of eggplants from Europe. By 2002, this group's market share, by value, had grown to 10.7% by supplying the US

import market with 905.62 MT of fresh eggplants valued at \$3.60 million (see Tables 2.5.1 and 2.5.2).

**Table 2.5.1: Volume of Eggplant Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	59.25	8.19	--	--	--	--	--	--	--	--	--
ASIA	16.40	13.06	--	--	13.31	--	18.95	34.51	33.68	20.88	23.76	246.65
Europe	20.12	179.53	9.31	20.69	27.16	3.67	--	11.44	325.22	5.25	19.69	10.89
LAC	1.38	0.00	0.00	11.31	455.74	--	--	--	5.13	--	--	24.53
CANMEX	7376.11	8736.03	8816.13	8861.43	9473.95	10033.59	10844.46	10037.96	10679.07	11478.26	11771.23	11673.43
ROW	--	77.32	9.00	5.44	34.00	11.13	--	11.76	9.31	30.36	1.94	1.00
<b>TOTAL</b>	<b>7414.01</b>	<b>9065.19</b>	<b>8842.63</b>	<b>8898.87</b>	<b>10004.16</b>	<b>10048.38</b>	<b>10863.41</b>	<b>10095.67</b>	<b>11052.41</b>	<b>11534.74</b>	<b>11816.62</b>	<b>11956.51</b>
US Imports												
AFRICA	1.63	5.19	0.00	3.50	7.75	4.00	--	--	--	--	--	--
ASIA	1.81	0.88	6.02	2.00	1.81	1.75	0.43	6.19	0.00	2.63	0.00	23.70
Europe	0.00	1.75	7.44	6.06	17.71	15.94	23.96	78.41	92.53	343.16	646.44	905.62
LAC	110.35	140.43	225.41	269.70	771.69	1001.50	1220.01	1701.48	1484.46	2515.74	2667.30	2683.24
CANMEX	19755.88	16709.57	17942.28	21020.46	24125.93	29780.20	28691.80	36292.59	30849.87	36055.95	37943.33	36910.11
ROW	4.19	--	--	--	21.18	--	--	--	--	--	0.89	--
<b>TOTAL</b>	<b>19873.86</b>	<b>16857.81</b>	<b>18181.15</b>	<b>21301.72</b>	<b>24946.07</b>	<b>30803.38</b>	<b>29936.20</b>	<b>38078.66</b>	<b>32426.86</b>	<b>38917.47</b>	<b>41257.95</b>	<b>40522.67</b>

-- Represents data not reported.

Source: United Nations COMTRADE database

**Table 2.5.2: Value of Eggplant Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	0.10	0.02	--	--	--	--	--	--	--	--	--
ASIA	0.06	0.02	--	--	0.01	--	0.03	0.01	0.10	0.06	0.03	0.22
Europe	0.02	0.28	0.02	0.02	0.05	0.01	--	0.03	0.31	0.00	0.07	0.05
LAC	0.00	--	--	0.01	0.12	--	--	--	0.01	--	--	0.04
CANMEX	5.52	6.39	6.82	6.69	7.43	7.12	7.78	7.94	7.60	7.96	8.74	8.35
ROW	--	0.22	0.01	0.00	0.05	0.01	--	0.03	0.02	0.04	0.00	0.00
<b>TOTAL</b>	<b>5.61</b>	<b>7.01</b>	<b>6.87</b>	<b>6.73</b>	<b>7.67</b>	<b>7.14</b>	<b>7.81</b>	<b>8.01</b>	<b>8.05</b>	<b>8.06</b>	<b>8.83</b>	<b>8.67</b>
US Imports												
AFRICA	0.00	0.01	--	0.00	0.01	0.01	--	--	--	--	--	--
ASIA	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.02	--	0.01	--	0.04
Europe	--	0.01	0.02	0.03	0.06	0.06	0.08	0.28	0.31	1.16	2.43	3.60
LAC	0.06	0.09	0.16	0.20	0.61	0.72	0.95	1.30	1.00	1.65	1.64	1.52
CANMEX	15.58	13.43	12.96	21.58	22.18	19.07	22.38	32.19	23.40	24.73	29.64	28.50
ROW	0.00	--	--	--	0.02	--	--	--	--	--	0.00	--
<b>TOTAL</b>	<b>15.65</b>	<b>13.54</b>	<b>13.16</b>	<b>21.82</b>	<b>22.88</b>	<b>19.87</b>	<b>23.42</b>	<b>33.79</b>	<b>24.71</b>	<b>27.55</b>	<b>33.71</b>	<b>33.66</b>

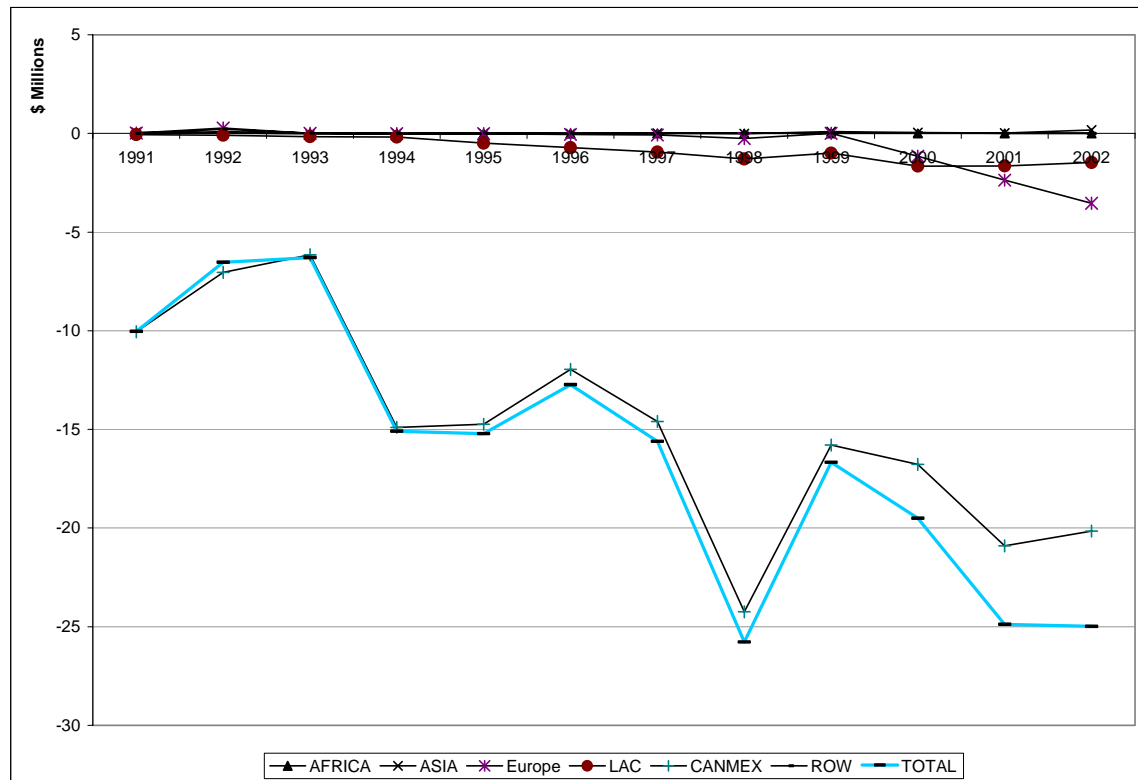
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 2.5.3 Trade Balance

The US had an overall trade deficit with respect to the trade of eggplant. This deficit showed an overall increase between 1991 and 2002 moving from \$10.04 million to \$24.99 million. The majority of this trade deficit can be attributed to the trade deficit with CANMEX as the growth in imports from this group surpassed the growth of exports to the group. Increasing imports and declining exports was also the cause for the increasing deficit with the LAC and Europe (see Figure 2.5.1).

**Figure 2.5.1: Value of US' Eggplant Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.6 Peppers

### 2.6.1 Export

The US exported 88,522.34 MT of peppers in 1991, valued at \$51.44 million (see Tables 2.6.1 and 2.6.2). Between 1992 and 1995, the volume of peppers trended downwards while the value had an upward trend. In 1995 the US exported 58,571.69 MT of peppers valued at \$56.78 million. Export of peppers increased steadily from that point, and by 2002 US export of this commodity stood at 86,969.12 MT valued at \$90.66 million. CANMEX, which received 99.2% of the total value of peppers exported by the US in 1991, was the main market. Despite the growth of exports to CANMEX, by 2002 its share of US pepper exports received fell to approximately 95.5% due to growth of exports to the LAC, Europe and Asia.

Asia and Europe respectively, received 0.3% and 0.4% of the total value of peppers exported by the US in 1991, and between then and 2000, the markets showed very little growth. Pepper exports to Asia did not show any marked growth between

1991 and 2000. Between 2000 and 2002, its share of the US export market increased to 1.4% as US pepper exports received by this market grew from 172.74 MT valued at \$0.22 million, to 879.66 MT valued at \$0.94 million, peaking in 2001 at 848.11 MT valued at \$1.31 million (see Tables 2.6.1 and 2.6.2). US export of pepper to Europe grew from 200.52 MT in 2000 valued at \$0.27 million to 891.63 MT in 2002 valued at \$1.32 million. This increased its share of the total value of pepper exports by the US to approximately 1.5%.

There was no record of pepper exportation by the US to the LAC until 1993. Between 1993 and 2001, pepper exports to this market displayed a general decline. In 2002, there was a surge as pepper exported by the US to this market moved from 68.86 MT in 2001, valued at \$0.07 million, to 1,783.74 MT valued at \$1.63 million, approximately 1.8% of the total value of peppers exported by the US at that time.

### **2.6.2 Import**

The importation of fresh peppers grew between 1991 and 2001. In 1991 the US imported 134,643.78 MT of fresh peppers valued at \$165.73 million, and by 2002, the volume imported grew by 198.0% to 401,195.42 MT. While the volume grew steadily, the value declined, relative to the value of the previous year, in 1996, 1999 and 2002 (see Tables 2.6.1 and 2.6.2). Despite these dips, by 2002 imports attained a value of \$528.80 million, a 219.1% increase in value over the 1991 import level. The major supplier in 1991 was the CANMEX group with a 75.4% share, by value, of the import market. Importation of peppers from this group grew steadily from 124,766.56 MT in 1991 valued at \$124.89 million to 364,231.59 MT in 2002 valued at \$388.41 million.

Europe was the next major supplier with a 24.0% share of the US import market for peppers. The importation of peppers from Europe grew at a relatively steady pace increasing from 9,120.65 MT in 1991 valued at \$39.76 million to 27,926.97 MT valued at \$105.59 million in 2002 (see Tables 2.6.1 and 2.6.2). Despite the increase in imports from Europe and CANMEX, by 2002 their share of the pepper import market of the US fell to 20% and 73.5% respectively. This slight drop in market share experienced by Europe and CANMEX was due to the rise in pepper imports from Asia.

In 1991, the US imported 310.96 MT of peppers from Asia at a value of \$0.46 million, approximately 0.3% of the total value of peppers imported by the US. Between

1991 and 1994, there was slight overall decline in the volume and an increase in the value of pepper imports from this group. After 1994, pepper imports from Asia grew rapidly, moving from MT 230.97 in 1994 with a value of \$0.95 million to 6,618.61 MT in 2002 valued at \$30.75 million. This resulted in its market share, based on value, of the US import market for peppers increasing from 0.3% to 5.8%



**Table 2.6.1: Volume of Peppers Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	15.31	--	--	--	--	--	--	--	12.44	--	6.19	--
ASIA	246.49	305.55	179.81	163.21	311.34	446.37	347.20	132.95	124.69	172.74	848.11	679.66
Europe	345.11	464.02	414.99	339.83	73.27	80.52	78.61	267.10	228.00	200.52	397.41	891.63
LAC	--	--	809.87	297.25	193.34	590.38	189.48	73.97	56.35	21.04	68.86	1783.74
CANMEX	87776.16	99048.63	66308.41	61073.50	57973.79	69218.96	71087.43	68230.53	74121.38	81021.52	85693.94	83495.47
ROW	139.27	142.28	190.84	108.59	19.96	27.30	48.29	141.85	21.56	0.00	96.90	118.62
<b>TOTAL</b>	<b>88522.34</b>	<b>99960.48</b>	<b>67903.92</b>	<b>61982.38</b>	<b>58571.69</b>	<b>70363.54</b>	<b>71751.01</b>	<b>68846.41</b>	<b>74564.42</b>	<b>81415.82</b>	<b>87111.39</b>	<b>86969.12</b>
US Imports												
AFRICA	13.75	3.81	5.44	1.63	61.45	3.63	--	1.94	--	0.63	--	--
ASIA	310.96	51.75	64.73	230.97	1129.56	1445.35	2802.56	3379.44	4247.35	5130.01	6905.10	6618.61
Europe	9120.65	11053.37	17882.16	17623.75	18270.03	18779.10	18635.57	21555.81	21843.12	22643.11	23950.77	27926.97
LAC	427.04	449.08	678.19	532.02	1014.83	1124.14	2009.62	3122.93	2337.89	1427.79	2455.22	2388.31
CANMEX	124766.56	115011.50	138831.12	148704.94	210913.54	255959.40	267106.07	301256.96	313618.86	317409.54	327707.40	364231.59
ROW	4.81	8.50	16.48	--	--	0.43	--	--	27.54	42.93	--	29.93
<b>TOTAL</b>	<b>134643.78</b>	<b>126578.01</b>	<b>157478.13</b>	<b>167093.30</b>	<b>231389.39</b>	<b>277312.03</b>	<b>290553.82</b>	<b>329317.06</b>	<b>342074.75</b>	<b>346653.98</b>	<b>361018.50</b>	<b>401195.42</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 2.6.2: Value of Peppers Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	0.01	--	--	--	--	--	--	--	0.05	--	0.00	--
ASIA	0.13	0.16	0.15	0.24	0.46	0.56	0.31	0.20	0.18	0.22	1.31	0.94
Europe	0.19	0.26	0.46	0.49	0.07	0.13	0.13	0.50	0.39	0.27	0.51	1.32
LAC	--	--	0.66	0.37	0.32	0.58	0.25	0.13	0.08	0.05	0.07	1.63
CANMEX	51.03	54.78	56.96	55.09	55.89	56.99	65.78	68.76	68.43	79.93	88.88	86.56
ROW	0.09	0.10	0.14	0.16	0.03	0.03	0.06	0.15	0.05	--	0.16	0.21
<b>TOTAL</b>	<b>51.44</b>	<b>55.31</b>	<b>58.37</b>	<b>56.36</b>	<b>56.78</b>	<b>58.28</b>	<b>66.53</b>	<b>69.74</b>	<b>69.18</b>	<b>80.47</b>	<b>90.95</b>	<b>90.66</b>
US Imports												
AFRICA	0.03	0.01	0.04	0.01	0.05	0.01	--	0.01	--	0.00	--	--
ASIA	0.46	0.09	0.13	0.95	4.96	7.16	13.00	16.05	18.60	20.27	27.32	30.75
Europe	39.76	47.15	66.50	73.16	80.23	74.89	72.38	91.60	84.12	88.68	88.12	105.59
LAC	0.56	0.66	0.71	0.47	1.83	1.92	2.57	2.53	2.52	2.98	4.58	3.98
CANMEX	124.89	125.63	150.90	159.68	199.20	182.88	219.05	307.88	282.25	401.73	447.71	388.41
ROW	0.03	0.03	0.01	--	--	0.00	--	--	0.03	0.03	--	0.07
<b>TOTAL</b>	<b>165.73</b>	<b>173.58</b>	<b>218.28</b>	<b>234.26</b>	<b>286.27</b>	<b>266.88</b>	<b>307.00</b>	<b>418.06</b>	<b>387.52</b>	<b>513.70</b>	<b>567.73</b>	<b>528.80</b>

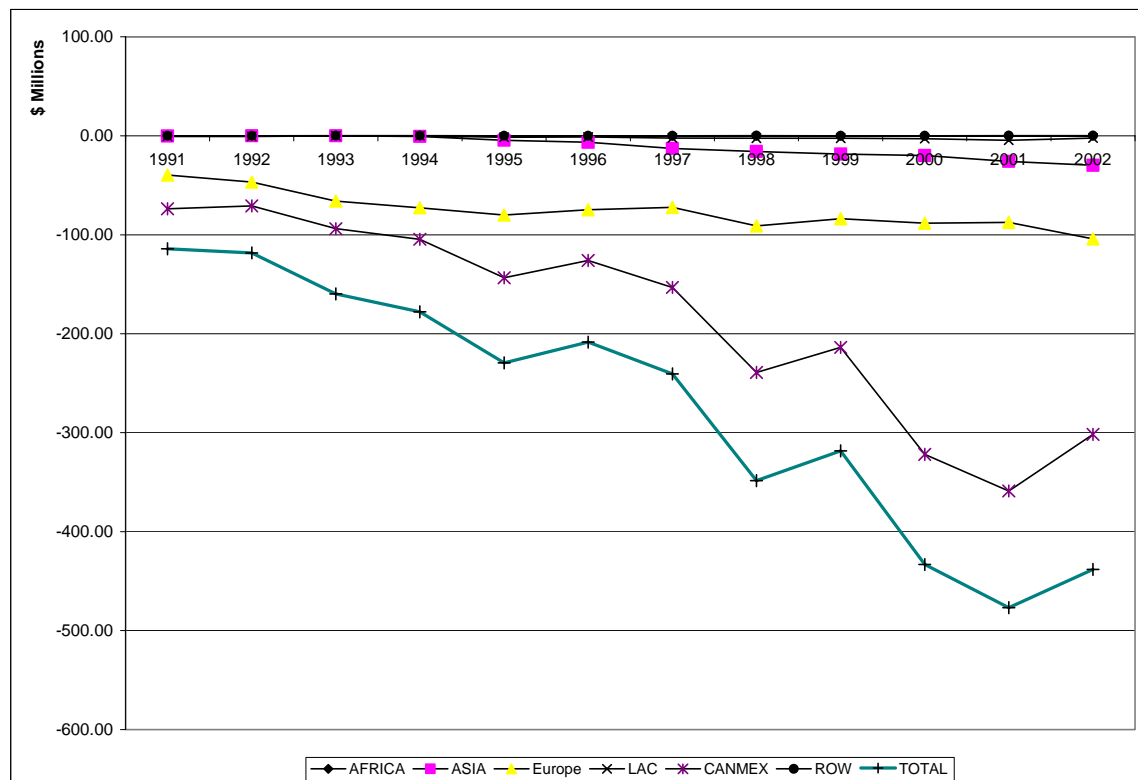
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 2.6.3 Trade Balance

With the exception of Africa and the ROW, the US had an increasing trade deficit with its trading partners and, therefore, maintained an overall increasing net deficit with respect to the trade of fresh peppers. In 1991, the net trade balance was \$114.29 million, and by 2002, it had increased to \$438.14 million. The increasing net deficit was due to increasing imports from CANMEX, Europe and Asia. The largest deficit was with CANMEX, which in 2002, stood at \$301.85 million, increasing from a \$73.85 million trade deficit in 1991. In 1991, trade with Europe resulted in a \$39.57 million trade deficit that grew to \$104.27 million by 2002. The deficit with Asia, the third largest, grew from \$0.34 million in 1991 to \$29.81 million in 2002 (see Figure 2.6.1).

**Figure 2.6.1: Value of US' Pepper Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.7 Potato

### 2.7.1 Export

The export of potatoes by the US showed a relatively strong pattern of growth. In 1991 156,267.86 MT of potatoes valued at \$68.80 million was exported, and by 2002 this had grown to 315,105.76 MT valued at 122.71 million (see Tables 2.7.1 and 2.7.2). The main market for this export was CANMEX. In 1991, this group received 153,349.64 MT of potatoes from the US valued at \$67.52 million. This was 98.2% of the total value of potatoes exported by the US at that time. By 2002 the exportation of potatoes to CANMEX grew to 299,672.82 MT valued at \$115.13 million. Despite the growth, the share, by value, of potato exported by the US to CANMEX fell from 98.2% to 93.8%. This fall was due to the growth of exports to Asia and to a lesser extent to the LAC.

In 1991, US exported 746.95 MT of potatoes to Asia with a value of \$0.35 million. Exports to this group showed strong growth, peaking at 17,405.14 MT valued at \$6.02 million in 2001, and then falling to 8,950.32 MT valued at \$4.18 million in 2002.

Despite the fall in the export of potatoes from the US to Asia between 2001 and 2002, the share of exports, based on value, received by that group increased to 3.4% compared to the 0.5% share that it received in 1991.

The US exported 2,062.21 MT of potatoes to the LAC in 1991 valued at \$0.87 million. This represented approximately 1.3% of the total value of potato exports by the US in that year. Between 1991 and 1993, there was very little change in the volume and value of potato export to this group from the US. After 1993, exports to this group grew and peaked in 1998 at 11,328.41 MT valued at \$3.48 million (see Tables 2.7.1 and 2.7.2). The export level then fell to 4,198.12 MT valued at \$1.25 million in 2000, and then increased to 5,509.54 MT valued at \$2.66 million. Based on value, over the period 1991 to 2002, the share of US exports of potatoes received by the LAC grew from 1% to 2%.

### **2.7.2 Import**

The importation of potatoes by the US displayed an upward trend between 1991 and 2002. This growth, however, was not as smooth as the growth in exports. In 1991 the US imported 279,509.54 MT valued at \$54.57 million. Imports fell in 1992 and then increased to 323,228.38 MT valued at \$63.63 million in 1993. Between 1993 and 1998, import displayed an overall upward trend increasing to 481,272.51 MT valued at \$106.87 million with a period of decline between 1996 and 1997. By 2001 imports declined to 304,422.43 MT valued at \$73.94 million and then climbed to 400,577.60 MT valued at \$112.98 million in 2002 (see Tables 2.7.1 and 2.7.2).

CANMEX was the main supplier of potatoes imported by the US market. In 1991 the US imported 279,466.94 MT of potatoes valued at \$54.54 million from this group. This represented approximately 100% of the total value of potato imported by the US in that year. Between 1991 and 2002, CANMEX continued to dominate the potato import market of the US.

**Table 2.7.1: Volume of Potatoes Exported and Imported by the US, 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	39.08	20.56	40.23	--	--	--	63.50	--	0.91	--	91.69	--
ASIA	746.95	1144.28	2480.06	3641.10	5412.45	7606.93	7062.95	10402.14	11666.35	14005.10	17405.14	8950.32
Europe	64.11	785.21	74.48	120.46	935.38	1285.23	1513.21	2562.70	1166.30	2139.29	1482.48	632.75
LAC	2062.21	2030.47	2112.81	2541.83	7831.98	5734.24	7559.22	11328.41	7858.58	4198.12	4927.98	5509.54
CANMEX	153349.64	239764.71	238437.50	284355.06	247400.36	263209.30	293576.13	277564.12	273213.49	303941.76	264995.48	299672.82
ROW	5.88	259.77	1534.54	6456.56	3808.74		4746.62	2180.76	179.73	194.55	2620.40	340.32
<b>TOTAL</b>	<b>156267.86</b>	<b>244004.98</b>	<b>244679.63</b>	<b>297115.01</b>	<b>265388.91</b>	<b>282201.15</b>	<b>314521.63</b>	<b>304038.11</b>	<b>294085.34</b>	<b>324478.82</b>	<b>291523.17</b>	<b>315105.76</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	0.31	41.25	162.72	41.64	26.88	43.64	37.48	57.27	26.29	28.53	42.05	44.95
Europe	--	2.38	--	--	--	--	79.84	18.45	--	4.07	--	--
LAC	42.28	122.90	26.03	33.44	40.30	19.50	24.25	79.85	10.88	31.04	257.74	130.21
CANMEX	279466.94	181989.63	323039.65	291498.75	310583.94	447390.50	346775.01	480960.67	418824.51	365286.69	304109.70	400402.43
ROW	--	--	--	--	--	--	--	156.24	--	--	12.94	--
<b>TOTAL</b>	<b>279509.54</b>	<b>182156.16</b>	<b>323228.38</b>	<b>291573.82</b>	<b>310651.10</b>	<b>447453.63</b>	<b>346916.58</b>	<b>481272.51</b>	<b>418861.66</b>	<b>365350.34</b>	<b>304422.43</b>	<b>400577.60</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 2.7.2: Value of Potatoes Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	0.03	0.02	0.08	--	--	--	0.03	--	0.01	--	0.04	--
ASIA	0.35	0.38	1.02	1.28	2.09	2.61	2.07	3.41	3.50	4.34	6.02	4.18
Europe	0.03	0.29	0.04	0.04	0.45	0.50	0.86	1.49	1.16	1.95	0.81	0.62
LAC	0.87	0.90	0.87	1.22	2.13	2.01	2.28	3.48	2.49	1.25	1.80	2.66
CANMEX	67.52	67.09	76.37	85.14	77.28	78.72	79.34	84.06	85.16	85.75	80.97	115.13
ROW	0.00	0.07	0.62	2.31	1.22	1.28	1.32	0.53	0.09	0.09	0.86	0.12
<b>TOTAL</b>	<b>68.80</b>	<b>68.75</b>	<b>79.00</b>	<b>89.99</b>	<b>83.17</b>	<b>85.13</b>	<b>85.91</b>	<b>92.97</b>	<b>92.41</b>	<b>93.39</b>	<b>90.49</b>	<b>122.71</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	0.00	0.03	0.12	0.03	0.03	0.04	0.07	0.09	0.12	0.13	0.17	0.24
Europe	--	0.01	--	--	--	--	0.10	0.02	--	0.02	--	--
LAC	0.02	0.12	0.01	0.03	0.06	0.02	0.07	0.07	0.01	0.03	0.17	0.08
CANMEX	54.54	31.73	63.49	70.44	61.62	97.54	71.83	106.48	98.12	85.69	73.58	112.66
ROW	--	--	--	--	--	--	--	0.22	--	--	0.03	--
<b>TOTAL</b>	<b>54.57</b>	<b>31.90</b>	<b>63.63</b>	<b>70.50</b>	<b>61.71</b>	<b>97.60</b>	<b>72.07</b>	<b>106.87</b>	<b>98.25</b>	<b>85.86</b>	<b>73.94</b>	<b>112.98</b>

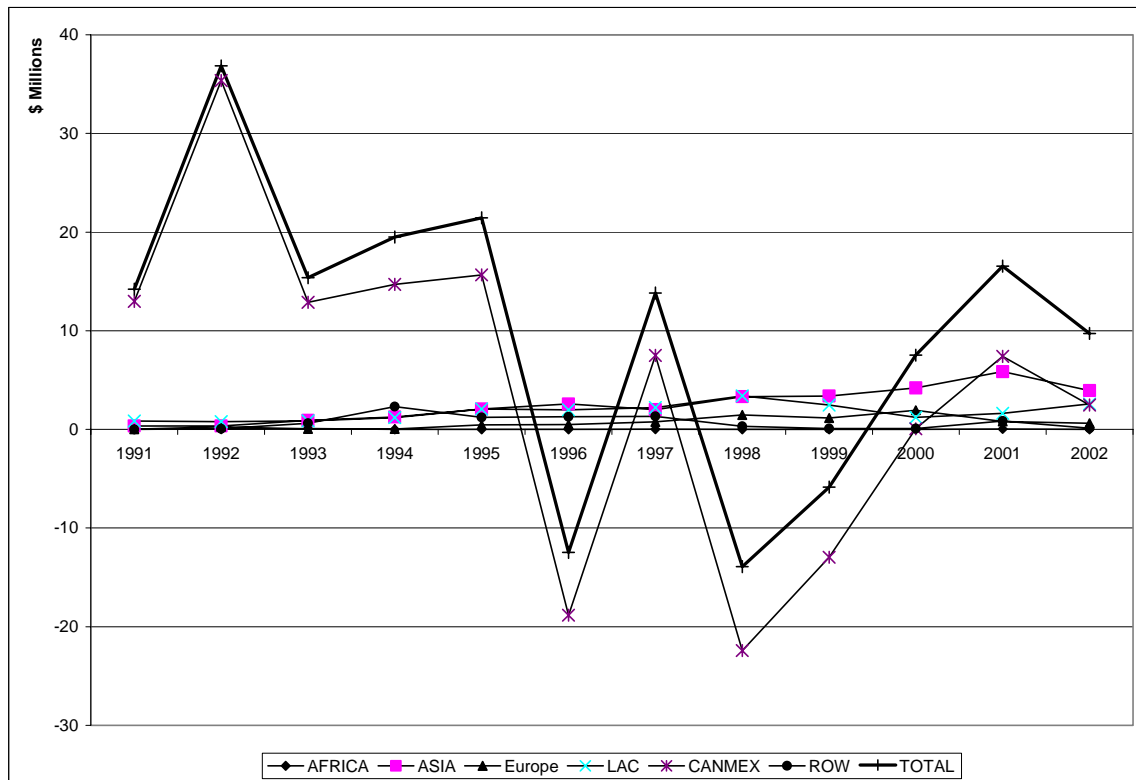
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 2.7.3 Trade Balance

With the exception of CANMEX, the US maintained a trade surplus with its trading partners between 1991 and 2002. Changes in the US fresh potato trade balance reflected changes in the trade balance with CANMEX (see Figure 2.7.1). In 1991, the net trade balance stood at a surplus of \$14.23 million. A sharp drop in imports between 1991 and 1992 along with the increase in exports enabled the US to increase the trade surplus. However, between 1992 and 1998 the US trade balance fell to a trade deficit of \$13.90 million. During this period, there was a brief trade surplus in 1997 corresponding to a fall in imports from CANMEX. After 1998, with declining imports from CANMEX, the net trade balance with respect to potatoes grew to a surplus of \$16.56 million in 2001. By 2002, the surplus declined again to \$9.73 million due to increased imports from CANMEX.

**Figure 2.7.1: Value of US Potato Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.8 Radish

### 2.8.1 Export

In 1991 the US exported 16,720.64 MT of radishes valued at \$9.96 million, and this declined to 13,344.75MT valued at \$8.07 million by 1994 (see Tables 2.8.1 and 2.8.2). After 1994 the export of radishes displayed an upward trend with a slight fall between 1997 and 1998 when exports fell from 15,923.81 MT valued at \$9.55 million to 13,516.65 MT valued at \$8.91 million. By 2002, US export of radishes expanded to 15,832.03 MT valued at \$9.84 million. In 1991, 79.2% of the export by value went to CANMEX making it the major market for fresh radishes from the US at that time. There was relatively very little expansion of exports to this market. In 1991 the US exported 12,536.21 MT of radishes to CANMEX valued at \$7.89 million. By 2002 exports barely moved to 14,703.39 MT valued at \$8.94 million. Despite this weak growth, CANMEX's share of the total value of radish exports by the US grew to 90.8% by 2002. This growth in share was due to the decline in exports to Europe.

In 1991, Europe, receiving 15.3% of the total value of US radish exports, was the second largest market. Between 1991 and 1994 there was a sharp decline in exports of radishes to Europe from the US. Exports fell from 3,068.44 MT valued at \$1.52 million to 264.24 MT valued at \$0.13 million (see Tables 2.8.1 and 2.8.2). Despite the overall growth after 1994, by 2002 US exports of radish to this group attained a level of only 603.31 MT valued at \$0.39 million. The share of US radish exports received by Europe fell to 4.0% from 15.3% in 1991.

In 1991 the US exported 874.60 MT of radishes valued at \$0.32 million to Asia. This made it the third largest market in 1991, receiving 3.2% of the value of radishes exported by the US. There was a rapid decline in the exports of radish from the US to this group between 1991 and 1994. Exports grew between 1994 and 1996 before falling again in 1997. Exports to this group showed strong growth between 1997 and 2000, moving from 63.60 MT valued at \$0.10 million to 673.61 MT valued at \$0.62 million, and then fell to 313.56 MT valued at \$0.37 million in 2002.

### **2.8.2 Import**

In 1991 the US imported 13,671 MT of fresh radishes valued at \$8.69 million, and by 2002, imports increased to 20,875.34 MT valued at \$17.33 million. This represented an overall increase in volume by 52.7% at an average rate of 5.8% per annum and in value by 99.3% at an average rate of 10.6% per annum. With the exception of 1996 and 1997, the pattern of growth was cyclical with a year of growth followed by a year of decline.

In 1991, CANMEX was the major supplier providing 12,950.96 MT valued at \$7.52 million. Based on value this accounted for 86% of the US import market for fresh radishes. Imports from this group showed an upward trend with a growth pattern similar to the overall growth pattern of total radish imports by the US. Asia was the second largest supplier with a 12% share of the US's import market in 1991. Between 1991 and 1998, imports from Asia declined to 411.66 MT valued at \$0.45 million from 650.54 MT valued at \$1.0 million. After 1998, there was a strong growth of radish imports to the US from Asia. By 2002, imports reached a level of 1,616.34 MT valued at \$1.15 million (see Tables 2.8.1 and 2.8.2).



Despite these overall changes in import levels, in 2002 Asia was still the second largest supplier with 6.6% share of the US import market for fresh radishes while CANMEX, with an 88% share of the market, remained the largest supplier.

**Table 2.8.1: Volume of Radishes Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	185.70	--	244.07	--	--	--	--	--	--	4.00	--	--
ASIA	874.60	689.04	199.31	101.05	114.60	217.83	63.60	125.42	464.17	673.61	333.10	313.56
Europe	3068.44	845.26	328.88	264.24	365.01	1271.85	1372.55	304.33	649.50	781.01	468.19	603.31
LAC	48.62	62.76	7.06	24.17	27.34	113.51	25.35	116.88	3.74	87.56	229.91	20.87
CANMEX	12536.21	13090.12	13605.29	12863.16	13406.36	13191.51	13929.06	12305.40	13864.63	13023.49	13238.42	14703.39
ROW	7.06	--	21.38	92.13	256.96	268.25	533.25	664.63	36.32	22.68	360.69	190.89
<b>TOTAL</b>	<b>16720.64</b>	<b>14687.18</b>	<b>14405.98</b>	<b>13344.75</b>	<b>14170.28</b>	<b>15062.94</b>	<b>15923.81</b>	<b>13516.65</b>	<b>15018.36</b>	<b>14592.34</b>	<b>14630.32</b>	<b>15832.03</b>
US Imports												
AFRICA	2.88	2.38	--	--	522.75	--	--	1.69	--	--	--	--
ASIA	650.54	604.56	652.30	910.53	911.73	777.29	582.15	411.66	445.77	754.15	880.97	1616.34
Europe	2.64	10.50	65.74	50.52	48.53	60.02	58.91	93.06	39.86	24.75	68.60	53.68
LAC	49.19	90.20	30.60	134.19	550.09	719.88	464.77	675.29	921.27	887.50	263.39	601.17
CANMEX	12950.96	12311.10	18877.34	15926.62	18095.66	16910.25	15915.21	21000.74	17572.83	20109.93	16703.68	18365.96
ROW	15.12	--	3.69	--	--	--	2.13	50.31	99.72	218.59	236.43	238.20
<b>TOTAL</b>	<b>13671.32</b>	<b>13018.73</b>	<b>19629.66</b>	<b>17021.86</b>	<b>20128.76</b>	<b>18467.44</b>	<b>17023.17</b>	<b>22232.74</b>	<b>19079.45</b>	<b>21994.92</b>	<b>18153.08</b>	<b>20875.34</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 2.8.2: Value of Radishes Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	0.17	--	0.22	--	--	--	--	--	--	0.00	--	--
ASIA	0.32	0.36	0.15	0.08	0.17	0.32	0.10	0.12	0.32	0.62	0.36	0.37
Europe	1.52	0.53	0.16	0.13	0.21	0.60	0.95	0.21	0.39	0.58	0.37	0.39
LAC	0.03	0.07	0.02	0.05	0.03	0.05	0.02	0.11	0.01	0.08	0.17	0.02
CANMEX	7.89	6.86	8.79	7.72	7.74	7.97	8.28	8.28	8.74	8.48	8.55	8.94
ROW	0.02	--	0.02	0.08	0.14	0.22	0.19	0.19	0.02	0.02	0.34	0.12
<b>TOTAL</b>	<b>9.96</b>	<b>7.82</b>	<b>9.37</b>	<b>8.07</b>	<b>8.28</b>	<b>9.16</b>	<b>9.55</b>	<b>8.91</b>	<b>9.47</b>	<b>9.78</b>	<b>9.79</b>	<b>9.84</b>
US Imports												
AFRICA	0.00	0.00	--	--	0.30	--	--	0.00	--	--	--	--
ASIA	1.00	1.04	0.83	0.99	0.95	0.83	0.66	0.45	0.58	0.52	0.76	1.15
Europe	0.01	0.03	0.09	0.08	0.08	0.10	0.11	0.18	0.06	0.05	0.10	0.12
LAC	0.15	0.12	0.02	0.08	0.55	0.72	0.37	0.57	0.65	0.67	0.25	0.51
CANMEX	7.52	6.59	10.21	9.17	12.12	8.52	9.18	16.04	13.91	17.26	11.56	15.25
ROW	0.01	--	0.01	--	--	--	0.01	0.06	0.13	0.27	0.33	0.30
<b>TOTAL</b>	<b>8.69</b>	<b>7.78</b>	<b>11.15</b>	<b>10.32</b>	<b>14.00</b>	<b>10.17</b>	<b>10.32</b>	<b>17.31</b>	<b>15.32</b>	<b>18.77</b>	<b>13.00</b>	<b>17.33</b>

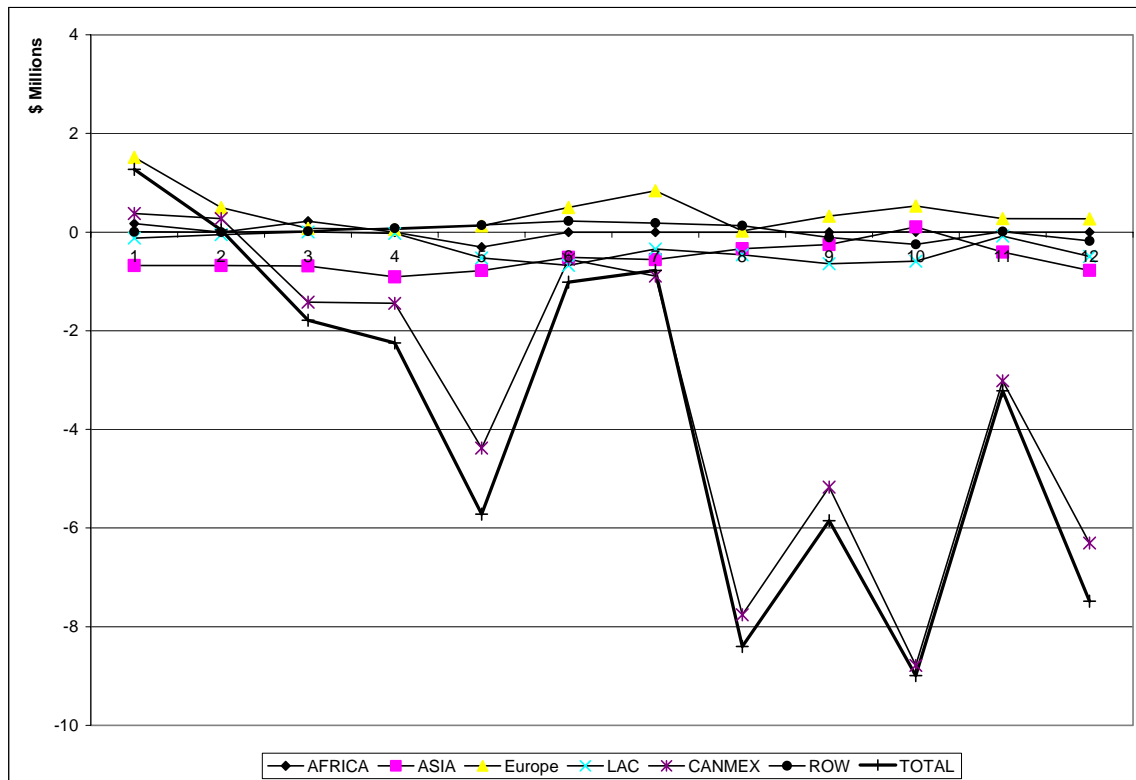
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 2.8.3 Trade Balance

Imports, particularly imports from CANMEX, were the driving force behind the changes in the net trade balance with respect to trade of radishes. In 1991, there was an overall trade surplus of \$1.27 million. By 2002, the surplus decreased to a deficit of \$7.48 million (see Figure 2.8.1). With respect to the trading partners, the US maintained a relatively small trade surplus with Europe from 1991 through to 2002 and, with the exception of 1999 and 2000, maintained a surplus with ROW. With the other trading partners, the US maintained an overall trade deficit.

**Figure 2.8.1: Value of US Radish Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.9 Squash

### 2.9.1 Export

There was an overall increase in the export of squash from the US between 1991 and 2002 with volume growing by 79.4% from 77,593.04 MT in 1991 to 139,219.81 MT in 2002 and value by 105.5% from \$52 million to \$107.31 million. CANMEX was the largest market, receiving 69.7% of the total value of squash exported by the US in 1991. The export of squash to this group grew steadily, increasing from 59,805.49 MT valued at \$36.42 million in 1991 to 110,003.89 MT valued at \$77.12 million in 2002 (see Tables 2.9.1 and 2.9.2).

In 1991 the LAC, receiving 15.4% of the total value exported, was the second largest squash market for the US. Between 1991 and 1993 there was a rapid expansion of exports to this market followed by a period of decline that ended in 1996. Between 1996 and 2000 there was a general increase followed an overall decline. By 2002 export of squash from the US to the LAC stood at 10,584.30 MT with a value of \$13.77 million.

Although this was an increase, relative to the level of exports in 1991, the share received by the LAC fell from 15.4% to 12.8% by 2002.

The US exported 8,199 MT of squash, valued at \$5.57 million to Asia in 1991. This was 10.7% of the total value of squash exported by the US at that time. Exports to Asia grew between 1991 and 1995 then declined between 1995 and 1999. Despite a fall in exports to Asia in the last year, the period 1999 to 2002 saw the export of squash to Asia growing from 8,434.96 MT valued at \$6.75 million to 16,071.98 MT valued at \$13.88 million (see Tables 2.9.1 and 2.9.2).

There was growth in the export of squash from the US to the major markets between 1991 and 2002. However, at the end of the period, the share of exports received by each market changed. CANMEX remained the dominant market with its share of the US total squash export value increasing to 71.9%, and Asia remained the second largest with its share increasing to 12.9%. Despite the growth of export to LAC, the share of the US squash exports received by this group fell to 12.8%.

### **2.9.2 Import**

Importation of fresh squash to the US grew steadily from 138,640.5 MT valued at \$87.55 million in 1991 to 351,287.10 MT valued at \$256.90 million in 2002. This represented a 153.4% growth in volume at an average rate of 9.0% per annum and a 193.4% growth in value at an average rate of 11.0% per annum. CANMEX was the major supplier of fresh squash to the US in 1991 providing 88.9% of the total value of squash imported by the US. Imports from CANMEX increased steadily from 118,458.56 MT in 1991 valued at \$77.8 million to 306,377.25 MT in 2002 valued at \$235.06 million (see Tables 2.9.1 and 2.9.2).

The next largest supplier in 1991 was the LAC, supplying 10.5% of the total value of squash imported by the US at that time. From 1991, imports from the LAC also increased steadily, moving from 19,540.90 MT valued at \$9.20 million to 42,911.96 MT in 2002 valued at \$19.99 million. Imports from CANMEX and LAC increased between 1991 and 2002. However, imports from CANMEX grew at a faster pace, and as a result, by 2001 the share of the total value of squash imports contributed by CANMEX increased to 91.5%, while the share of imports from the LAC fell to 7.8%.

**Table 2.9.1: Volume of Squash Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	15.81	--	--	28.72	94.81	54507.30	378.19	562.52	43.07	17.86	8.63
ASIA	8199.00	11875.00	13670.53	12482.60	30769.88	19591.58	19288.69	14212.30	8434.96	12079.12	21175.72	16071.98
Europe	2551.32	3980.33	2286.62	4046.23	4521.59	3163.52	4505.47	3012.96	3038.39	4375.84	3979.63	2411.94
LAC	6169.23	9284.42	17691.93	12824.60	13710.76	11112.51	15924.25	12425.77	12781.18	14796.58	8982.76	10584.30
CANMEX	59805.49	74689.54	71796.11	68704.77	73405.47	79296.86	80858.00	83236.25	91792.64	97817.60	106482.19	110003.89
ROW	868.00	2090.90	1436.23	1556.11	1612.69	613.40	918.62	2920.72	676.88	802.17	1795.77	139.07
<b>TOTAL</b>	<b>77593.04</b>	<b>101936.00</b>	<b>106881.42</b>	<b>99614.30</b>	<b>124049.09</b>	<b>113872.66</b>	<b>176002.32</b>	<b>116186.18</b>	<b>117286.56</b>	<b>129914.38</b>	<b>142433.94</b>	<b>139219.81</b>
US Imports												
AFRICA	14.75	4.00	--	8.00	508.44	17.06	11.31	10.00	6.44	12.44	8.00	--
ASIA	426.81	187.77	345.39	350.70	533.56	693.21	803.50	1400.23	1978.96	1789.27	1885.56	1914.07
Europe	54.14	52.21	38.74	45.00	47.54	26.10	42.05	113.63	47.14	65.71	29.53	7.48
LAC	19540.90	26744.78	28846.84	27706.68	31611.62	30895.44	30925.97	30877.95	34234.73	37205.65	37807.67	42911.96
CANMEX	118458.56	121198.50	127681.06	157076.31	186053.37	210290.06	221371.25	259713.03	248035.19	257771.65	289330.25	306377.25
ROW	145.34	164.98	144.68	70.00	141.11	191.06	199.05	95.93	63.46	198.88	84.28	76.32
<b>TOTAL</b>	<b>138640.50</b>	<b>148352.24</b>	<b>157056.72</b>	<b>185256.69</b>	<b>218895.63</b>	<b>242112.93</b>	<b>253353.12</b>	<b>292210.75</b>	<b>284365.92</b>	<b>297043.58</b>	<b>329145.28</b>	<b>351287.10</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 2.9.2: Value of Squash Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	0.01	--	--	0.01	0.07	7.69	0.26	0.39	0.06	0.01	0.01
ASIA	5.57	7.09	8.14	9.50	17.94	13.11	10.31	10.77	6.75	11.10	20.48	13.88
Europe	1.60	1.89	1.54	3.07	3.15	2.18	3.63	2.63	2.98	3.07	3.50	2.38
LAC	8.06	11.87	22.24	15.08	17.24	11.98	14.08	15.28	14.33	20.47	13.07	13.77
CANMEX	36.42	39.62	41.92	40.91	42.54	44.90	49.55	55.45	60.08	66.28	78.39	77.12
ROW	0.59	1.44	1.01	1.35	1.11	0.61	0.66	2.03	0.72	0.89	1.15	0.15
<b>TOTAL</b>	<b>52.25</b>	<b>61.92</b>	<b>74.85</b>	<b>69.92</b>	<b>82.00</b>	<b>72.84</b>	<b>85.92</b>	<b>86.43</b>	<b>85.25</b>	<b>101.87</b>	<b>116.60</b>	<b>107.31</b>
US Imports												
AFRICA	0.03	0.01	--	0.01	0.49	0.01	0.02	0.02	0.01	0.01	0.01	--
ASIA	0.32	0.17	0.21	0.30	0.55	0.78	0.91	1.16	1.80	2.16	1.90	1.74
Europe	0.07	0.08	0.07	0.12	0.15	0.11	0.12	0.25	0.11	0.18	0.11	0.05
LAC	9.20	11.71	15.58	16.74	17.86	19.34	16.81	18.02	17.90	20.15	18.71	19.99
CANMEX	77.80	79.52	104.76	99.80	116.68	124.81	135.13	176.13	163.74	191.82	246.86	235.06
ROW	0.14	0.12	0.10	0.14	0.16	0.17	0.16	0.07	0.04	0.12	0.07	0.06
<b>TOTAL</b>	<b>87.55</b>	<b>91.61</b>	<b>120.72</b>	<b>117.11</b>	<b>135.89</b>	<b>145.22</b>	<b>153.15</b>	<b>195.64</b>	<b>183.62</b>	<b>214.45</b>	<b>267.67</b>	<b>256.90</b>

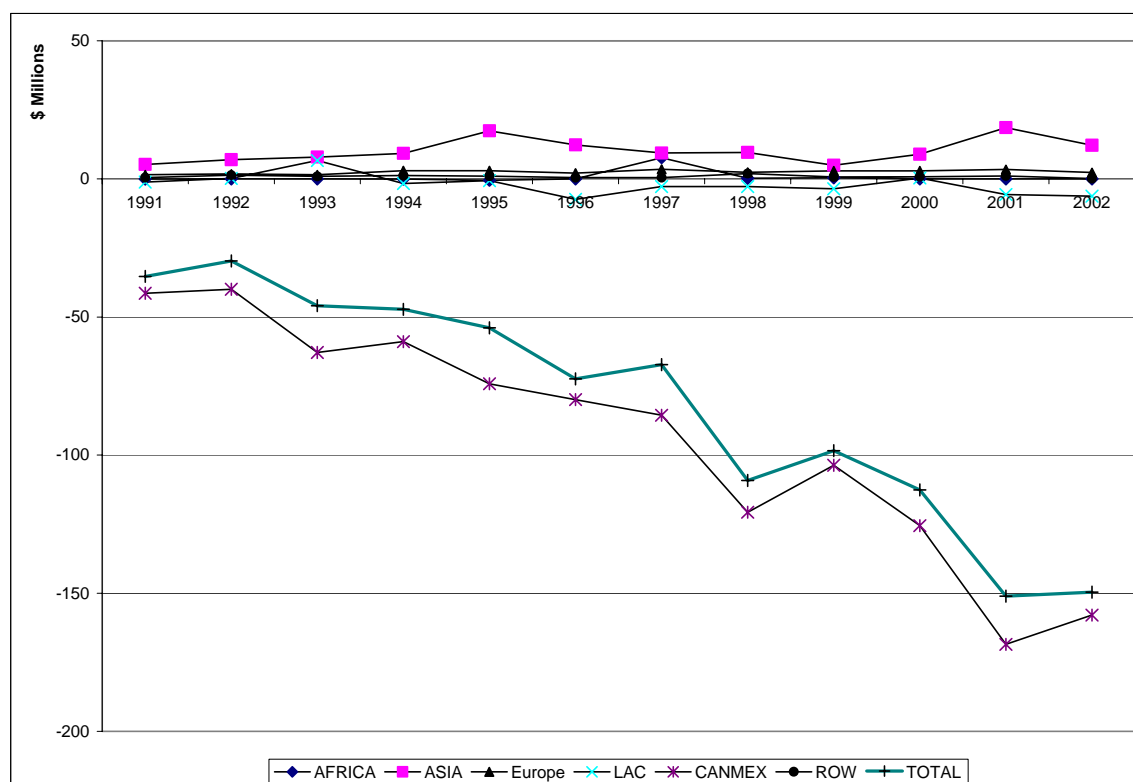
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 2.9.3 Trade Balance

With respect to the trade of fresh squash, the US maintained an increasing trade surplus with Asia as exports to that group grew. It also maintained a trade surplus with Europe and the ROW. However, due to the high levels of imports from CANMEX and the LAC, the US had an increasing trade deficit with these groups. The trade balance of the US, with respect to the trade of squash, was an increasing net deficit. In 1991, the trade deficit was \$35 million, and by 2002, it increased to \$149.59 million. As seen in Figure 2.9.1, trade with CANMEX was the main contributor to the increasing trade deficit.

**Figure 2.9.1: Value of US Squash Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.10 Tomato

### 2.10.1 Export

The exportation of tomatoes from the US exhibited a slight increase between 1991 and 2002, moving steadily from 148,296.42 MT valued at \$119.95 million to 182,285.14 MT valued at \$169.41 million. CANMEX was the main market receiving 144,781.61 MT of tomatoes in 1991 valued at \$115.76 million. This represented 96.5% of the total value of tomatoes exported by the US at that time. Exports to this group grew steadily, and by 2002 it stood at 175,635.87 MT valued at \$157.62 million. Despite the growth of exports to CANMEX, the value share of exports received dropped to 93.1%. This fall in the share received was a result of the growth in tomato exports from the US to Europe.

In 1991, the US exported 1,696.13 MT of tomatoes, valued at \$2.94 million to Europe. This represented approximately 2.5% of the total value of tomatoes exported by the US at that time. Between 1991 and 1994, export of tomatoes to Europe from the US declined to 80.64 MT valued at \$0.13 million and then increased rapidly, peaking in 2000



at 8,790.75 MT with a value of \$12.70 million. In 2002, the US exported 3,809.75 MT of tomatoes, valued at \$8.81 million, to this group. The overall increase in tomato exports to Europe resulted in an increase in the value share of exports received by this group to 5.2% of tomatoes exported by the US.

### **2.10.2 Import**

The importation of tomatoes by the US outperformed exportation. In 1991 the US imported 360,770.94 MT of tomatoes valued at \$289.04 million. In 1992, this fell to 196,027.79 MT with a value of \$167.13 million. After 1992, US import of tomatoes grew rapidly, peaking in 1998 at 847,319.55 MT valued at \$872.80 million. Between 1998 and 2000, there was a slight decline in import followed by a period of growth. By 2002, the importation of tomatoes by the US stood at 860,096.70 MT with a value of \$868.75 million (see Tables 2.10.1 and 2.10.2).

In 1991 CAMEX supplied the US market with 356,215.82 MT of tomatoes valued at \$274.02 million. This represented 94.8% of the total value of tomatoes imported by the US at that time. Similar to the overall pattern of total imports, tomato imports from CANMEX declined in 1992 and then increased until 1998. Imports then decreased between 1998 and 2000 and then increased until 2002. By the end of 2002, tomato imported from CANMEX stood at 824,514.95 MT valued at \$757.79 million. Despite this growth of imports from CANMEX, the value share of the tomato import market held by this group fell to 87.2%. This loss of market share was due to the growth of imports from Europe.

IN 1991, Europe had a 3% value share of the US import market for tomatoes supplying 3,027.50 MT of tomatoes valued at \$8.66 million. Between 1991 and 1992, there was no significant change in import level. After 1992 however, importation of tomatoes from Europe grew rapidly. Import levels from Europe peaked in 1998 at 46,619.63 MT valued at \$144.52 million and then declined to 30,983.32 MT in 2002 valued at \$91.66 million (see Tables 2.10.1 and 2.10.2). In 2002, the value share of the tomato import market of the US held by Europe, increased to 10.6%.

**Table 2.10.1: Volume of Tomato Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	1283.56	1413.31	662.81	1139.50	886.05	801.49	749.27	797.60	1707.57	2105.67	1358.56	777.81
Europe	1696.13	966.28	89.34	80.64	870.32	1947.80	3761.79	3179.18	5991.90	8790.75	3479.72	3809.75
LAC	346.27	413.03	655.73	480.96	729.47	601.73	619.25	783.84	687.87	2824.72	2206.77	2061.70
CANMEX	144781.61	168499.47	167660.83	168180.44	153133.83	157622.64	173875.12	154152.70	162485.79	194831.96	198180.10	175635.87
ROW	188.85	--	73.82	9.38	331.31	305.55	86.94	41.73	--	10.81	207.85	0.00
<b>TOTAL</b>	<b>148296.43</b>	<b>171292.08</b>	<b>169142.53</b>	<b>169890.91</b>	<b>155950.99</b>	<b>161279.20</b>	<b>179092.35</b>	<b>158955.06</b>	<b>170873.12</b>	<b>208563.92</b>	<b>205433.01</b>	<b>182285.14</b>
US Imports												
AFRICA	10.19	--	--	2.44	--	12.12	4.63	35.10	189.86	88.40	74.75	0.00
ASIA	1079.56	1917.56	2261.88	1821.94	1322.37	2266.25	3263.81	4734.34	3832.61	3727.81	3724.31	4293.99
Europe	3027.50	2916.25	9677.93	10490.71	14822.35	27270.03	41025.64	46619.63	41901.30	34695.65	34809.78	30983.32
LAC	434.88	2850.65	1227.56	16.35	64.00	112.86	53.94	148.65	106.88	206.57	65.12	283.75
CANMEX	356215.87	188330.02	405227.79	383705.07	604734.71	707446.90	698112.84	795781.85	694617.31	691344.68	784867.26	824514.94
ROW	2.94	13.31	--	2.88	--	42.07	3.06	--	8.00	--	--	20.73
<b>TOTAL</b>	<b>360770.94</b>	<b>196027.79</b>	<b>418395.17</b>	<b>396039.39</b>	<b>620943.42</b>	<b>737150.21</b>	<b>742463.87</b>	<b>847319.55</b>	<b>740655.94</b>	<b>730063.10</b>	<b>823541.25</b>	<b>860096.70</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 2.10.2: Value of Tomato Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	0.71	0.76	0.37	0.72	0.60	0.42	0.45	1.00	3.36	4.28	2.22	1.25
Europe	2.94	0.69	0.08	0.13	0.88	3.31	7.82	7.57	10.02	12.70	7.21	8.81
LAC	0.33	0.33	0.55	0.38	0.51	0.39	0.71	0.82	0.77	1.97	1.59	1.72
CANMEX	115.76	143.14	130.92	130.59	120.92	122.69	146.97	137.32	125.21	163.45	160.41	157.62
ROW	0.20	--	0.05	0.03	0.29	0.27	0.05	0.02	--	0.02	0.11	--
<b>TOTAL</b>	<b>119.95</b>	<b>144.93</b>	<b>131.98</b>	<b>131.85</b>	<b>123.20</b>	<b>127.08</b>	<b>156.01</b>	<b>146.73</b>	<b>139.36</b>	<b>182.43</b>	<b>171.53</b>	<b>169.41</b>
US Imports												
AFRICA	0.01	--	--	0.00	--	0.04	0.02	0.14	0.51	0.32	0.28	0.00
ASIA	5.85	10.19	8.13	7.11	4.19	9.94	17.09	24.13	17.58	13.53	13.67	18.51
Europe	8.66	8.59	25.71	31.98	45.10	88.87	119.10	144.52	123.06	101.36	99.48	91.66
LAC	0.50	1.18	0.67	0.03	0.07	0.16	0.07	0.21	0.14	0.55	0.17	0.77
CANMEX	274.02	147.15	331.94	346.25	452.51	652.58	610.44	703.79	639.40	602.30	686.93	757.79
ROW	0.01	0.02	--	0.01	--	0.36	0.01	--	0.03	--	--	0.03
<b>TOTAL</b>	<b>289.04</b>	<b>167.13</b>	<b>366.46</b>	<b>385.38</b>	<b>501.87</b>	<b>751.94</b>	<b>746.73</b>	<b>872.80</b>	<b>780.72</b>	<b>718.07</b>	<b>800.53</b>	<b>868.75</b>

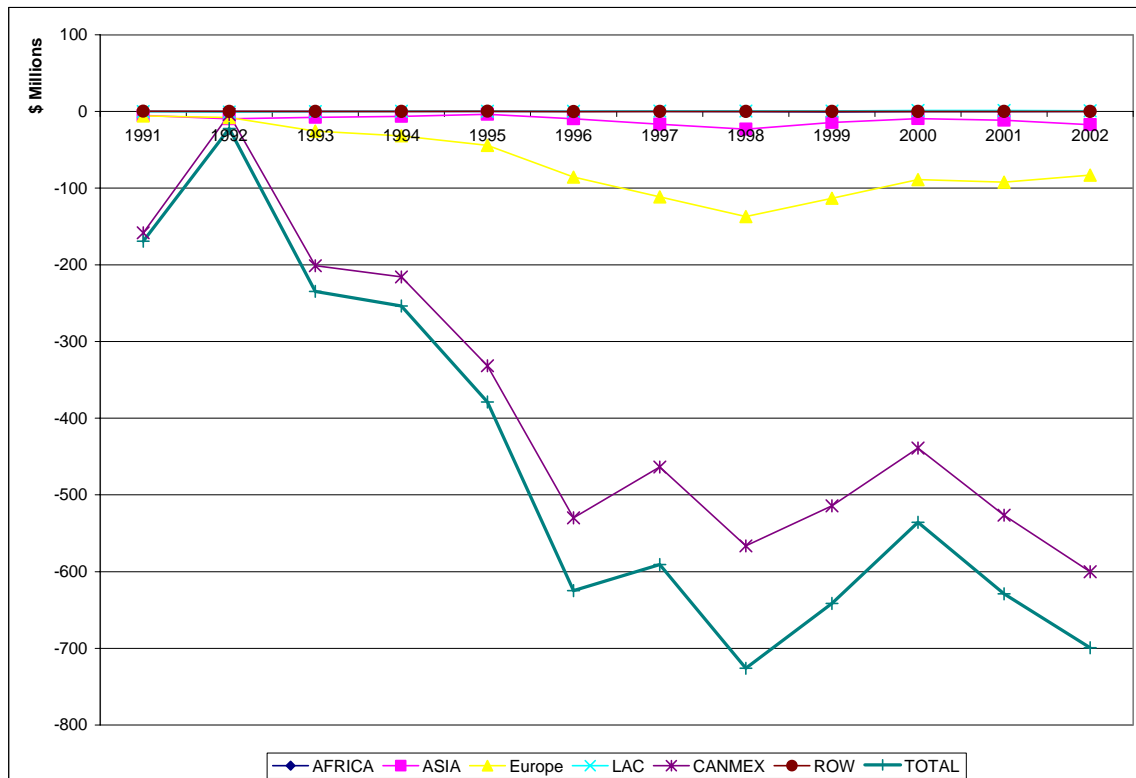
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 2.10.3 Trade Balance

With respect to the trade of tomatoes, the US had a net trade deficit of \$169.09 million in 1991. In 1992, this deficit had decreased to \$22.21 million mainly due to the decrease in imports from CANMEX. After 1992, the trade deficit worsened and by 2002 it had grown to \$699.34 million. The movement in the deficit over the period 1991 to 2002 reflects the trade balance with CANMEX (see Figure 2.10.1), and the growth or contraction of imports from CANMEX was the primary factor determining the trade balance with CANMEX.

**Figure 2.10.1: Value of US Tomato Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 2.11 Watermelon

### 2.11.1 Export

Data pertaining to the US trade of watermelons prior to 1996 was not available. Between 1996 and 2002, the export of watermelons displayed very little growth. In 1996 the US exported 124,871.84 MT of watermelons valued at \$34.05 million, and by 2002 exports of this commodity increased to 178,619.30 MT valued at \$52.65 million. CANMEX was the main market for US export of watermelon. In 1996 export of this commodity by the US to CANMEX totaled 123,373.83 MT valued at \$33.36 million (see Tables 2.11.1 and 2.11.2). Despite a slight decrease between 1999 and 2001, US exportation of watermelons to CANMEX increased to 178,108.98 MT valued at \$52.48 million in 2002. The dominance of CANMEX as an export market was evident in the growth of its value share of watermelon exported by the US. In 1996, it received approximately 98.0%, and by 2002, this increased to approximately 100%.

### 2.11.2 Import

The flow of watermelon imports to the US was even less dynamic than the flow of exports. In 1996, the US imported 206,507.79 MT of watermelons with a value of \$59.37 million, and by 2002, it stood at 204,748.72 MT valued at \$65.23 million. CANMEX was the main supplier of watermelon to the US providing 192,501.94 MT valued at \$54.20 million in 1996 (see Tables 2.11.1 and 2.11.2). This represented 91% of the total value of watermelons imported by the US at that time. By 2002, the importation of watermelon from CANMEX stood at 184,460.11 MT valued at \$55.74 million. Despite the increase in the value of imports, the market share fell to 85.5%. This fall in the market share held by CANMEX resulted from the growth in imports from the LAC.

In 1996, the US imported 14,005.86 MT of watermelons valued at \$5.17 million from the LAC. In 2002, the level of imports from this group increased to 20,288.62 MT valued at \$9.48 million. With this growth, the value share of the US import market for watermelon held by the LAC increased from 8.7% in 1996 to 14.5% in 2002.

**Table 2.11.1: Volume of Watermelon Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1996	1997	1998	1999	2000	2001	2002
US Exports							
AFRICA	--	--	--	--	--	--	--
ASIA	1066.12	1788.34	354.77	260.31	3061.50	81.97	181.00
Europe	84.64	103.04	15.00	11.75	204.62	163.98	--
LAC	164.20	2559.94	191.78	123.43	234.91	68.67	329.31
CANMEX	123373.83	126301.83	124880.01	146951.61	146688.35	123837.46	178108.98
ROW	183.05	760.89	337.63	29.07	32.39	31.86	--
<b>TOTAL</b>	<b>124871.84</b>	<b>131514.04</b>	<b>125779.17</b>	<b>147376.19</b>	<b>150221.78</b>	<b>124183.94</b>	<b>178619.30</b>
US Imports							
AFRICA	--	--	--	--	--	--	--
ASIA	--	--	--	--	--	--	--
Europe	--	--	--	--	--	--	--
LAC	14005.86	19334.54	15465.32	17319.13	14483.51	16787.43	20288.62
CANMEX	192501.94	209371.63	204165.74	201137.19	187820.56	202521.88	184460.11
ROW	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>206507.79</b>	<b>228706.16</b>	<b>219631.07</b>	<b>218456.32</b>	<b>202304.06</b>	<b>219309.30</b>	<b>204748.72</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 2.11.2 Value of Watermelon Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1996	1997	1998	1999	2000	2001	2002
US Exports							
AFRICA	--	--	--	--	--	--	--
ASIA	0.49	0.39	0.26	0.14	1.14	0.03	0.08
Europe	0.03	0.09	0.01	0.02	0.12	0.16	--
LAC	0.05	0.38	0.11	0.02	0.05	0.05	0.12
CANMEX	33.36	35.44	40.05	41.36	40.76	39.84	52.48
ROW	0.12	0.13	0.11	0.01	0.01	0.02	--
<b>TOTAL</b>	<b>34.05</b>	<b>36.43</b>	<b>40.54</b>	<b>41.54</b>	<b>42.08</b>	<b>40.09</b>	<b>52.67</b>
US Imports							
AFRICA	--	--	--	--	--	--	--
ASIA	--	--	--	--	--	--	--
Europe	--	--	--	--	--	--	--
LAC	5.17	5.31	5.89	6.99	4.80	6.17	9.48
CANMEX	54.20	46.20	56.12	59.76	55.42	68.22	55.74
ROW	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>59.37</b>	<b>51.51</b>	<b>62.01</b>	<b>66.75</b>	<b>60.22</b>	<b>74.39</b>	<b>65.23</b>

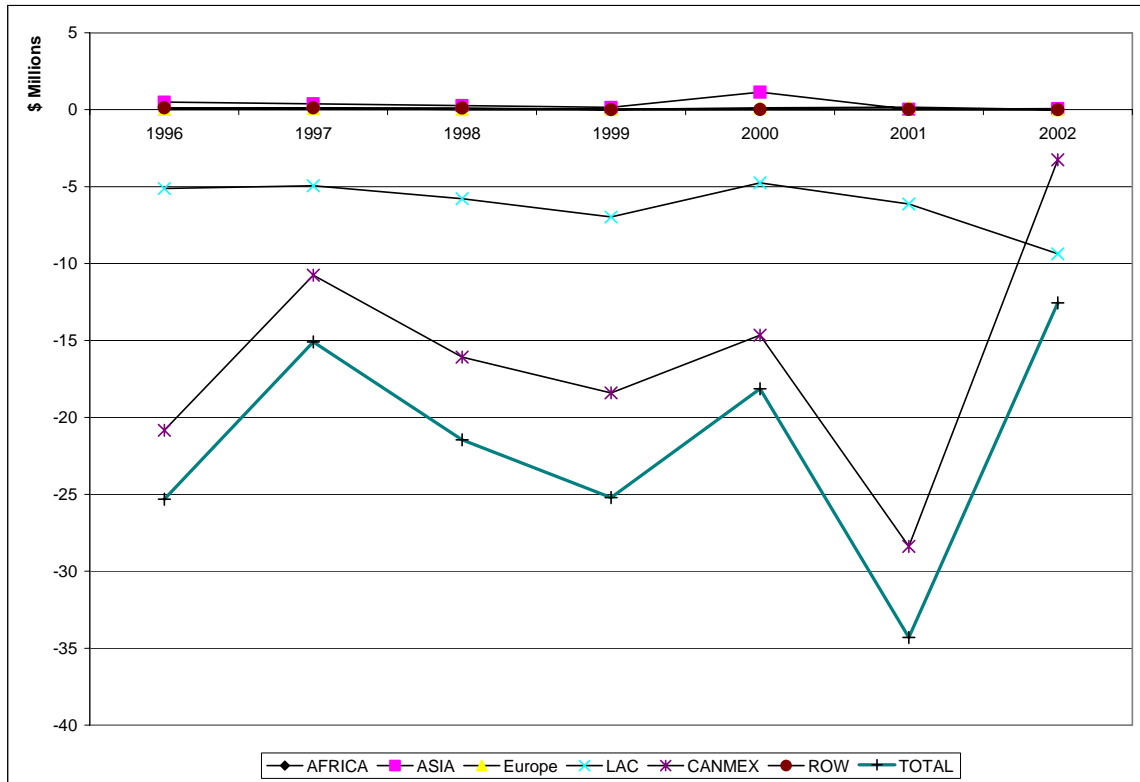
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### **2.11.3 Trade Balance**

With respect to the trade of watermelons, the US had a net trade deficit of \$25.31 million in 1996 that declined in 1997 to \$15.09 million. Between 1997 and 2001 the deficit increased to \$34.30 million. This increase in the deficit resulted primarily from the increase in imports from CANMEX. In 2002, the deficit fell to \$12.55 million. The fall in the deficit would have been greater had it not been for the increasing deficit with the LAC as imports from this group increased (see figure 2.11.1).

**Figure 2.11.1: Value of US Watermelon Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## **3 Fresh Fruits**

### **3.1 Berries**

#### **3.1.1 Export**

In 1991 the US exported 17,970.20 MT of berries valued at \$15.37 million. Despite a fall in export volume in 1992, between 1991 and 1993 there was an overall increase in berry exports. The volume and value of exports declined between 1993 and 1995 and then showed a strong upward trend, despite a fall in volume in 1997 and a fall in volume and value in 2001. By 2002, the US exportation of berries stood at 26,916.24 MT valued at \$40.02 million (see Tables 3.1.1 and 3.1.2).

In 1991, CANMEX and Europe were the major markets for berries exported by the US with value shares of 67.1% and 30.2%. Berry exports received by CANMEX from the US stood at 12,823.69 MT with a value of \$10.32 million in 1991. This increased to 21,101.69 MT in 2002 valued at \$27.74 million with a growth pattern similar to the overall growth of berry exports made by the US. By 2002 the value share of the total US export of berries received by CANMEX grew to 69.3%.

In 1991 Europe received 4,567.5 MT of berries from the US valued at \$4.64 million. Between 1991 and 1996 there was an erratic growth in berry exports to Europe, and after 1996 exports to Europe declined. By 2002 exports to this group fell to 1,484.74 MT valued at \$2.61 million. Europe's value share of the total US export of berries fell from 30.2% in 1991 to 6.5% in 2002. This fall in market share was not only due to falling exports from the US but the growth of US exports to Asia.

In 1991 the US exported 59.49 MT of berries valued at \$0.11 million to Asia. This accounted for 0.7% of the total value of berries exported by the US at that time. Exports to Asia grew steadily, and by 2002, US export of berries to this group stood at 2,088.71 MT valued at \$7.68 million (see Tables 3.1.1 and 3.1.2), 19.2% of the total value of berries exported by the US at that time.



**Table 3.1.1: Value of Berries Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	1.44	--	--	9.06	3.50	37.23	26.11	9.06
ASIA	59.49	131.07	138.62	586.92	648.46	1280.53	1360.54	1355.63	1659.53	2148.84	1741.63	2088.71
Europe	4567.50	2323.41	7270.45	3287.29	4522.41	5798.52	1986.32	1892.95	2125.41	2384.67	2217.56	1484.74
LAC	31.50	507.93	6.56	32.89	--	--	136.81	4.13	95.48	10.85	21.64	2137.06
CANMEX	12823.69	9496.13	11767.81	9152.06	5982.59	5042.55	4743.09	8771.89	13291.27	22003.94	21985.25	21101.69
ROW	488.02	140.32	232.07	482.05	516.48	554.96	443.63	356.14	86.24	194.35	113.39	94.99
<b>TOTAL</b>	<b>17970.20</b>	<b>12598.85</b>	<b>19415.50</b>	<b>13541.21</b>	<b>11671.37</b>	<b>12676.56</b>	<b>8670.39</b>	<b>12389.80</b>	<b>17261.42</b>	<b>26779.87</b>	<b>26105.58</b>	<b>26916.24</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	2.90	--	1.86	--	--	3.06	6.13	--	0.03	--	--	--
Europe	3.00	4.44	--	1.00	--	19.55	--	17.84	--	15.69	5.37	13.06
LAC	3.25	7.25	17.47	124.32	417.75	860.87	1147.25	1456.80	2064.41	2902.28	3973.31	5649.76
CANMEX	28457.23	26852.42	20755.73	33719.70	33532.11	26303.86	27480.17	33433.61	41377.95	40021.18	45149.04	52709.54
ROW	284.75	269.56	271.00	252.88	233.28	165.74	116.29	99.92	76.41	103.14	101.53	120.12
<b>TOTAL</b>	<b>28751.13</b>	<b>27133.66</b>	<b>21046.05</b>	<b>34097.90</b>	<b>34183.14</b>	<b>27353.08</b>	<b>28749.82</b>	<b>35008.17</b>	<b>43518.79</b>	<b>43042.30</b>	<b>49229.25</b>	<b>58492.48</b>

-- Represents data not reported;

Source: United Nations COMTRADE database

### 3.1.2 Import

In 1991 the US imported 28,751.13 MT of berries valued at \$24.97 million. Between 1991 and 1997, the importation of berries displayed a moderate decline in volume and growth in value moving to 28,749.82 MT valued at \$30.78 million. After 1997, there was a strong upward trend in the importation of berries, and by 2002 importation of berries by the US had increased to 58,492.48 MT valued at \$76.72 million (see Tables 3.1.1 and 3.1.2). In 1991 CANMEX was the main supplier of berries to the US market with a 92.4% value share of the US import market for berries. The imports from CANMEX grew from 28,457.23 MT in 1991 valued at \$23.09 million to 52,709.54 MT in 2002 valued at \$49.40 million (see Tables 3.1.1 and 3.1.2). Despite this increase in imports, the value share of the import market held by CANMEX fell to 64.4% in 2002. This decline was due to the increase in imports from the LAC.

In 1991, the US imported 3.25 MT of berries valued at \$0.02 million from the LAC. This represented approximately 0.1% of the total value of berries imported by the US at that time. By 2002 imports from this group had grown to 5,649.76 MT valued at \$26.17 million. With the increase, the LAC's value share of the US import market for berries grew to 34.1%

**Table 3.1.2: Value of Berries Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.07	0.02	0.08	0.06	0.00
ASIA	0.11	0.09	0.16	0.51	0.48	0.82	1.03	2.60	5.91	7.52	5.85	7.68
Europe	4.64	5.23	6.58	4.51	3.90	6.51	5.49	4.43	3.30	2.97	2.72	2.61
LAC	0.02	0.29	0.00	0.03	0.00	0.00	0.31	0.01	0.10	0.05	0.02	1.63
CANMEX	10.32	14.27	13.73	12.77	10.30	9.55	10.96	14.82	17.47	24.11	25.02	27.74
ROW	0.29	0.50	0.53	0.91	1.29	1.06	1.21	0.69	0.22	0.58	0.42	0.35
<b>TOTAL</b>	<b>15.37</b>	<b>20.39</b>	<b>21.00</b>	<b>18.72</b>	<b>15.98</b>	<b>17.94</b>	<b>19.01</b>	<b>22.62</b>	<b>27.03</b>	<b>35.31</b>	<b>34.09</b>	<b>40.02</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	0.01	--	0.01	--	--	0.01	0.01	--	0.00	--	--	--
Europe	0.01	0.02	--	0.01	--	0.03	--	0.01	--	0.05	0.04	0.07
LAC	0.02	0.04	0.04	0.30	1.41	2.61	3.88	6.05	8.44	11.88	18.68	26.17
CANMEX	23.09	25.51	17.08	26.66	27.94	24.68	25.90	50.96	40.11	43.02	47.66	49.40
ROW	1.84	1.60	1.46	1.43	1.35	1.13	0.98	0.83	0.63	0.97	0.98	1.08
<b>TOTAL</b>	<b>24.97</b>	<b>27.17</b>	<b>18.59</b>	<b>28.39</b>	<b>30.69</b>	<b>28.45</b>	<b>30.78</b>	<b>57.84</b>	<b>49.18</b>	<b>55.93</b>	<b>67.36</b>	<b>76.72</b>

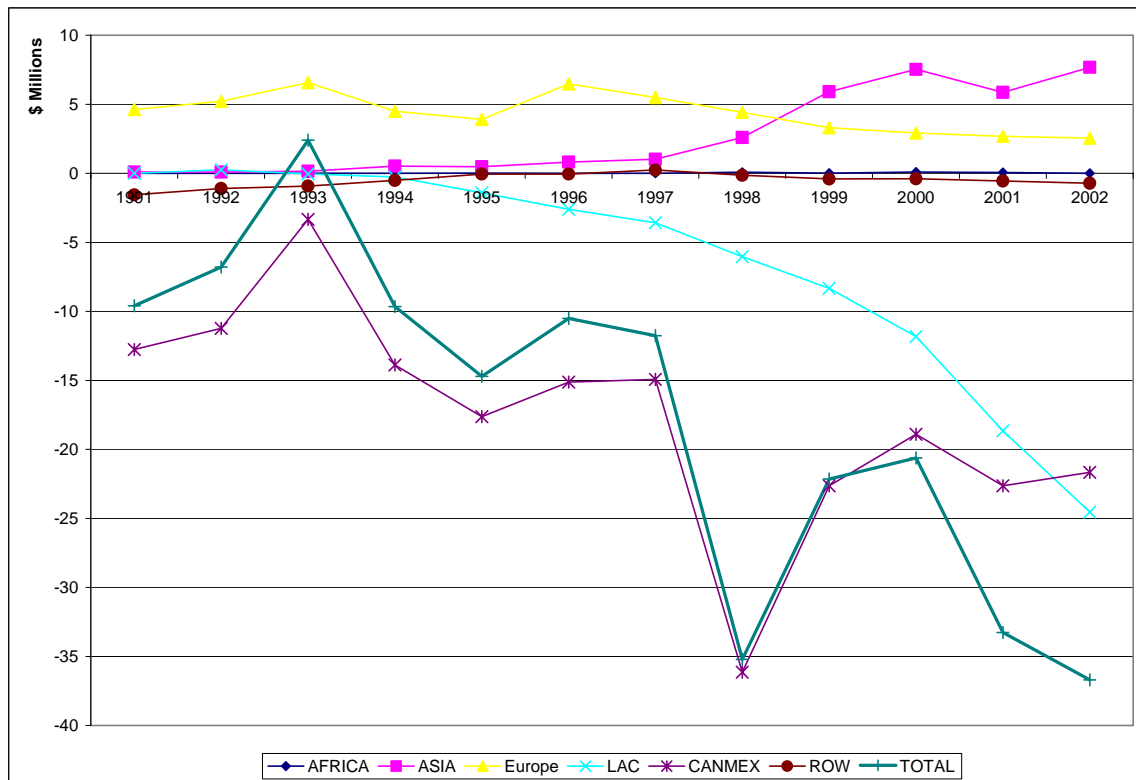
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 3.1.3 Trade Balance

With respect to the trade of berries, the US had a net trade deficit of \$9.60 million in 1991. In 1992, the trade balance improved, moving to a \$2.41 million surplus. This improvement was mainly because of a decrease in imports from CANMEX. After 1992, the trade balance worsened, and, with increasing imports from CANMEX and the LAC, it plummeted to a \$35.22 million deficit in 1998 (see Figure 3.1.1). There was an improvement in the trade balance as the deficit decreased to \$20.61 million in 2000. However, due to increased imports from the LAC, by 2002 the deficit increased to \$36.70 million.

Figure 3.1.1: Value of US Berry Trade Balance with Trading Groups, 1991 - 2002



Source: United Nations COMTRADE database

## 3.2 Grapefruit

### 3.2.1 Export

In spite of the growth in export value between 1993 and 1996, and volume between 1992 and 1995, the export of fresh grapefruit from the US showed an overall downward trend. Exports declined from 486,486.08 MT valued at \$274.16 million in

1991 to 427,096.54 MT valued at \$218.06 million in 2002 (see Tables 3.2.1 and 3.2.2). This was an approximate 8.8% fall in volume and a decline of approximately 20.5% in value. Asia was the major market with a 63% value share of US exports of this commodity in 1991. Exportation of grapefruit to Asia declined between 1991 and 2002, moving from 272,457.72 MT valued at \$172.75 million to 250,957.75 MT valued at \$132.45 million.

Europe and CANMEX were the next major markets with value shares of 22% and 14%, respectively, of grapefruits exported by the US in 1991. Exports to these markets also declined, and by 2002, even though the major markets remained the same, the market proportions changed. The value share received by Asia and CANMEX fell to 60.7% and 12.3% respectively, while that of Europe increased to 25.3%.

### **3.2.2 Import**

In 1991 the US imported 8,360.84 MT of grapefruits valued at \$1.57 million. Between 1991 and 1995, the importation of grapefruit displayed an overall growth. After 1995, there was a mild downward trend until 2000. Between 2000 and 2001, there was a sharp increase in the importation of grapefruit by the US. By 2002 importation of grapefruits by the US had increased to 23,247.95 MT valued at \$2.16 million (see Tables 3.2.1 and 3.2.2). In 1991, the LAC and CANMEX were the main suppliers of fresh grapefruit to the US market with value shares of 59.8% and 36.4% respectively. Asia, with a value share of 3.8% was the next major supplier. Taking into consideration consistent supply, LAC and Asia were the overall major suppliers. Only in 1991, 1996, 2000, and 2002 were there recorded imports of grapefruit from CANMEX. Imports from the LAC followed the same pattern of total imports, a mild downward trend until 2000 and a relatively sharp increase between 2000 and 2002.

Imports from Asia increased between 1991 and 1993, 1994 and 1996, and 1998 and 1999. A period of decline followed each period of growth, with the most notable period of decline occurring between 1999 and 2001. Overall, the importation of grapefruit from Asia increased. It grew to 197.23 MT in 2002 with a value of \$0.17 million from 72.40 MT in 1991 valued at \$0.06 million. In 2002, with the growth in grapefruit imports from the LAC and Asia, along with the low level of imports from

CANMEX, the value share of the US import market held by Asia and the LAC increased to 7.8% and 91.2% respectively.

**Table 3.2.1: Volume of Grapefruit Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	141.59	--	16.66	--	--	--	87.29	--	20.00	20.00
ASIA	272457.72	262546.84	252182.65	288482.60	287049.70	274698.09	258105.35	194383.66	231146.85	231634.18	222862.53	250957.75
Europe	115376.39	99077.86	115336.75	111260.93	129506.88	132894.26	152587.04	137684.12	131367.65	111472.79	113819.72	115934.40
LAC	44.98	245.31	64.66	387.08	249.34	680.67	421.17	505.98	967.28	161.97	1856.04	67.73
CANMEX	77213.65	66439.12	73183.86	75221.27	77683.46	71466.68	73970.69	50853.66	56542.14	49922.11	49396.44	52898.00
ROW	3393.36	3282.50	3217.56	2068.60	1719.83	3446.48	4509.04	2819.71	3963.70	5570.85	5232.92	7218.66
<b>TOTAL</b>	<b>468486.08</b>	<b>431591.62</b>	<b>444127.07</b>	<b>477420.48</b>	<b>496225.86</b>	<b>483186.18</b>	<b>489593.28</b>	<b>386247.14</b>	<b>424074.91</b>	<b>398761.89</b>	<b>393187.65</b>	<b>427096.54</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	4.31	--	--	--
ASIA	72.40	170.76	331.31	140.24	205.04	442.19	422.56	304.13	509.47	231.43	141.82	197.23
Europe	--	--	--	0.11	--	--	--	--	--	--	--	--
LAC	7692.70	10519.30	11749.04	13859.28	14726.62	13166.77	11775.66	9425.82	8223.97	9808.28	25079.50	23017.77
CANMEX	595.75	--	--	--	--	108.69	--	--	--	0.64	--	32.95
ROW	--	--	--	--	--	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>8360.84</b>	<b>10690.06</b>	<b>12080.35</b>	<b>13999.62</b>	<b>14931.66</b>	<b>13717.65</b>	<b>12198.23</b>	<b>9729.94</b>	<b>8737.75</b>	<b>10040.35</b>	<b>25221.32</b>	<b>23247.95</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 3.2.2 : Value of Grapefruit Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	0.12	--	0.02	--	--	--	0.08	--	0.01	0.01
ASIA	172.75	147.49	123.56	149.57	159.78	160.08	140.69	107.27	130.08	130.41	122.97	132.45
Europe	60.77	51.45	61.34	52.63	58.13	58.10	64.50	55.79	57.60	53.74	51.52	55.15
LAC	0.03	0.17	0.03	0.18	0.13	0.38	0.23	0.24	0.59	0.15	0.37	0.04
CANMEX	38.96	36.04	35.04	28.82	30.79	28.91	29.47	29.06	29.91	25.57	26.55	26.80
ROW	1.65	1.56	1.59	1.14	0.97	3.85	2.99	1.59	1.99	3.50	2.86	3.61
<b>TOTAL</b>	<b>274.16</b>	<b>236.71</b>	<b>221.68</b>	<b>232.34</b>	<b>249.82</b>	<b>251.31</b>	<b>237.87</b>	<b>193.94</b>	<b>220.25</b>	<b>213.37</b>	<b>204.28</b>	<b>218.06</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	0.01	--	--	--
ASIA	0.06	0.16	0.28	0.13	0.20	0.34	0.30	0.29	0.47	0.24	0.09	0.17
Europe	--	--	--	0.00	--	--	--	--	--	--	--	--
LAC	0.94	1.07	1.38	1.21	3.15	1.32	1.05	0.71	0.61	0.82	3.16	1.97
CANMEX	0.57	--	--	--	--	0.09	--	--	--	0.01	--	0.02
ROW	--	--	--	--	--	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>1.57</b>	<b>1.22</b>	<b>1.66</b>	<b>1.35</b>	<b>3.35</b>	<b>1.75</b>	<b>1.35</b>	<b>1.00</b>	<b>1.09</b>	<b>1.06</b>	<b>3.26</b>	<b>2.16</b>

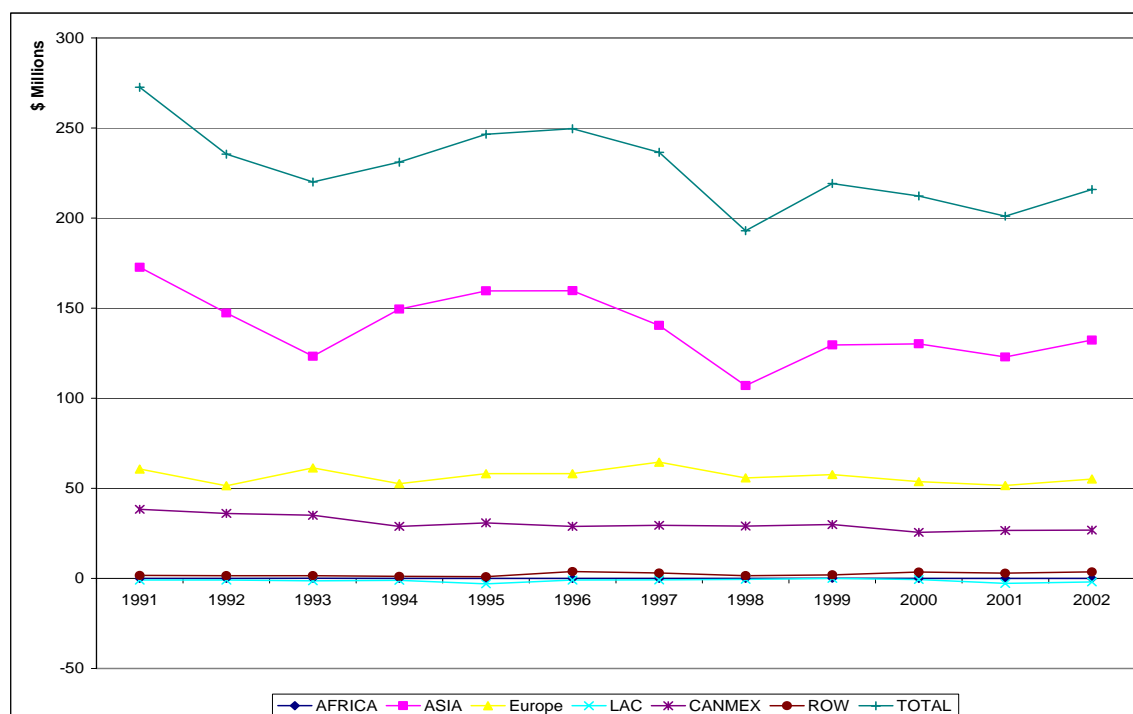
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 3.2.3 Trade Balance

With respect to the trade of grapefruits, the US showed a declining trade surplus with most of the trading groups. The LAC was the only group with which the US showed a trade deficit that worsened with increased imports from this group. In 1991, the US had a net trade surplus of \$272.59 million. Due to declining exports, particularly exports to Asia, by 2002 the net surplus had declined to \$215.90 million (see Figure 3.2.1).

**Figure 3.2.1: Value of US Grapefruit Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

### 3.3 Lime and Lemon

#### 3.3.1 Export

The export of limes and lemons by the US displayed a downward trend. In 1991 the US exported 124,022 MT of lemons and limes valued at \$133.95 million and this declined to 106,455 MT in 2002 valued at \$83.58 million (see Tables 3.3.1 and 3.3.2). This was an overall 14.2% decline in volume at an average rate of 1.1% per annum and a 37.6% decrease in value at an average rate of 3.1% per annum. Between 1997 and 1998, there was a significant decline in the value of limes and lemons exported by the US.

In 1991, the largest market was Asia, which received 81.9% of the value of limes and lemons exported by the US. CANMEX, which received a value share of 16%, was the next largest. With declining exports to Asia and increased exports to CANMEX by 2002, the value share of exports received by Asia fell to 70.8% while that received by CANMEX increased to 25.7%.



### **3.3.2 Import**

Over the period 1991 to 2002, the imports of limes and lemons to the US increased in volume by 220.0% from 84,456.18 MT to 270,297.25 MT (see Table 3.3.1) at an average rate of 44.5% per annum. Import value increased by 354.9% from \$21.10 million to \$95.95 million (see Table 3.3.2) at an average rate of 39.3% per annum. Despite the overall increase in imports, there was a significant period where the importation of limes and lemons fell from 118,383.45 MT valued at \$41.79 million in 1993 to 20,125.43 MT in 1995 valued at \$7.80 million. Between 1995 and 1996, there was no significant change in the import of limes and lemons. After 1996, imports grew to a maximum level in 2002

CANMEX, the LAC and Europe were the major suppliers of limes and lemons to the US. In 1991 imports from CANMEX accounted for 69.0% of the value of limes and lemons imported by the US; the LAC accounted for 21.5%; Europe, 7.1%; and Asia, 2.4%. The pattern of growth of imports from CANMEX was similar to that of total imports, decreasing significantly between 1993 and 1995 and growing between 1996 and 2002. With the overall growth, the value share held by CANMEX of the US import market for limes and lemons increased to 74.8% in 2002.

There was also an increase in the importation of limes and lemons from Europe and the LAC. Imports from Europe showed a definite upward trend after 1996 with a significant increase between 2001 and 2002. Imports from the LAC displayed an upward trend between 1992 and 2001 and then declined between 2001 and 2002. With the growth of imports from Europe, particularly between 2001 and 2002, the value share of the market held by the LAC fell to 9.1% while that held by Europe increased to 16%.

**Table 3.3.1: Volume of Limes and Lemons Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	19.11	6.75	11.31	4.38
ASIA	97140.05	104682.58	97644.44	93151.33	99348.75	100768.92	90564.25	83738.11	84463.68	82716.62	83427.03	71318.98
Europe	991.84	6147.61	6217.35	1322.51	3340.30	3243.87	1511.48	451.43	115.92	92.67	104.01	258.23
LAC	21.78	16.55	29.64	24.04	46.32	19.82	86.02	66.26	50.82	32.08	94.40	227.66
CANMEX	24213.47	30400.49	26293.59	29540.02	31651.62	34392.11	32063.50	33780.08	35874.52	33391.30	34870.13	32825.55
ROW	1654.87	1869.25	2151.75	2252.37	2831.19	2555.19	3557.31	3679.31	1179.03	1709.11	1758.95	1820.25
<b>TOTAL</b>	<b>124022.00</b>	<b>143116.46</b>	<b>132336.77</b>	<b>126290.26</b>	<b>137218.16</b>	<b>140979.90</b>	<b>127782.57</b>	<b>121715.18</b>	<b>121703.09</b>	<b>117948.52</b>	<b>120265.82</b>	<b>106455.05</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	3.25	49.06	2.84	385.00
ASIA	731.70	514.11	21.88	42.57	40.71	53.58	33.29	30.87	51.94	107.59	45.72	170.16
Europe	1511.22	21.44	5737.24	784.88	771.56	339.19	5049.32	12433.45	8659.80	8947.89	7618.26	21123.75
LAC	14363.20	6055.15	8467.92	14743.55	14298.18	13816.04	18971.65	10332.75	14311.08	19374.81	29916.18	13954.66
CANMEX	67850.06	88849.75	103973.25	47362.31	5002.36	6995.48	93609.06	160675.25	156071.63	179531.01	140327.63	234586.37
ROW	--	--	183.17	--	12.63	12.00	--	--	147.48	230.91	--	77.30
<b>TOTAL</b>	<b>84456.18</b>	<b>95440.44</b>	<b>118383.45</b>	<b>62933.30</b>	<b>20125.43</b>	<b>21216.29</b>	<b>117663.33</b>	<b>183472.32</b>	<b>179245.17</b>	<b>208241.25</b>	<b>177910.62</b>	<b>270297.25</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 3.3.2: Value of Limes and Lemons Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	0.03	0.01	0.01	0.00
ASIA	109.64	82.04	91.16	87.43	105.53	96.01	98.51	58.20	61.14	56.50	56.58	59.16
Europe	0.90	4.09	3.30	0.94	2.37	2.16	1.13	0.34	0.09	0.13	0.15	0.52
LAC	0.01	0.02	0.03	0.01	0.03	0.04	0.04	0.03	0.06	0.03	0.09	0.24
CANMEX	21.89	19.16	19.36	19.45	20.57	23.17	20.81	20.26	24.46	22.35	22.69	21.44
ROW	1.50	1.01	1.41	1.60	2.10	2.08	2.72	2.62	0.81	1.09	1.28	2.21
<b>TOTAL</b>	<b>133.95</b>	<b>106.31</b>	<b>115.26</b>	<b>109.43</b>	<b>130.60</b>	<b>123.46</b>	<b>123.22</b>	<b>81.45</b>	<b>86.58</b>	<b>80.11</b>	<b>80.81</b>	<b>83.58</b>
US Imports												
AFRICA	--	--	--	--	--	--	--	--	0.00	0.04	0.02	0.33
ASIA	0.51	0.38	0.04	0.05	0.10	0.11	0.09	0.14	0.15	0.13	0.17	0.20
Europe	1.51	0.04	2.33	0.45	0.44	0.23	4.24	8.72	6.48	6.14	5.63	14.85
LAC	4.53	1.78	4.84	4.79	5.49	4.68	9.13	5.51	9.55	14.85	21.39	8.70
CANMEX	14.55	20.53	34.38	20.74	1.75	3.51	22.60	44.37	57.10	61.31	53.25	71.78
ROW	--	--	0.20	--	0.02	0.02	--	--	0.18	0.36	--	0.10
<b>TOTAL</b>	<b>21.09</b>	<b>22.74</b>	<b>41.79</b>	<b>26.04</b>	<b>7.80</b>	<b>8.55</b>	<b>36.06</b>	<b>58.75</b>	<b>73.46</b>	<b>82.83</b>	<b>80.47</b>	<b>95.95</b>

-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 3.3.3 Trade Balance

With respect to its trade of limes and lemons, the US had a declining net surplus. The US trade surplus fell from \$112.85 million in 1991 to \$73.48 million in 1993 as imports grew faster than exports, particularly imports from CANMEX. By 1995, there was a fall in imports from CANMEX and this led to a growth in the trade surplus as it moved to \$122.80 million. After 1995, exports to CANMEX and Asia declined, imports from CANMEX and the LAC increased, and by 2002, the trade surplus declined to a deficit of 12.37 million (see Figure 3.3.1).

**Figure 3.3.1: Value of US Limes and Lemons Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 3.4 Orange

### 3.4.1 Export

In 1991, the US exported 231,054.51 MT of fresh oranges that had a value of \$189.57 million, and this increased to 629,607.68 MT with a value of \$356.51 million in 1998. By 2002 the export level fell to 550,749.70 MT valued at \$325.08 million after passing through the lowest level of export in 1999, when it exported 258,478.78 MT valued at \$171.98 million (see Tables 3.4.1 and 3.4.2). This pattern of growth was reflected in the major markets for US orange exports.

There was not much difference between 1991 and 2002 in the destination of fresh oranges exported by the US. Asia was the major market accounting for 65.3% of the value of fresh oranges exported in 1991 and 66.6% in 2002. CANMEX was the next major market with values shares of 33.1% in 1991 and 30.3% in 2002. The fall in the share of US orange exports received by CANMEX resulted from the growth of exports to

the ROW. In 1991, the ROW accounted for 0.8% of the value of fresh oranges exported by the US. By 2002, the value share of exports to the ROW increased to 2.5%.

### **3.4.2 Import**

In 1991 the US imported 68,044.56 MT of fresh oranges valued at \$53 million. In 1992, imports shrank to 9,808.08 MT valued at \$5.13 million. From 1992, import levels grew, and by 2002, it reached 58,716.53 MT valued at \$55.01 million (see Tables 3.4.1 and 3.4.2). In 1999 there was a jump when the import of fresh oranges attained its highest level of 103,923.9 MT valued at \$93.91 million. The main suppliers of the fresh oranges to the US import market in 1991 were CANMEX, with a 34.5% value share of the market; Africa, with 28.9%; and Europe, with a 26.5% value share.

The importation of oranges from CANMEX and Europe fell between 1991 and 1992. Apart from a spike in 1999, imports from Europe showed no signs of recovery, while imports from CANMEX displayed some growth but did not attain its 1991 level of exports to the US. As a result, the value share of the US import market for oranges held by CANMEX fell to 13.0% in 2002, and that of Europe fell to 0.4%.

In 1991, the US imported 20,015.88 MT of oranges from Africa valued at \$15.30 million. The next reported import from Africa, in 1995, was substantially lower, 305.69 MT with a value of \$0.23 million. Between 1997 and 2002, the importation of oranges from Africa surged, moving from 307.38 MT valued at \$0.70 Million to 16,506.93 MT valued at \$18.03 million. Despite the fall in imports relative to the 1991 level, Africa's value share of the import market rose to 32.8%. The increase of orange imports from the ROW was impressive. In 1991, this group supplied 0.2 MT of oranges valued at \$1,465, less than 0.1% of the total value of oranges imported by the US at that time. By 2002, imports from this group grew to 20,862.12 MT with a value of \$28.25 million (see Tables 3.4.1 and 3.4.2). This made it the major supplier in 2002 with a 51.4% share of the US import market for oranges.

**Table 3.4.1: Volume of Oranges Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	343.25	--	--	--	23.21	3.81	--	26.87	16.63	0.00
ASIA	136967.14	321595.61	331589.70	354088.20	372026.81	309335.09	385717.98	397134.45	139400.23	360330.58	308376.52	354867.83
Europe	1764.17	5830.96	1381.99	2433.37	2316.85	2839.12	1554.19	1767.45	430.47	1151.57	777.51	1706.63
LAC	669.85	340.97	312.31	714.05	454.64	416.27	1063.03	2199.61	768.58	1324.77	1669.03	996.18
CANMEX	89292.34	183078.43	208364.37	193936.94	179708.82	182749.56	206545.33	206517.05	110712.91	181779.30	170776.47	181452.30
ROW	2361.02	7700.60	11824.03	13634.21	14314.50	19002.30	20604.15	21985.31	7166.61	14555.64	13773.84	11726.75
<b>TOTAL</b>	<b>231054.51</b>	<b>518546.56</b>	<b>553815.68</b>	<b>564806.78</b>	<b>568821.63</b>	<b>514342.34</b>	<b>615507.90</b>	<b>629607.68</b>	<b>258478.78</b>	<b>559168.70</b>	<b>495389.98</b>	<b>550749.70</b>
US Imports												
AFRICA	20015.88	--	--	--	305.69	--	307.38	125.84	5542.80	9988.61	17472.77	16506.93
ASIA	4510.47	337.80	1579.56	795.95	455.56	225.53	486.30	757.74	2145.21	1778.56	619.91	411.68
Europe	13086.44	90.42	54.81	151.75	47.45	9.19	1606.83	196.09	18073.02	1071.09	669.05	240.05
LAC	4380.24	4674.37	3058.56	3627.13	3956.94	3914.31	3361.16	3580.75	4849.96	1880.03	5564.44	4229.47
CANMEX	26051.35	2188.31	1703.29	1626.38	7961.75	7636.87	10460.62	8107.09	51174.74	7792.66	15245.03	16466.30
ROW	0.20	2517.19	4555.82	9382.02	5522.97	11550.13	15397.42	25762.22	22138.17	24080.83	16166.39	20862.12
<b>TOTAL</b>	<b>68044.56</b>	<b>9808.08</b>	<b>10952.04</b>	<b>15583.21</b>	<b>18250.36</b>	<b>23336.03</b>	<b>31619.69</b>	<b>38529.72</b>	<b>103923.90</b>	<b>46591.78</b>	<b>55737.58</b>	<b>58716.53</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 3.4.2: Value of US Oranges Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	0.30	--	--	--	0.01	0.01	--	0.05	0.01	--
ASIA	123.81	175.11	172.86	194.91	222.90	182.89	218.88	235.38	98.06	210.59	211.72	216.60
Europe	0.91	2.58	0.81	1.23	1.42	1.58	1.00	1.40	0.41	0.86	0.58	1.09
LAC	0.47	0.19	0.20	0.41	0.37	0.28	0.85	1.38	0.58	0.89	1.68	0.97
CANMEX	62.87	87.43	104.03	94.66	89.20	92.17	105.60	104.70	68.10	82.96	92.15	98.35
ROW	1.51	4.44	6.26	8.05	7.99	11.61	12.02	13.63	4.83	8.88	7.82	8.09
<b>TOTAL</b>	<b>189.57</b>	<b>269.74</b>	<b>284.47</b>	<b>299.27</b>	<b>321.87</b>	<b>288.53</b>	<b>338.37</b>	<b>356.50</b>	<b>171.98</b>	<b>304.22</b>	<b>313.97</b>	<b>325.08</b>
US Imports												
AFRICA	15.30	--	--	--	0.23	--	0.70	0.13	4.89	8.37	17.74	18.03
ASIA	3.68	0.20	1.03	0.67	0.41	0.20	0.35	0.54	1.77	1.54	0.53	0.24
Europe	14.05	0.15	0.07	0.22	0.07	0.03	1.92	0.23	21.44	1.15	0.76	0.24
LAC	1.70	1.49	1.18	1.23	1.41	1.61	1.55	1.36	1.81	0.93	1.03	1.10
CANMEX	18.27	1.08	0.77	0.87	3.52	3.71	4.87	3.44	34.13	3.50	5.47	7.15
ROW	0.00	2.21	7.30	12.37	7.75	21.07	26.56	35.21	29.88	34.42	22.29	28.25
<b>TOTAL</b>	<b>53.00</b>	<b>5.13</b>	<b>10.36</b>	<b>15.35</b>	<b>13.38</b>	<b>26.62</b>	<b>35.95</b>	<b>40.92</b>	<b>93.91</b>	<b>49.91</b>	<b>47.83</b>	<b>55.01</b>

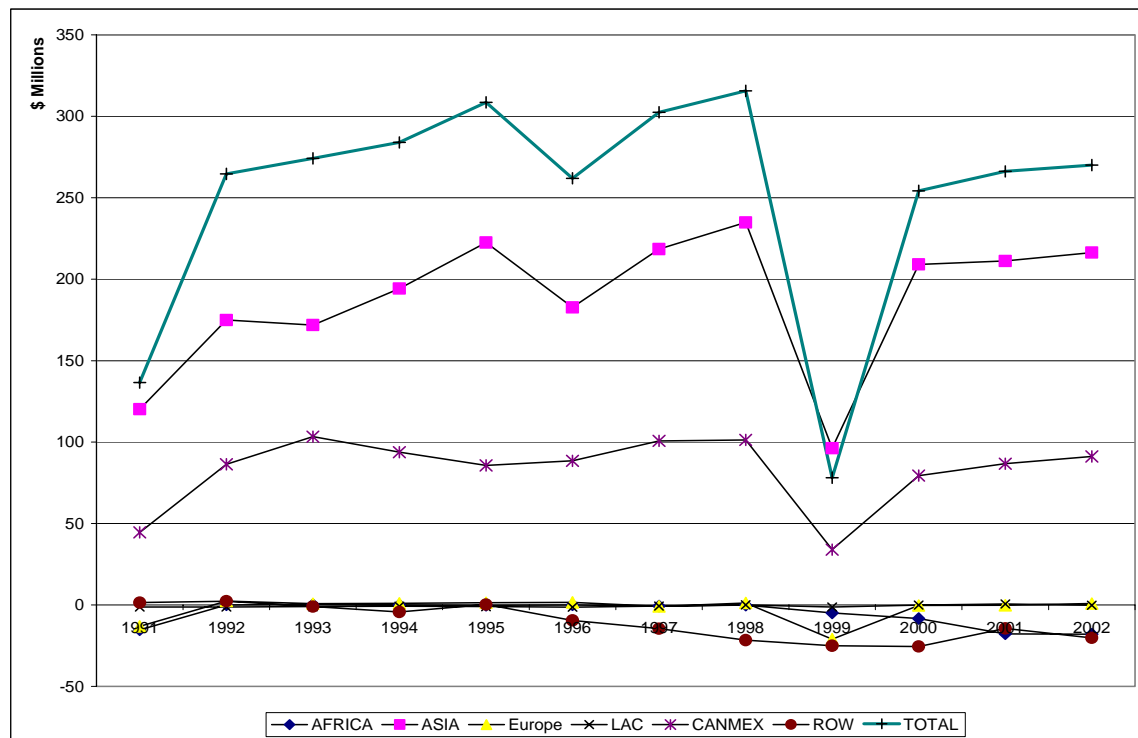
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 3.4.3 Trade Balance

With respect to the trade of oranges, the US showed a net surplus between 1991 and 2002. In 1991, US trade of fresh oranges resulted in a trade surplus of \$137 million, and this increased to \$315.59 million in 1998. The surplus then plunged to \$78.07 million in 1999, corresponding to the fall in exports and increase in imports. The surplus then increased to \$270.07 million in 2002 (see Figure 3.4.1). Changes in the surplus between 1991 and 2002 were influenced mainly by exports to the US, primarily from Asia and CANMEX.

**Figure 3.4.1: Value of US Oranges Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 3.5 Strawberries

### 3.5.1 Export

From 1991 to 2002, export of fresh strawberries from the US expanded from 43,726.94 MT valued at \$79.27 million to 71,719.31 MT valued at \$135.91 million, with the strongest period of growth occurring between 1998 and 2001. Much of this growth resulted from growth in exports to the CANMEX group. In 1991, this group, with a 68.1% value share of strawberry exports from the US, was the largest export market. Strawberry exports to this market from the US grew steadily from 37,057.65 MT valued at \$54.01 million in 1991 to 65,267.58 MT valued at \$110.90 million in 2002 (see Tables 3.5.1 and 3.5.2).

Asia was the next major export market with a 23.3% value share of strawberries exported by the US in 1991, followed by Europe and the ROW with value shares of 5.8% and 2.6% respectively. Strawberry exports to CANMEX and Asia displayed an overall growth. After 1998, however, exports to Asia declined while exports to CANMEX



increased. These changes led to the value share of exports going to Asia decreasing to 14.5% while that of CANMEX increased to 81.6%. The export of strawberries to Europe and the ROW declined through 2002, and as a result, the value share of the US strawberry export received by Europe fell to 3.7% and the ROW's share to less than 0.1%.

### **3.5.2 Import**

In 1991 the US imported 14,264.32 MT of fresh strawberries valued at \$20.18 million. By 2002, this increased to 40,791.28 MT valued at \$61.99 million, an approximate 186.0% increase in volume at an average rate of 17.2% per annum and 207.2% increase in value at an average rate of 19.9% per annum. Despite the overall increasing trend, in 1997 there was a sharp decline as the level of strawberries imported fell to 14,478.98 MT valued at \$28.49 million (see Tables 3.5.1 and 3.5.2).

CANMEX, the LAC and the ROW were the main groups that supplied fresh strawberries to the US. In 1991, CANMEX, supplying 13,076.23 MT valued at \$16.59 million (see Tables 3.4.4 and 3.4.2), was the largest supplier, with a value share of 82.2% of US import market for this commodity. The LAC, with a 13.1% value share, was the next main supplier, followed by the ROW with 4.6%.

By 2002, imports from CANMEX grew to 40,069.94 MT with a value of \$57.42 million, and imports from the ROW grew from 172.45 MT in 1991 with a value of \$0.94 million to 659.68 MT in 2002 valued at \$4.45 million. Imports from the LAC, however, declined from 1,015.56 MT valued at \$2.64 million in 1991 to 48.09 MT in 2002 valued at \$0.06 million (see Tables 3.5.1 and 3.5.2). Dwindling imports from the LAC and increasing imports from the ROW and CANMEX led to a shift of market shares by 2002. The value share held by the LAC fell to 0.1% while that of the ROW rose to 7.2%. CANMEX, with a value share of 92.6%, held its position as the major supplier of fresh strawberries to the US.

**Table 3.5.1: Volume of Strawberries Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	2.13	--	32.52	1.75	--	--	--	4.81	--	--
ASIA	4050.07	3998.76	4379.29	5343.55	7315.37	6762.38	7087.44	5861.10	6066.06	5758.01	4326.62	4768.57
Europe	1825.64	4075.84	2329.37	5747.45	2739.57	3170.63	3729.99	3357.21	1876.01	853.56	379.23	1533.54
LAC	25.68	--	57.95	117.99	124.65	26.75	58.82	128.92	9.19	33.49	90.36	138.56
CANMEX	37057.65	38148.31	39309.60	45783.95	40430.81	42619.41	41677.55	40271.83	49443.06	56420.69	53709.32	65267.58
ROW	767.90	598.90	333.31	456.70	278.19	262.38	262.38	724.49	105.96	23.91	48.69	11.06
<b>TOTAL</b>	<b>43726.94</b>	<b>46821.81</b>	<b>46411.64</b>	<b>57449.65</b>	<b>50921.10</b>	<b>52843.30</b>	<b>52816.17</b>	<b>50343.54</b>	<b>57500.28</b>	<b>63094.47</b>	<b>58554.21</b>	<b>71719.31</b>
US Imports												
AFRICA	--	--	--	--	0.81	--	--	--	--	--	20.00	--
ASIA	--	1.38	--	--	4.44	2.00	--	20.00	3.25	--	18.30	7.94
Europe	0.08	0.19	--	1.57	--	1.20	0.60	52.32	6.25	45.39	4.25	5.63
LAC	1015.56	1103.12	985.53	340.62	267.39	118.04	37.81	37.90	41.48	54.17	27.19	48.09
CANMEX	13076.23	9242.38	12768.66	18978.77	25962.12	29844.50	13831.83	25427.90	42370.99	33594.79	31544.17	40069.94
ROW	172.45	449.44	473.06	495.44	449.37	564.02	608.74	837.47	579.18	886.05	447.49	659.68
<b>TOTAL</b>	<b>14264.32</b>	<b>10796.50</b>	<b>14227.25</b>	<b>19816.39</b>	<b>26684.14</b>	<b>30529.76</b>	<b>14478.98</b>	<b>26375.59</b>	<b>43001.14</b>	<b>34580.40</b>	<b>32061.39</b>	<b>40791.28</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 3.5.2: Value of Strawberries Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	0.01	--	0.11	0.01	--	--	--	0.01	--	--
ASIA	18.49	20.08	22.47	24.75	25.99	26.18	26.24	20.59	22.20	22.86	19.60	19.68
Europe	4.62	11.92	5.00	11.87	6.43	8.96	9.35	8.17	5.48	3.34	1.01	4.97
LAC	0.10	--	0.12	0.27	0.32	0.07	0.17	0.27	0.03	0.02	0.28	0.34
CANMEX	54.01	51.77	50.95	58.55	53.98	54.63	60.88	62.70	79.61	92.16	93.57	110.90
ROW	2.05	1.71	0.89	1.19	0.93	0.71	0.64	1.33	0.32	0.15	0.15	0.02
<b>TOTAL</b>	<b>79.27</b>	<b>85.49</b>	<b>79.45</b>	<b>96.63</b>	<b>87.77</b>	<b>90.55</b>	<b>97.27</b>	<b>93.05</b>	<b>107.64</b>	<b>118.54</b>	<b>114.61</b>	<b>135.91</b>
US Imports												
AFRICA	--	--	--	--	0.01	--	--	--	--	--	0.02	--
ASIA	--	0.00	--	--	0.01	0.00	--	0.02	0.01	--	0.04	0.02
Europe	0.00	0.00	--	0.01	--	0.02	0.01	0.44	0.06	0.45	0.03	0.05
LAC	2.64	3.45	2.92	0.82	0.66	0.31	0.14	0.16	0.16	0.19	0.11	0.06
CANMEX	16.59	11.48	18.48	32.61	44.61	54.07	24.40	64.31	61.75	49.72	44.92	57.42
ROW	0.94	2.29	2.13	2.82	2.67	3.55	3.94	5.62	3.86	6.25	2.71	4.45
<b>TOTAL</b>	<b>20.18</b>	<b>17.23</b>	<b>23.53</b>	<b>36.26</b>	<b>47.95</b>	<b>57.96</b>	<b>28.49</b>	<b>70.55</b>	<b>65.83</b>	<b>56.60</b>	<b>47.84</b>	<b>61.99</b>

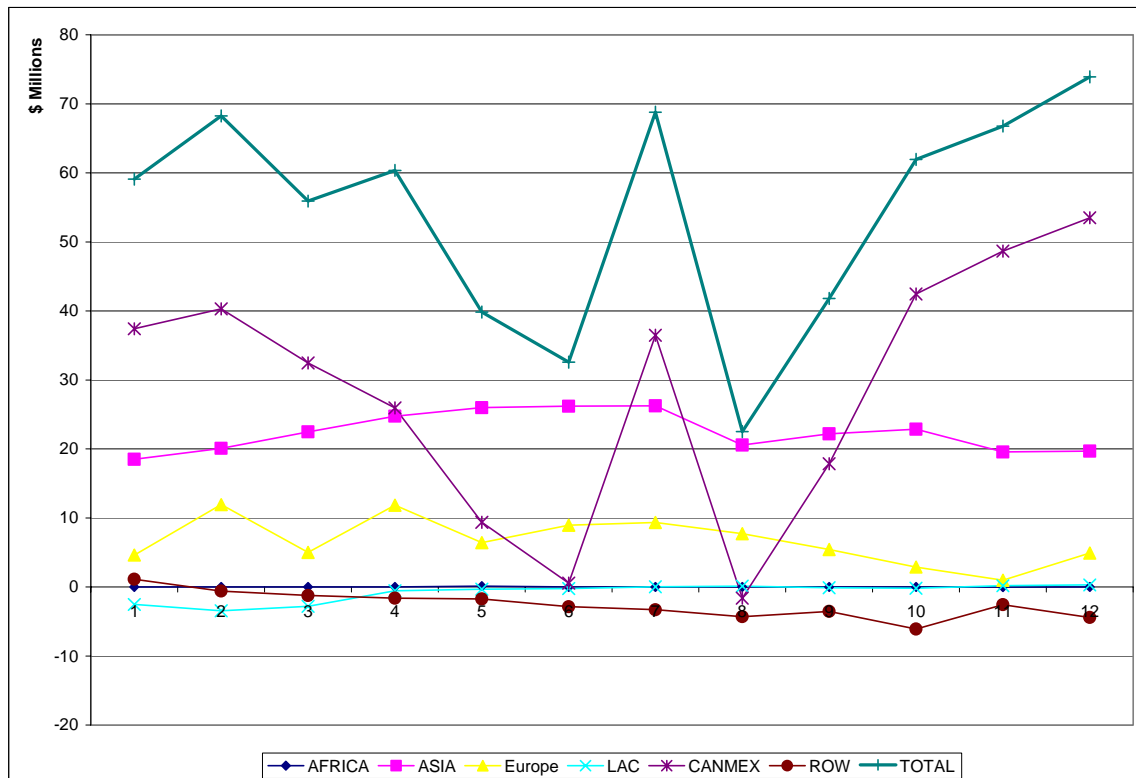
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 3.5.3 Trade balance

With the exception of the LAC and the ROW, the US maintained a trade surplus with its trading partners with respect to the trade of strawberries. As illustrated in Figure 3.5.1, the net trade surplus was influenced mainly by the changes in the trade surplus with CANMEX. Between 1991 and 1998, the net trade surplus declined from \$59.1 million to \$22.49 million as imports from CANMEX increased. A sharp drop in imports led to the spike in the net surplus as it jumped to \$68.78 million in 1997. After 1998, the surplus increased to \$73.91 million as imports from CANMEX fell and exports to this group increased at a faster rate.

**Figure 3.5.1: Value of US Strawberries Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 3.6 Tangerines

### 3.6.1 Export

In 1991 the US exported 20,795 MT of tangerines valued at \$24.78 million (see Tables 3.6.1 and 3.6.2). Between 1991 and 2000, there was an upward trend with exports peaking in 2000 at 40,033.62 MT valued at \$36.35 million. After 2000 there was a period of decline, and by 2002, the export of Tangerines declined to 17,630.79 MT with a value of \$16.41 million.

In 1991 CANMEX was the major market for US tangerines receiving 19,017.29 MT valued at \$23.36 million. This accounted for 94.3% of the total value of tangerines exported by the US at that time. Exports to CANMEX increased in 1992 to 26,176.41 MT valued at \$25.71 million. Between 1992 and 2001, there were relatively small fluctuations in value and volume; however, at the end of that period there was very little change in the level of tangerine exports to CANMEX from the US. In 2002, exports received by this market fell to 14,711.71 MT valued at \$13.31 million, which was lower

than in 1991(see Tables 3.6.1 and 3.6.2). With this decline, CANMEX's value share of tangerine exported by the US fell to 81.1%.

In 1991, Europe, receiving 1,664.15 MT of tangerines valued at \$1.25 million, had a 5.1% value share of Tangerine exports from the US. Exports to this market also showed a downward trend, and by 2002 exports to Europe fell to 175.31 MT valued at \$0.35 million. With this decline, the value share of exports received fell to 2.1%. Asia was the only market that displayed an overall growth moving from 89.76 MT in 1991, valued at \$0.12 million, to 2,222.98 MT in 2002, valued at \$2.32 million (see Tables 3.6.1 and 3.6.2). With this increase in exports and declining exports to the major markets, the share of US exports to Asia grew from 0.5% in 1991 to 14.1% in 2002.

### **3.6.2 Import**

Between 1991 and 2002, the importation of tangerines by the US grew in volume by 218.4%, from 19,480.45 MT to 62,024.26 MT, at an average annual rate of 16.1%. Value increased by 623.9% from \$16.73 million in 1991 to \$121.08 million in 2002 at an average rate of 25.2% per annum. There was relatively very little growth between 1991 and 1995 where the volume of tangerine imported increased from 19,480.45 MT, valued at \$16.73 million, to 19,061.62 MT valued at \$21.08 million. The majority of the import growth occurred after 1995, and by 2000, US imports of tangerines peaked at 96,296.22 MT valued at \$152.67 million. Between 2000 and 2002, imports then declined to 62,024.26 MT with a value of \$121.08 million (see Tables 3.6.1 and 3.6.2).

Africa, with 33.6%, had the largest share of the tangerine import market of the US in 1991. Despite the growth of tangerine imports from this group, particularly between 1999 and 2002, its value share of the US import market for tangerines fell to 21.7% in 2002. This loss of share was due to increased importation of tangerines from Europe. In 1991, Europe had 30.9% of the US import market for tangerines, and, by 2002, this share increased to 70.5%. CANMEX, with 22.0% was the third largest supplier of tangerines in 1991. Between 1991 and 2002, imports from CANMEX fell, and this, coupled with increased imports from the other groups, led to its value share of the US import market for tangerines falling to 1.2% in 2002.

**Table 3.6.1: Volume of Tangerines Exported and Imported by the U.S., 1991 -2002 (MT)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	89.76	1288.90	1673.67	5814.42	5124.45	1917.48	6356.37	8901.43	1817.37	14404.79	1898.09	2222.98
Europe	1644.15	6530.36	1857.31	2823.11	1298.85	2465.06	1953.32	956.44	--	473.30	238.24	175.31
LAC	19.19	11.88	5.94	237.09	20.81	255.61	13.74	173.84	18.75	111.81	134.91	156.23
CANMEX	19017.29	26176.41	25996.55	24573.93	26018.30	26743.98	23935.31	23080.30	24224.13	24342.65	23179.05	14711.71
ROW	25.18	167.52	112.47	1033.25	556.10	1018.59	1532.37	902.80	658.00	701.07	606.75	364.56
<b>TOTAL</b>	<b>20795.56</b>	<b>34175.06</b>	<b>29645.94</b>	<b>34481.80</b>	<b>33018.50</b>	<b>32400.71</b>	<b>33791.12</b>	<b>34014.82</b>	<b>26718.24</b>	<b>40033.62</b>	<b>26057.04</b>	<b>17630.79</b>
US Imports												
AFRICA	4445.32	2896.06	3969.38	2194.44	54.00	437.00	779.25	1205.06	3882.06	4345.56	4928.02	14345.69
ASIA	943.93	625.62	662.50	314.06	328.12	394.46	922.88	850.03	985.69	917.77	2076.62	1832.85
Europe	4524.57	5969.82	7948.34	13858.76	14164.85	23127.99	34584.56	35573.95	77690.00	83785.44	59780.62	38858.91
LAC	814.29	896.58	893.98	443.41	679.77	478.14	478.84	726.06	1451.84	613.71	590.13	547.69
CANMEX	8752.34	7723.56	4044.31	4039.25	3833.25	2595.94	4198.18	2864.09	3955.38	4332.62	3903.25	3665.38
ROW	--	--	--	--	1.63	370.19	1146.00	1948.38	2488.94	2301.13	4086.31	2773.75
<b>TOTAL</b>	<b>19480.45</b>	<b>18111.64</b>	<b>17518.50</b>	<b>20849.92</b>	<b>19061.62</b>	<b>27403.72</b>	<b>42109.71</b>	<b>43167.57</b>	<b>90453.90</b>	<b>96296.22</b>	<b>75364.94</b>	<b>62024.26</b>

-- Represents data not reported

Source: United Nations COMTRADE database

**Table 3.6.2: Value of Tangerines Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	--	--	--	--	--	--	--	--	--	--
ASIA	0.12	1.24	1.00	3.62	4.69	1.74	5.59	7.68	2.10	9.14	1.36	2.32
Europe	1.25	4.60	1.20	1.56	0.81	1.53	1.35	0.59	--	0.29	0.16	0.35
LAC	0.02	0.03	0.01	0.26	0.02	0.15	0.04	0.17	0.02	0.11	0.14	0.17
CANMEX	23.36	25.71	34.17	24.69	28.41	32.66	24.68	23.15	28.39	26.36	27.09	13.31
ROW	0.03	0.25	0.09	0.72	0.43	0.82	1.23	0.54	0.42	0.46	0.38	0.26
<b>TOTAL</b>	<b>24.78</b>	<b>31.83</b>	<b>36.47</b>	<b>30.84</b>	<b>34.36</b>	<b>36.91</b>	<b>32.89</b>	<b>32.13</b>	<b>30.92</b>	<b>36.35</b>	<b>29.11</b>	<b>16.41</b>
US Imports												
AFRICA	5.46	2.78	3.94	2.09	0.05	0.44	1.09	1.67	5.48	3.50	8.99	26.33
ASIA	2.03	1.43	1.23	0.70	0.69	0.82	1.29	1.26	1.37	1.00	2.05	2.19
Europe	5.18	9.07	11.37	17.89	18.19	31.38	49.50	47.98	112.60	141.46	109.07	85.32
LAC	0.39	0.56	0.57	0.28	0.34	0.26	0.33	0.45	0.79	0.37	0.38	0.31
CANMEX	3.68	4.04	1.76	1.69	1.81	1.29	1.63	1.10	1.61	1.66	1.47	1.50
ROW	--	--	--	--	0.00	0.49	1.50	2.61	4.41	4.68	7.26	5.42
<b>TOTAL</b>	<b>16.73</b>	<b>17.87</b>	<b>18.88</b>	<b>22.64</b>	<b>21.08</b>	<b>34.68</b>	<b>55.34</b>	<b>55.06</b>	<b>126.26</b>	<b>152.67</b>	<b>129.23</b>	<b>121.08</b>

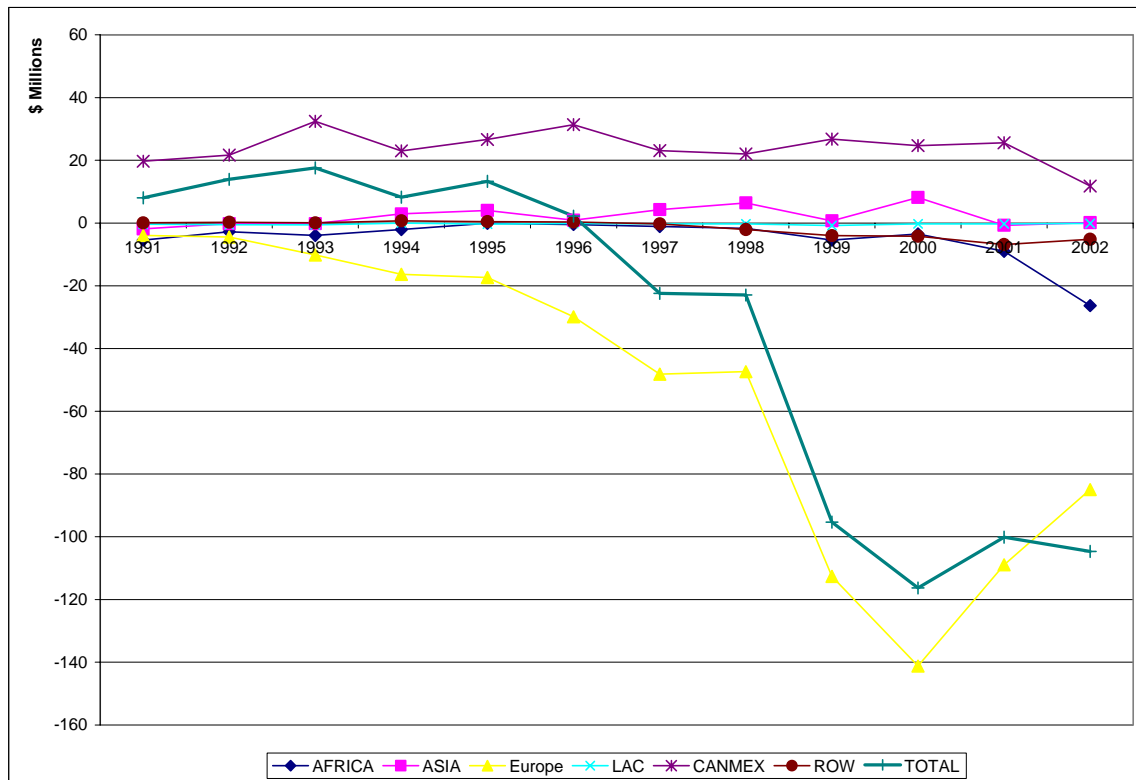
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 3.6.3 Trade Balance

In 1991, the US, with respect to the trade of fresh tangerines, showed a net trade surplus of \$8.05 million. The trade balance declined, and by 2002, the surplus decreased to a deficit of \$104.67 million. As shown in figure 3.6.1, an increasing trade deficit with Europe was the main reason behind the large fall in the trade balance between 1991 and 2002. The increasing deficit with Europe resulted from the increased imports and decreased exports to this group. CANMEX was the only group with which the US had a constant trade surplus.

**Figure 3.6.1: Value of US Tangerines Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 4 Foliage and Floriculture

### 4.1 Fresh Cut Flowers

#### 4.1.1 Export

Export of cut flowers from the US showed an increasing trend throughout the period of study. Overall, export value grew by 79.6% at an average annual rate of 5.8% from \$26.64 million in 1991 to \$47.85 million in 2002 (see Table 4.1.1). Much of this growth was due to the expansion of exports to CANMEX, which was the major market for fresh flower exported by the US.

Based on value, in 1991 CANMEX was the major destination receiving 71.4% of the fresh cut flowers exported by the US. Asia, the next major market received 15.3%, and the third major market, with a value share of 10.6%, was Europe. Between 1991 and 2002, CANMEX was the only major trading group to which the exports of fresh cut flowers from the US increased. By 2002, the value share of US exports to CANMEX



increased to 94.7% while Asia's share fell to 4.0% and Europe's to 0.4%. Exports to the LAC, a lesser market, also showed strong growth moving between 1991 and 2002 with its value share of fresh flowers exported by the US increasing from 0.1% in 1991 to 0.8% in 2002.

#### 4.1.2 Import

In 1991, US import of fresh cut flowers totaled \$390.59 million. Between 1991 and 2002, the importation of fresh cut flowers to the US grew by 71.8% at an average rate of 5.3% percent per annum to attain a value of \$671.11 million in 2002 (see Table 4.1.1). Much of this growth reflected the growth of fresh cut flower imported from the LAC.

In 1991, the LAC had a 75% value share of the US import market for cut flowers while Europe had 17%, CANMEX held 5%, and Asia accounted for 2%. Between 1991 and 2002, supplies from all groups increased. However, imports from the LAC and CANMEX grew at a faster rate. The result was that at the end of the period the share of the market held by the LAC increased to 76 % while that of CANMEX increased to 6%. Asia's market share remained the same while that of the Europe fell to 15%.

**Table 4.1.1: Value of Fresh Cut Flowers Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	--	0.02	--	0.00	0.00	--	--	0.04	--	--	--
ASIA	4.06	4.08	6.00	5.60	6.37	4.83	4.01	3.65	3.72	4.33	3.01	1.90
Europe	2.83	1.37	2.03	1.63	1.92	9.41	9.27	4.87	3.03	1.14	0.46	0.18
LAC	0.09	0.20	0.26	0.26	0.17	0.24	0.21	0.57	0.49	0.37	0.57	0.37
CANMEX	19.02	21.93	25.71	27.39	26.64	27.54	33.90	36.12	37.59	40.23	44.15	45.29
ROW	0.63	0.68	0.86	0.80	0.61	0.66	0.79	0.74	0.26	0.04	0.20	0.10
<b>TOTAL</b>	<b>26.64</b>	<b>28.24</b>	<b>34.88</b>	<b>35.67</b>	<b>35.71</b>	<b>42.68</b>	<b>48.18</b>	<b>45.95</b>	<b>45.13</b>	<b>46.11</b>	<b>48.40</b>	<b>47.85</b>
US Imports												
AFRICA	1.54	1.52	1.98	1.67	1.90	2.32	3.33	4.13	3.09	2.43	2.30	3.07
ASIA	9.31	8.04	8.14	8.49	11.05	10.61	10.86	10.86	9.51	13.12	12.66	14.51
Europe	64.86	66.93	71.87	79.21	87.75	84.64	88.90	101.73	89.61	99.93	95.72	100.90
LAC	293.81	328.47	353.34	389.37	470.62	550.04	590.73	586.70	571.66	590.52	541.45	506.58
CANMEX	17.84	14.47	17.00	19.67	28.11	26.95	32.47	34.63	34.92	40.16	39.95	38.45
ROW	3.23	4.13	4.03	4.90	4.93	5.27	6.11	6.68	7.35	7.81	8.40	7.59
<b>TOTAL</b>	<b>390.59</b>	<b>423.57</b>	<b>456.36</b>	<b>503.30</b>	<b>604.36</b>	<b>679.82</b>	<b>732.39</b>	<b>744.74</b>	<b>716.15</b>	<b>753.96</b>	<b>700.47</b>	<b>671.11</b>

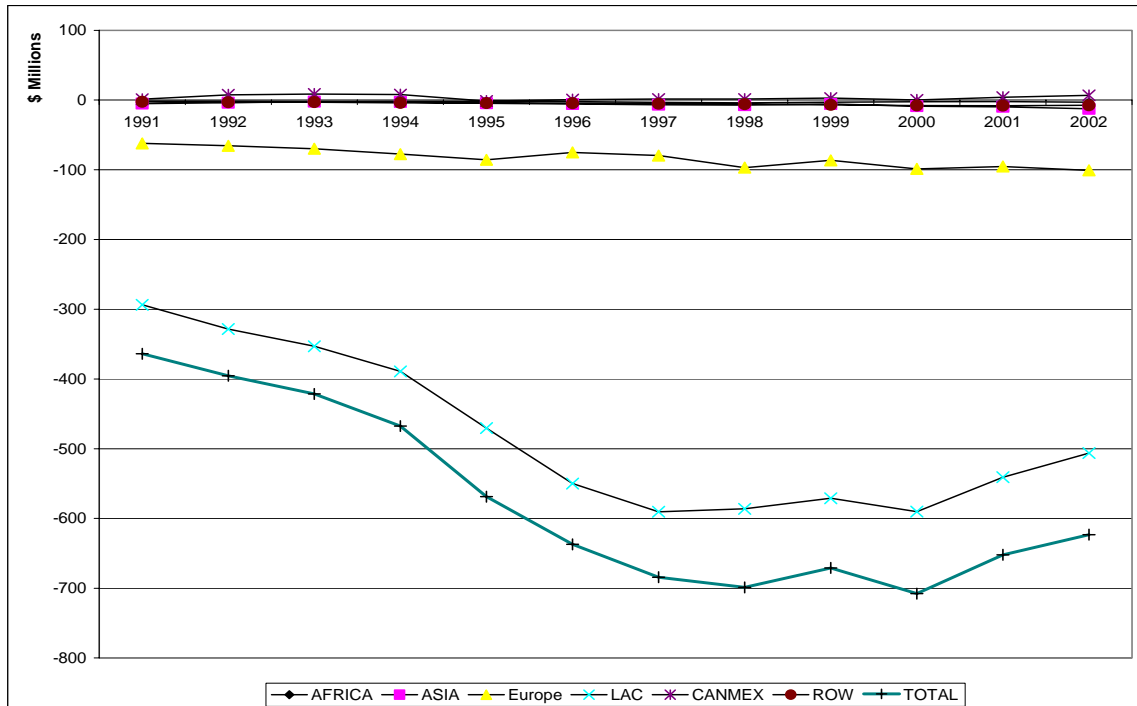
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 4.1.3 Trade Balance

In 1991, the net trade balance resulting from the trade of fresh cut flowers showed a deficit of \$363.96 million. With imports growing faster than exports, this deficit increased, and by 2002, it stood at \$623.26 million. The growth of the trade deficit reflected the growth in the trade deficit with LAC as imports from this group grew (see figure 4.1.1).

Figure 4.1.1: Value of US Fresh Cut Flowers Trade Balance with Trading Groups, 1991 - 2002



Source: United Nations COMTRADE database

## 4.2 Dried Cut Flowers

### 4.2.1 Export

In 1991, the value of dried cut flower exported by the US was \$11.99 million, and, though it increased to approximately \$18.60 million in 1996, by 2002 the value of exports fell to \$7.69 million (see Table 4.2.1). Based on value, the major markets for dried cut flowers exported by the US in 1991 were CANMEX, which received 45.4% of the exports, Europe, which received 40.3% and Asia with 10.3%. Between 1991 and 2002, there was an overall growth in export value to CANMEX while export value to all other major trading groups displayed an overall decline. As a result, by 2001, exports of dried cut flowers to CANMEX accounted for 79.7% of the total value exported by the

US. The value share of exports to Europe fell to 10.2% while that destined for Asia fell to 6.6%.

#### 4.2.2 Import

In 1991, the US imported \$12.90 million worth of dried cut flowers. Overall imports showed an increasing trend up to 1999 when US imports of dried cut flowers peaked at \$18.71 million. After 1999, imports slowly declined to approximately \$12.90 million by 2002 (see Table 4.2.1).

In 1991, Europe, with a 40.4% value share of US imported dried cut flower market, was the major supplier. Other major suppliers were Asia with a 23.1% value share and CANMEX with a value share of 22.2%. Between 1991 and 2002, the value of imports from Europe fell while the value of imports from CANMEX increased.

**Table 4.2.1: Value of Dried Cut Flowers Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	0.00	0.00	0.00	0.05	0.00	--	--	--	--	--	--
ASIA	1.23	1.41	1.14	1.27	1.49	1.56	1.06	0.87	1.08	1.24	0.82	0.50
EU	4.83	3.75	4.55	3.57	2.27	1.27	1.17	1.59	1.64	1.27	1.40	0.78
LAC	0.21	0.74	0.58	0.48	0.46	0.92	0.72	1.30	0.42	0.26	0.27	0.23
NAFTA	5.44	4.82	6.73	7.94	12.48	14.84	13.47	10.57	9.01	9.31	7.04	6.13
ROW	0.28	0.20	0.06	0.12	0.02	0.00	0.03	0.14	0.03	0.01	0.01	0.04
<b>TOTAL</b>	<b>11.99</b>	<b>10.91</b>	<b>13.07</b>	<b>13.38</b>	<b>16.76</b>	<b>18.60</b>	<b>16.45</b>	<b>14.47</b>	<b>12.18</b>	<b>12.09</b>	<b>9.54</b>	<b>7.69</b>
US Imports												
AFRICA	0.26	0.20	0.21	0.24	0.19	0.16	0.31	0.29	0.30	0.24	0.23	0.64
ASIA	2.97	3.53	3.73	5.25	7.13	6.59	4.05	3.71	4.40	4.73	4.67	3.40
EU	5.22	5.24	4.61	4.47	4.77	4.49	4.01	3.89	3.18	1.81	0.83	0.87
LAC	1.04	2.85	0.26	0.26	0.39	0.29	0.39	0.60	1.03	0.71	0.48	0.45
NAFTA	2.86	0.60	3.03	3.05	5.32	4.89	8.04	8.05	9.42	9.03	8.89	7.40
ROW	0.56	0.85	0.88	0.80	0.62	0.35	0.33	0.23	0.39	0.31	0.21	0.15
<b>TOTAL</b>	<b>12.90</b>	<b>13.27</b>	<b>12.73</b>	<b>14.07</b>	<b>18.43</b>	<b>16.75</b>	<b>17.12</b>	<b>16.77</b>	<b>18.71</b>	<b>16.84</b>	<b>15.32</b>	<b>12.90</b>

-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

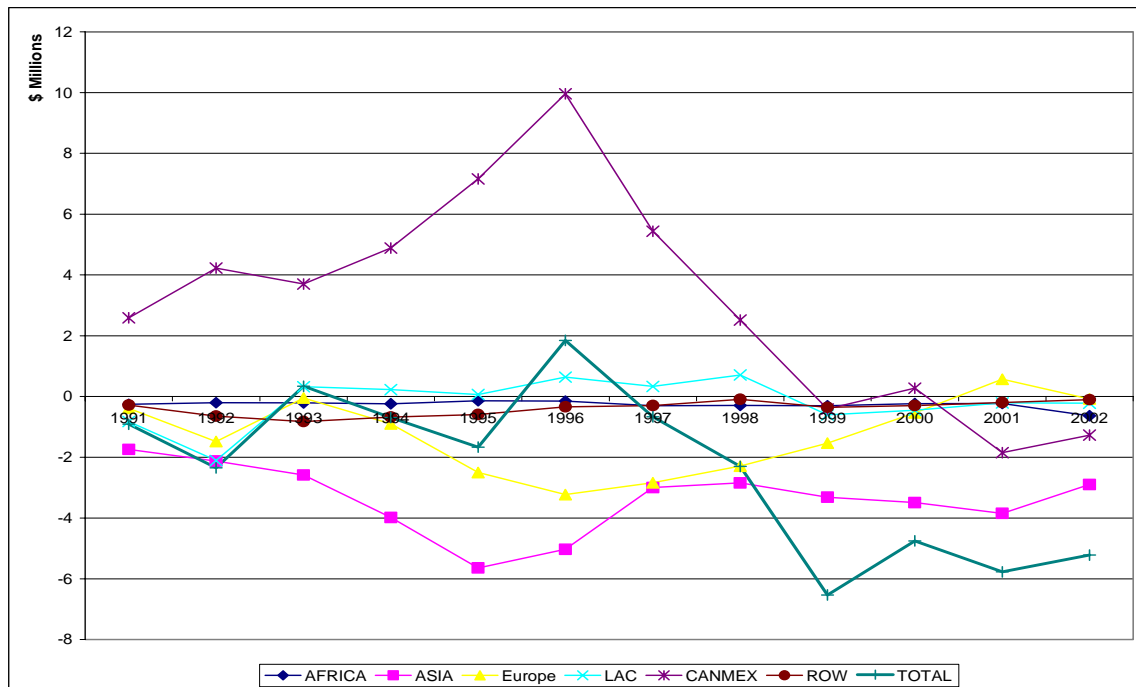
Import values from Asia increased substantially between 1991 and 1995. This period of growth was followed by a three-year period of significant decline. After 1998, import values to Asia showed moderate growth up until 2001 then decreased in 2002. The value of imports in 2002 was higher than in 1991. With these changes, by 2002 the market shares shifted. The value share of the US import market for dried cut flowers held

by CANMEX increased to 57.3%, and Asia's share grew to 26.4%. Europe recorded the greatest loss with its share falling from 40.4% to 6.7%.

### 4.2.3 Trade Balance

With respect to the trade of dried cut flowers, the US had an overall decline in trade balance between 1991 and 2002. In 1991, there was a trade deficit of approximately \$0.92 million. As seen in Figure 4.2.1, the trade balance had an upward trend cycling between a surplus and a deficit between 1991 and 1996 and ended with a net surplus of \$1.84 million. The overall growth was supported mainly by the increasing surplus that resulted from trade with CANMEX, while the fluctuations can be attributed to fluctuations in the trade deficit with Europe and Asia (see Figure 4.2.1). After 1996, the decreasing trade surplus with CANMEX along with the increasing trade deficit with Asia led to the overall decrease in the trade balance to a deficit of \$5.22 million.

Figure 4.2.1: Value of US Dried Cut Flowers Trade Balance with Trading Groups, 1991 - 2002



Source: United Nations COMTRADE database

### **4.3 Foliage (fresh)**

#### **4.3.1 Export**

Although the value of US exports of foliage increased by 35.1% between 1991 and 2002, the growth was not constant. In 1991, exports totaled \$55.66 million, and this fell to a low of approximately \$45.98 million in 1995 after peaking in 1993 at \$66.90 million. After this, export value showed an overall increase to \$75.21 million in 2002 (see Table 4.3.1). This pattern of growth mirrored the growth of exports to Europe, which was the major market in 1991 with a 75.5% value share of the foliage exported by the US. By 2002 Europe remained the major market with the share of exports received showing a slight fall to 72.8%. This fall in share could be attributed to the growth of exports to CANMEX.

Despite dips in 1992 and 1998, the value of exports to CANMEX showed a strong upward trend between 1991 and 2001, growing from \$10.31 million to \$18.01 million. Between 2001 and 2002, the value of exports to CANMEX fell slightly to \$17.04 million (see Table 4.3.1). This resulted in an increase in CANMEX's value share from 18.5% of fresh foliage exports from the US in 1991 to 22.7% of the exports in 2002.

#### **4.3.2 Import**

In 1991, the value of fresh foliage imported by the US was \$34.49 million and this grew steadily to \$71.51 million by 2002. This growth reflected the growth of imports from all trading groups. In 1991, CANMEX had 92.9% of the value of the US fresh foliage import market. Despite the overall increase in the value of imports from this group, moving from \$32.02 million in 1991 to \$51.35 million in 2002, by 2002 their market value share fell to 71.8% (see Table 4.3.1). This fall was a result of the steady growth of imports from the LAC, Europe, and Asia. In 1991, the LAC had a 4.8% value share of the US import market, Europe had 1.9%, and Asia had 0.3%. Despite slight declines in 1994, 1997, and 2002, the value of imports from the LAC increased from \$1.65 million in 1991 to \$9.40 million in 2002. This resulted in the group's value share of the US import market increasing to 13.2%. Overall growth in the value of imports from Europe and Asia also resulted in their value share of the US import market increasing to 11.8% and 2.7% respectively.

**Table 4.3.1: Value of Foliage (fresh) Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	--	0.00	--	--	0.11	--	0.01	--	--	0.01	0.38	0.03
ASIA	1.53	2.07	1.88	2.02	2.33	1.58	1.31	1.05	0.91	1.17	1.56	2.10
Europe	42.01	42.88	52.75	34.45	31.32	38.29	40.36	36.70	35.81	38.82	53.08	54.78
LAC	0.38	0.34	0.46	0.24	0.32	0.37	0.69	0.42	0.51	0.63	0.91	0.53
CANMEX	10.31	8.43	10.35	9.87	10.68	11.82	14.04	11.14	12.97	17.87	18.01	17.04
ROW	1.44	1.40	1.46	1.26	1.22	0.96	0.93	0.70	0.66	0.67	0.55	0.72
<b>TOTAL</b>	<b>55.66</b>	<b>55.12</b>	<b>66.90</b>	<b>47.84</b>	<b>45.98</b>	<b>53.01</b>	<b>57.34</b>	<b>50.00</b>	<b>50.86</b>	<b>59.17</b>	<b>74.50</b>	<b>75.21</b>
US Imports												
AFRICA	0.03	0.03	0.03	0.09	0.06	0.15	0.06	0.07	0.04	0.08	0.04	0.14
ASIA	0.10	0.36	0.71	0.76	0.79	1.20	1.49	0.87	0.68	1.11	2.10	1.93
Europe	0.67	1.14	1.75	2.46	3.56	4.40	4.90	6.11	6.14	5.85	7.93	8.49
LAC	1.65	2.14	3.06	2.31	2.37	4.26	4.02	5.41	8.60	10.56	10.97	9.40
CANMEX	32.02	31.04	35.12	34.84	38.80	42.18	44.85	47.32	49.93	52.42	52.84	51.35
ROW	0.01	0.03	0.06	0.05	0.12	0.12	0.16	0.13	0.13	0.16	0.23	0.20
<b>TOTAL</b>	<b>34.49</b>	<b>34.73</b>	<b>40.73</b>	<b>40.52</b>	<b>45.71</b>	<b>52.31</b>	<b>55.49</b>	<b>59.91</b>	<b>65.52</b>	<b>70.17</b>	<b>74.11</b>	<b>71.51</b>

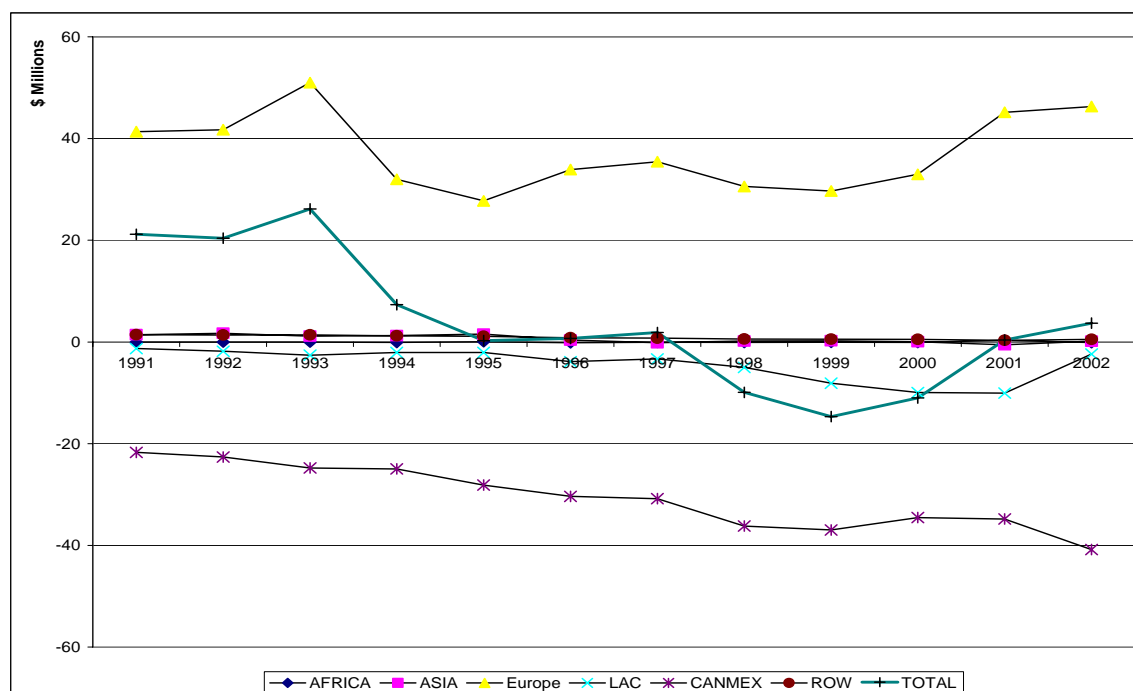
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### **4.3.3 Trade Balance**

In 1991, the trade balance resulting from the trade of foliage showed a surplus of \$21.18 million supported mainly by the surplus that existed due to trade with Europe. With imports, particularly from CANMEX and the LAC, growing faster than exports from CANMEX and Europe, the trade balance decreased. By 1999, it had declined to a deficit of \$14.66 million. With the fall in imports from the LAC and the growth of exports to Europe, the trade balance improved after 1999, increasing to a surplus of \$3.70 million in 2002.

**Figure 4.3.1: Value of US Foliage (fresh) Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE database

## 4.4 Foliage (not fresh)

### 4.4.1 Export

US export of foliage (not fresh) showed an increasing trend between 1991 and 1998, moving from \$7.08 million to \$18.88 million. Exports then decreased to \$6.46 million by 2002. Overall, the export level in 2002 was 8.7% lower than in 1991. In 1991, CANMEX, with a 45.7% value share of US exports of foliage (not fresh), Europe with a 31.9% share and Asia, with 20.2%, were the major markets. With an overall growth in exports to CANMEX, the decline of exports to Europe, and relatively little growth in exports to Asia, by 2002 the value shares changed. The value share of US exports of foliage (not fresh) going to CANMEX increased to 55.4% while the shares of the exports to Europe and Asia fell to 26.6% and 14.7% respectively.

### 4.4.2 Import

US imports of foliage (not fresh) showed an upward trend between 1991 and 2002. The value of imports increased overall by 75.1% from \$11.93 million to \$20.90 million (See Table 4.4.1). This increase was due mainly to increased imports from Asia. This group was the main supplier of foliage (not fresh) to the US market. In 1991, The

US imports of this commodity from Asia totaled \$6.13 million. This represented 51% of the total value of foliage (not fresh) imported by the US at that time. The value of imports from Asia grew and, by 2002, stood at \$12.62 million, 60.4% of the total value of foliage (not fresh) imported by the US at that time. In 1991, the remainder of the US import market was divided as follows: Europe had a value share of 20.2%, the LAC had a 9.1% share, CANMEX had 7.7%, ROW had 6.9%, and Africa had 4.7%.

The growth in the value of exports from Europe showed an erratic pattern moving from \$2.41 million in 1991 to \$3.03 million in 2002. Despite this moderate growth, Europe's value share of the US import market fell to 14.5%. This fall in share resulted from the growth experienced by Asia. In 2002, the value of imports from CANMEX and Africa also increased, relative to 1991, and the value shares held by these groups increased to 9.3% and 7.8% respectively. The LAC and the ROW lost market shares by 2002 due to an overall fall in the value of imports from these groups. The proportion of the market supplied by the LAC and the ROW fell to 4.3 and 3.7% respectively.

**Table 4.4.1: Value of Foliage (not fresh) Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	0.01	--	--	--	--	0.09	--	--	0.00	--	--	0.03
ASIA	1.43	1.27	1.18	1.62	1.02	1.24	0.59	1.18	0.80	0.94	0.87	0.95
Europe	2.26	3.74	3.10	2.00	1.80	2.84	2.74	7.29	4.15	1.21	3.65	1.72
LAC	0.12	0.16	0.26	0.79	0.48	0.25	0.32	0.54	0.57	0.83	0.26	0.18
CANMEX	3.23	5.59	5.62	9.59	8.32	7.93	10.39	9.75	9.22	6.42	6.01	3.58
ROW	0.03	0.19	0.31	0.16	0.22	0.32	0.49	0.13	0.02	0.10	0.09	0.01
<b>TOTAL</b>	<b>7.08</b>	<b>10.96</b>	<b>10.47</b>	<b>14.16</b>	<b>11.85</b>	<b>12.67</b>	<b>14.53</b>	<b>18.88</b>	<b>14.76</b>	<b>9.50</b>	<b>10.88</b>	<b>6.46</b>
US Imports												
AFRICA	0.56	0.61	0.70	1.48	1.43	1.23	1.71	1.40	1.31	1.48	1.25	1.63
ASIA	6.13	8.31	7.55	7.37	10.42	11.61	10.97	10.23	8.75	13.13	10.82	12.62
Europe	2.41	3.49	2.63	3.40	4.23	3.64	4.19	3.31	3.38	3.80	3.17	3.03
LAC	1.08	1.15	1.17	0.79	1.44	0.93	1.39	1.35	2.31	1.17	0.93	0.90
CANMEX	0.92	1.46	1.14	0.88	0.92	0.72	1.97	5.95	1.50	2.50	3.07	1.95
ROW	0.83	0.74	0.75	0.67	0.87	0.54	0.39	0.12	0.27	0.48	0.53	0.77
<b>TOTAL</b>	<b>11.93</b>	<b>15.76</b>	<b>13.96</b>	<b>14.59</b>	<b>19.31</b>	<b>18.69</b>	<b>20.62</b>	<b>22.35</b>	<b>17.52</b>	<b>22.57</b>	<b>19.77</b>	<b>20.90</b>

-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

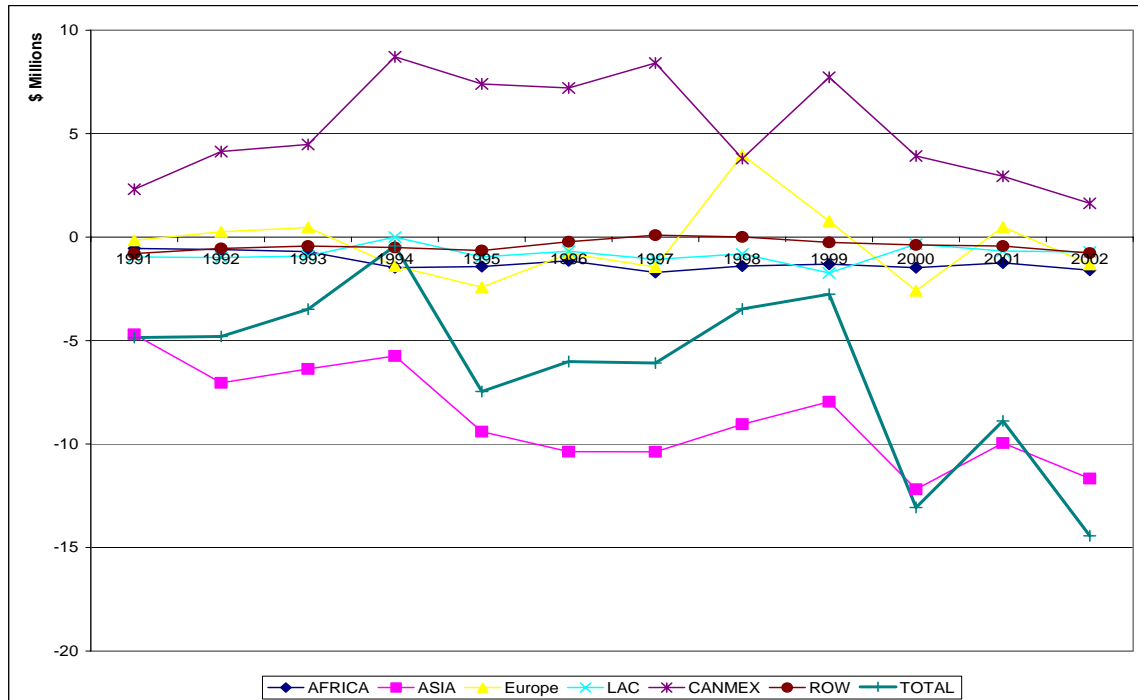
#### **4.4.3 Trade Balance**

With respect to the trade of foliage (not fresh), the US had a declining trade deficit between 1991 and 2002 despite the relatively large trade surplus that it had with



CANMEX. In 1991, there was a trade deficit of approximately \$4.86 million, and by 2002 this deficit increased to approximately \$14.43 million. Fluctuations in the net trade balance were influenced by fluctuations in the trade balance with Europe and the trade deficit with Asia (see Figure 4.4.1).

**Figure 4.4.1: Value of US Foliage (not fresh) Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE

## 4.5 Mosses

### 4.5.1 Export

In 1991, US exports of ornamental mosses totaled \$2.26 million. The value of exports increased to \$16.25 million in 1995, fell slightly in 1996, then continued its upward trend until 1999 when the value of exports of this commodity peaked at \$20.62 million. After 1999 the value plunged and, by 2002, stood at \$2.12 million, slightly lower than the value of exports in 1991 (see table 4.5.1). This pattern mirrored the pattern of ornamental moss exports to Europe. In 1991, Europe was the major market for ornamental moss exports by the US. It received 67.8% of the total value of ornamental mosses exported by the US. By 2002, Europe's value share of the market fell to 15.59%. The next largest market at that time was CANMEX, with a value share of 21.9% of US exports.

By 2002, exports to CANMEX increased, and, with the overall fall of exports to Europe, its share of the total value of ornamental mosses exported by the US also increased moving to 62.5%. Exports to Asia also grew, moving from a value of \$0.06 million in 1991 to \$0.64 million in 2002 (see Table 4.5.1). With this growth, its share of the total value of ornamental mosses exported by the US grew from 2.5% in 1991 to 14.3% in 2002.

#### 4.5.2 Import

In 1991, the US imported \$0.9 million worth of ornamental mosses, and this grew steadily to a value of \$4.16 million by 2002 (see Table 4.5.1). This growth reflected the overall growth in the import of ornamental mosses from most groups, particularly from CANMEX. In 1995, this group, with 36.4% of the value of the US import market for ornamental mosses, and the LAC, with 26.8%, were the major suppliers. The ROW and Europe had value shares of 15.3% and 13.1%, respectively, of the US import market, and Africa had 6.6%. By 2002, despite the growth in imports from all groups, the market shares changed. The value share held by CANMEX increased to 46.9%, and that held by Asia increased to 15.5%. The share of the US ornamental moss market held by the LAC increased slightly to 27.3% while that of Europe fell to 42%.

**Table 4.5.1: Value of Ornamental Mosses Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
US Exports												
AFRICA	0.01	--	--	--	--	--	--	--	--	--	--	--
ASIA	0.06	0.17	0.24	0.42	0.14	0.68	0.63	0.43	0.43	0.38	0.13	0.30
Europe	1.53	4.43	9.45	12.58	14.65	8.77	11.46	15.14	18.10	12.48	0.61	0.33
LAC	0.16	0.04	0.28	0.12	0.07	0.22	0.00	0.10	0.34	0.77	0.38	0.16
CANMEX	0.50	0.64	0.81	1.43	1.38	1.71	1.97	1.81	1.71	1.03	0.86	1.33
ROW	0.01	0.01	0.02	0.01	0.01	0.11	0.02	0.12	0.04	0.06	--	--
<b>TOTAL</b>	<b>2.26</b>	<b>5.28</b>	<b>10.80</b>	<b>14.56</b>	<b>16.25</b>	<b>11.50</b>	<b>14.08</b>	<b>17.60</b>	<b>20.62</b>	<b>14.72</b>	<b>1.98</b>	<b>2.12</b>
US Imports												
AFRICA	0.06	0.06	0.02	0.01	--	0.00	--	0.00	0.02	--	0.01	0.00
ASIA	0.02	0.04	0.04	0.05	0.05	0.10	0.11	0.14	0.39	0.41	0.43	0.64
Europe	0.12	0.03	0.03	0.12	0.20	0.20	0.21	0.38	0.22	0.16	0.17	0.17
LAC	0.25	0.38	0.51	0.68	0.39	0.62	0.55	0.59	0.74	0.83	0.85	1.14
CANMEX	0.34	0.35	0.55	0.44	0.69	0.71	0.79	0.92	1.02	1.50	1.98	1.95
ROW	0.14	0.15	0.16	0.16	0.32	0.13	0.23	0.17	0.38	0.34	0.39	0.25
<b>TOTAL</b>	<b>0.94</b>	<b>1.01</b>	<b>1.31</b>	<b>1.44</b>	<b>1.65</b>	<b>1.76</b>	<b>1.91</b>	<b>2.20</b>	<b>2.77</b>	<b>3.24</b>	<b>3.84</b>	<b>4.16</b>

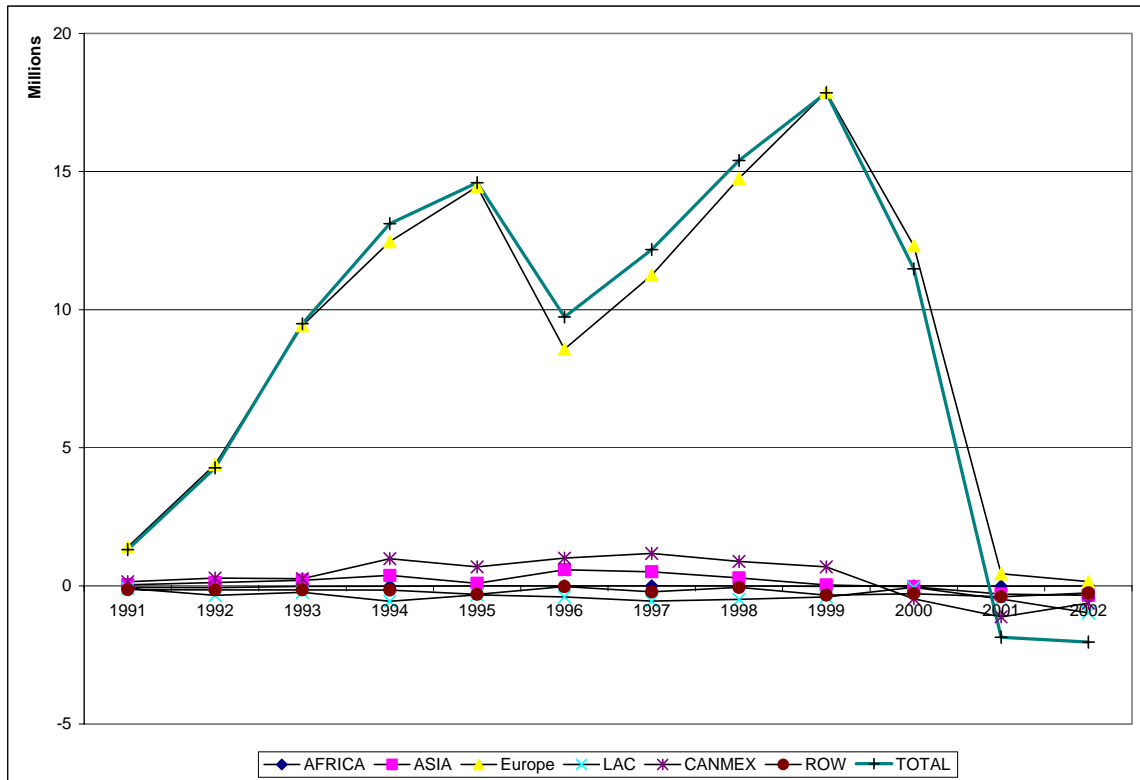
-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

### 4.5.3 Trade Balance

The trend in trade balance resulting from the trade in ornamental mosses reflects the flow of exports of this commodity from the US to Europe. In 1991 the US had a net trade surplus of \$1.32 million. This increased to a maximum of \$17.85 million in 1999 with the growth of exports to Europe. The net trade balance then plummeted to a deficit of \$2.04 million as exports to Europe fell.

**Figure 4.5.1: Value of US Ornamental Mosses Trade Balance with Trading Groups, 1991 - 2002**



Source: United Nations COMTRADE

## 5 Summary

As the US continues to negotiate free trade area agreements within the western hemisphere, the accompanying reduction and/or removal of trade barriers on a wide range of agricultural products, including specialty crops, could result in increased imports of these commodities from the RTA partners, specifically from the Latin American and Caribbean (LAC) countries. The potentially negative impact of this would be greater for winter production areas such as Florida, as the LAC produces the same specialty crops and has similar production periods.

Nationally, Florida ranked second in farm cash receipts from all crops and second, based on value, in vegetable production (USDA, 2003). It also ranked fourteenth out of all the states with respect to agricultural exports with its top exports, fruits and vegetables, falling within the category of specialty crops. According to the USDA (2003), Florida's agricultural exports helped to boost farm prices and income and supported approximately 17,000 jobs both on and off farm in 2001. As such, its agricultural exports are important to Florida's agricultural and statewide economy. From a Florida farm cash receipts perspective, increased imports could undermine revenue earnings from specialty crop production, especially if there is not a comparable growth in the exports of these crops.

This report covered the period 1991 to 2002 and examined trade flows for selected specialty crops deemed important to Florida's agriculture. The general objective was to provide an overview of trade flows in specialty crops, particularly among US major trading partners, and by so doing, assess the existence of traded commodity gaps as they may be relevant to the Florida situation.

### **5.1 *Fresh Vegetables and Melons***

In terms of export earnings, the category Vegetables and Melons, comprised of the eleven selected specialty crops listed in Table 4.5.1, displayed an overall increase over the period, moving from \$458.8 million in 1991 to \$815.99 million in 2002 (see Table 4.5.1). Imports of Vegetables and Melons also increased and at a faster rate than exports, moving from \$739.06 million in 1991 to \$2,160.38 million in 2002 (see Table 4.5.1). This led to a rapidly widening trade gap with respect to trade within this category.

**Table 5.1.1: Value of Selected Fresh Vegetables and Watermelons Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Commodity	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Exports</b>												
Beans	17.84	20.45	20.18	19.59	22.26	22.30	25.64	26.00	24.53	26.92	24.36	25.99
Cabbage	76.60	77.89	96.52	112.43	120.22	114.54	123.92	128.84	130.51	163.06	134.70	146.36
Cucumber	21.42	21.30	23.58	21.96	22.97	23.34	22.68	21.93	20.97	23.02	26.14	26.15
Egg-plants	5.61	7.01	6.87	6.73	7.67	7.14	7.81	8.01	8.05	8.06	8.83	8.67
Peppers	51.44	55.31	58.37	56.36	56.78	58.28	66.53	69.74	69.18	80.47	90.95	90.66
Potatoes	68.80	68.75	79.00	89.99	83.17	85.13	85.91	92.97	92.41	93.39	90.49	122.71
Radishes	9.96	7.82	9.37	8.07	8.28	9.16	9.55	8.91	9.47	9.78	9.79	9.84
Squash	52.25	61.92	74.85	69.92	82.00	72.84	85.92	86.43	85.25	101.87	116.60	107.31
Sweet corn	34.94	38.92	42.79	44.16	41.61	38.27	47.94	47.45	46.14	44.17	40.53	43.67
Tomatoes	119.95	144.93	131.98	131.85	123.20	127.08	156.01	146.73	139.36	182.43	171.53	169.41
Watermelon	0.00	0.00	0.00	0.00	0.00	59.37	51.51	62.01	66.75	60.22	74.39	65.23
<b>Total</b>	<b>458.80</b>	<b>504.28</b>	<b>543.51</b>	<b>561.06</b>	<b>568.16</b>	<b>617.45</b>	<b>683.43</b>	<b>699.02</b>	<b>692.62</b>	<b>793.39</b>	<b>788.33</b>	<b>815.99</b>
<b>Imports</b>												
Beans	12.01	14.58	17.01	19.15	25.10	26.78	31.22	30.80	32.04	31.27	36.50	35.07
Cabbage	11.94	10.60	15.96	14.28	20.74	21.09	30.51	41.57	41.48	49.68	60.40	64.14
Cucumber	89.84	86.90	103.87	125.63	129.79	144.57	116.35	174.11	158.19	194.04	217.85	229.95
Egg-plants	15.65	13.54	13.16	21.82	22.88	19.87	23.42	33.79	24.71	27.55	33.71	33.66
Peppers	165.73	173.58	218.28	234.26	286.27	266.88	307.00	418.06	387.52	513.70	567.73	528.80
Potatoes	54.57	31.90	63.63	70.50	61.71	97.60	72.07	106.87	98.25	85.86	73.94	112.98
Radishes	8.69	7.78	11.15	10.32	14.00	10.17	10.32	17.31	15.32	18.77	13.00	17.33
Squash	87.55	91.61	120.72	117.11	135.89	145.22	153.15	195.64	183.62	214.45	267.67	256.90
Sweet corn	4.03	4.93	5.95	12.14	6.92	7.86	10.47	10.65	9.53	8.72	8.99	12.82
Tomatoes	289.04	167.13	366.46	385.38	501.87	751.94	746.73	872.80	780.72	718.07	800.53	868.75
Watermelon	--	--	--	--	--	34.05	36.43	40.54	41.54	42.08	40.09	52.67
<b>Total</b>	<b>739.06</b>	<b>602.55</b>	<b>936.19</b>	<b>1010.60</b>	<b>1205.19</b>	<b>1491.96</b>	<b>1501.24</b>	<b>1901.59</b>	<b>1731.39</b>	<b>1862.11</b>	<b>2080.32</b>	<b>2160.38</b>

-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

Over the period 1991 to 2002, the value of bean exports increased from \$17.84 million to \$25.99 million, while bean imports increased from \$12.01 million to \$55.07 million (see Table 4.5.1). Imports increased at a faster rate than exports, and the result was a declining trade balance. Imports from CANMEX, which was the major trade partner, greatly influenced the declining trade balance. However, a trade surplus in the LAC market, which resulted from the strong performance of exports to the LAC from 1996 to 2000, moderated the effect of the declining trade balance with CANMEX. In 2002, a decline in the trade balance with the LAC, due to increased importation of beans from this group, dampened the positive impact of an improvement in the trade balance with CANMEX.

Over the period 1991 to 2002, value of cabbage exports increased from \$76.60 million to \$146.36 million (see Table 4.5.1). The main markets for this US export were CANMEX and Asia with the latter contributing significantly to export growth. The value of cabbage imports by the US increased from \$11.94 million in 1991 to \$64.14 million in 2002. CANMEX was the main supplier. The US maintained a net trade surplus with respect to the trade of cabbages sustained by the increasing trade surplus in the Asian market aided by the rapid growth of exports to that market. Despite the outstanding performance of the Asian market, there was an overall downward trend of the net trade surplus from 1995 through to 2002, and this can be attributed to the continued decline of the trade surplus with CANMEX, particularly due to the growth in imports from this group.

In 2002 the value of sweet corn exported by the US stood at \$403.67 million. This represented an increase over the export value of \$34.94 million in 1991 (see Table 4.5.1). The major destinations in 1991 were Asia, the ROW, and Europe. Over the period 1991 to 2002, US exports of sweet corn to Asia grew; however, Asia's value share of US sweet corn exports fell. This was due mainly to the rapid growth of exports to CANMEX and the decline in exports to Europe and the ROW. By 2002, the major Markets were Asia and CANMEX. The value of sweet corn imports to the US increased from \$4.03 million in 1991 to \$12.83 million in 2002, with CANMEX being the main supplier. The US has maintained a net trade surplus, with respect to the trade of fresh sweet corn,

sustained by the trade surplus in the Asian market. With respect to its trading partners, CANMEX was the only one with which the US showed a trade deficit.

There was relatively little change in the value of fresh cucumber exports from the US. Between 1991 and 2002, it moved from \$21.42 million to \$26.15 million. Imports, however, showed strong growth, moving from \$89.84 million in 1991 to \$229.95 million in 2002. The main group receiving US exports of cucumber was CANMEX. This group was also the major supplier of cucumbers to the US. With respect to fresh cucumbers, the US had a trade deficit with all its trading partners, and with very little change in exports and increasing imports, the US showed an increasing net trade deficit with respect to the trade of fresh cucumbers. This increasing deficit reflected the increasing trade deficit with the CANMEX group.

The export of eggplants by the US displayed a moderate upward trend, increasing in value from \$5.61 million in 1991 to \$8.67 million in 2002. The major market, CANMEX, suffered a slight drop in its value share of US export of eggplants from 98.4% in 1991 to 96.3% in 2002. This was due to increased exports to Asia whose value share of US exports grew from 0.4% in 1991 to 2.5% in 2002. In 1991 the US imported eggplants valued at \$15.65 million, and by 2002, imports stood at \$33.67 million. In 1991, CANMEX had the majority share, 99.5% by value, of the US import market for fresh eggplants. Overall, imports from CANMEX increased, but its value share of the market dipped to 84.7%. This fall in market share resulted from increased importation of this commodity from Europe and the LAC. In 1991, the LAC's market share was 0.4%, and this grew to 4.5% by 2002. In 1991, there was no recorded importation of fresh eggplants from Europe. In 1992, eggplant imports from Europe totaled \$0.01 million, an approximate 0.1% share of the US import market for fresh eggplants. By 2002, this group's market share, by value, had grown to 10.7%. With respect to the trade of eggplant, the US had an increasing trade deficit that grew from \$10.04 million in 1991 to \$24.99 million in 2002. The majority of this trade deficit can be attributed to increasing imports from CANMEX and, to a lesser extent, increasing imports from the LAC and Europe.

The value of peppers exported by the US grew from \$51.44 million in 1991 to \$90.66 million in 2002. CANMEX, with 99.2% of the total value of peppers exported by

the US in 1991 and 95.5% in 2002, was the main market. The fall in the share was due to the growth of exports to the LAC, Europe and Asia. Asia and Europe respectively, received 0.3% and 0.4% of the total value of peppers exported by the US in 1991, and this increased respectively, to 1.4% and 1.5%. There was no record of pepper exportation by the US to the LAC until 1993, and at this point, the value share of the US exports received was 1.3%. In 2002, the value share received by the LAC increased to 1.8%. The importation of fresh peppers grew between 1991 and 2002 from \$165.73 million to \$528.80 million. Despite an increase in imports from CANMEX and Europe, their share of the US import market respectively declined from 75.4% and 24.0% in 1991 to 73.5% and 20.0% in 2002. This slight drop in market shares was due to the rise in pepper imports from Asia, which saw its market share grow from 0.3% in 1991 to 5.8% in 2002. The US had an increasing trade deficit with its major trading partners and, therefore, maintained an overall increasing net deficit with respect to the trade of fresh peppers.

The export of potatoes by the US showed a relatively strong pattern of growth, increasing from \$68.80 million in 1991 to \$122.71 million in 2002 (see Table 4.5.1). The main market for this export was CANMEX, which suffered a loss in the share of potatoes received from the US due to the increase in exports to Asia and, to a lesser extent, to the LAC. The importation of potatoes by the US displayed an upward trend moving from \$54.57 million in 1991 to \$112.98 million in 2002 (see Table 4.5.1). Over the period 1991 to 2002, CANMEX dominated the supply of potatoes imported to the US market. With the exception of CANMEX, the US maintained a trade surplus with its trading partners between 1991 and 2002. The pattern of decline in the US fresh potato trade balance reflected changes in the trade balance with CANMEX.

In 1991, the value of US radish exports stood at \$9.96 million, and this displayed an erratic decline to \$9.84 million by 2002. In 1991, CANMEX, Europe, and Asia, in order of the value share, were the major markets for fresh radishes exported by the US. By 2002, CANMEX's share of the total value of radish exports by the US grew as exports to Europe and Asia declined. In 1991, the US imported fresh radishes valued at \$8.69 million, and by 2002, this increased to \$17.33 million. CANMEX and Asia, in order of market share, were the major suppliers, with CANMEX's market share increasing while Asia's market share decreased over the 1991 to 2002 period. Change in



import levels was the driving force behind the declining net trade balance with respect to trade of radishes.

There was an overall increase in the export of squash from the US between 1991 and 2002 with export value growing from \$52 million to \$107.31 million. In 1991 CANMEX was the largest squash market for the US, the LAC was the second largest, and Asia was the third largest. There was growth in the export of squash from the US to the major markets between 1991 and 2002; however, at the end of the period, the share of exports received by each market changed. CANMEX remained the dominant market and Asia the second largest. Despite the growth of export to LAC, the share of the US squash exports received by this group declined. The value of fresh squash imported by the US grew steadily from \$87.55 million in 1991 to \$256.90 million in 2002. CANMEX and the LAC were the major suppliers of fresh squash to the US, with imports from both groups increasing over the 1991 to 2002 period. During that period, the market share of CANMEX increased while that of the LAC decreased. The trade balance of the US, with respect to the trade of squash, was an increasing net deficit. The US maintained an increasing trade surplus with Asia as exports to that group grew. It also maintained a trade surplus with Europe and the ROW. However, due to the high levels of imports from CANMEX and the LAC, the US had an increasing trade deficit with these groups

The exportation of tomatoes from the US exhibited a slight increase between 1991 and 2002, moving steadily from \$119.95 million to \$169.41 million. Over the period, CANMEX remained the main market despite a small fall in its share of the total value of tomatoes exported by the US. This fall in the share received was a result of the growth in tomato exports from the US to Europe. The importation of tomatoes by the US outperformed exportation, increasing from \$289.04 million in 1991 to \$868.75 million by 2002. CANMEX was the major supplier of tomatoes to the US market. With some similarity to the overall pattern of total tomato imports to the US, tomato imports from CANMEX increased. Despite this growth, the value share of the tomato import market held by this group fell. This loss of market share was due to the growth of imports from Europe. With respect to the trade of tomatoes, the US had a net trade deficit that grew from \$169.09 million in 1991 to \$699.34 million in 2002. The movement in the deficit

over this period reflects the fluctuations in the deficit with CANMEX, which was influenced by the fluctuation of imports from that group.

Data pertaining to the US trade of watermelons prior to 1996 was not available. Between 1996 and 2002, the export of watermelons displayed growth moving in value from \$34.05 million to \$52.65 million. CANMEX was the main market for US export of watermelon. The flow of watermelon imports to the US was even less dynamic than the flow of exports, moving from \$59.37 in 1991 to \$65.23 million by 2002. CANMEX was the main supplier of watermelon to the US over the period. Despite an increase in the value of imports from this group, the market share fell due to the growth in imports from the LAC. With respect to the trade of watermelons, the US had a net trade deficit of \$25.31 million in 1996 that declined to \$12.55 million in 2002. The fall in the deficit would have been greater had it not been for the increasing deficit with the LAC as imports from this group increased.

## **5.2 Fresh Fruits**

In 1991 the US exports of berries totaled \$15.37 million, and by 2002, this grew to \$40.02 million (see Table). In 1991, CANMEX and Europe were the major markets. However, with increased exports to CANMEX and Asia, and declining exports to Europe, by 2002 Asia grew to be the second largest market next to CANMEX. The US imported berries valued at \$24.97 million in 1991, and by 2002 berry imports had increased to \$76.72 million (see Table 5.2.1). Despite a fall in its value share, CANMEX was the main supplier of berries to the US market between 1991 and 2002. The decline in value share was due to an increase in imports from the LAC. With respect to the trade of berries, the US had a net trade deficit that showed an overall increase from \$9.60 million in 1991 to \$36.70 million in 2002. This decline resulted from increased imports from CANMEX and the LAC.

The export of fresh grapefruit from the US showed an overall downward trend declining from \$274.16 million in 1991 to \$218.06 million in 2002 (see Table 5.2.1). According to the value share of US exports of grapefruit, Asia was the major market followed by Europe and CANMEX. Exportation of grapefruit to all the major markets declined between 1991 and 2002, and, though the major markets remained the same, the market proportions changed. The value share received by Asia and CANMEX fell while

that of Europe increased. The importation of grapefruit by the US displayed, overall, an upward trend, with a sharp increase in importation between 2000 and 2001 from \$1.57 million in 1991 to \$2.16 million (see Table 5.2.1). Taking into consideration consistent supply along with market share, LAC and Asia were the overall major suppliers. With respect to the trade of grapefruits, the US showed a declining trade surplus with most of the trading groups. In 1991, the US had a net trade surplus of \$272.59 million, and, due to declining exports, particularly exports to Asia, by 2002 this declined to \$215.90 million.

The export of limes and lemons by the US displayed a downward trend, declining from \$133.95 million in 1991 to \$83.58 million in 2002 (see Table 5.2.1). The largest market was Asia, followed by CANMEX. With declining exports to Asia and increased exports to CANMEX, by 2002 the value share of exports received by Asia fell while that received by CANMEX grew. Despite these changes, Asia remained the major market. Over the period 1991 to 2002, the import value of limes and lemons increased from \$21.10 million to \$95.95 million. CANMEX, the LAC and Europe were the major suppliers of limes and lemons to the US. The overall growth in imports from CANMEX resulted in an increase in its value share of the US import market for limes and lemons. There was also an increase in the importation of limes and lemons from Europe and, to a lesser extent, from the LAC. With the growth of imports from Europe, particularly between 2001 and 2002, the value share of the market held by the LAC fell while that held by Europe increased, making it the second largest market in 2002. With respect to its trade balance, the US had a net surplus that declined from \$112.85 million in 1991 to a deficit of 12.37 million. This was due to declining exports to Asia and increasing imports from CANMEX, Europe and the LAC.

**Table 5.2.1: Value of Selected Fruits Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Commodity	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Export												
Berries	15.37	20.39	21.00	18.72	15.98	17.94	19.01	22.62	27.03	35.31	34.09	40.02
Grapefruit	274.16	236.71	221.68	232.34	249.82	251.31	237.87	193.94	220.25	213.37	204.28	218.06
Lemons and limes	133.95	106.31	115.26	109.43	130.60	123.46	123.22	81.45	86.58	80.11	80.81	83.58
Tangerines	24.78	31.83	36.47	30.84	34.36	36.91	32.89	32.13	30.92	36.35	29.11	16.41
Oranges	189.57	269.74	284.47	299.27	321.87	288.53	338.37	356.50	171.98	304.22	313.97	325.08
Strawberries	79.27	85.49	79.45	96.63	87.77	90.55	97.27	93.05	107.64	118.54	114.61	135.91
<b>Total</b>	<b>717.10</b>	<b>750.47</b>	<b>758.32</b>	<b>787.22</b>	<b>840.41</b>	<b>808.69</b>	<b>848.62</b>	<b>779.69</b>	<b>644.41</b>	<b>787.89</b>	<b>776.87</b>	<b>819.05</b>
Imports												
Berries	24.97	27.17	18.59	28.39	30.69	28.45	30.78	57.84	49.18	55.93	67.36	76.72
Grapefruit	1.57	1.22	1.66	1.35	3.35	1.75	1.35	1.00	1.09	1.06	3.26	2.16
Lemons and limes	21.09	22.74	41.79	26.04	7.80	8.55	36.06	58.75	73.46	82.83	80.47	95.95
Tangerines	16.73	17.87	18.88	22.64	21.08	34.68	55.34	55.06	126.26	152.67	129.23	121.08
Oranges	53.00	5.13	10.36	15.35	13.38	26.62	35.95	40.92	93.91	49.91	47.83	55.01
Strawberries	20.18	17.23	23.53	36.26	47.95	57.96	28.49	70.55	65.83	56.60	47.84	61.99
<b>Total</b>	<b>137.54</b>	<b>91.37</b>	<b>114.81</b>	<b>130.03</b>	<b>124.26</b>	<b>158.02</b>	<b>187.96</b>	<b>284.13</b>	<b>409.73</b>	<b>398.99</b>	<b>375.97</b>	<b>412.90</b>

-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

In 1991, the US exported fresh oranges valued at \$189.57 million, and this increased to \$325.08 million by 2002 (see Table 5.2.1). Asia was the major market, and CANMEX was the next major market. Between 1991 and 1992, US importation of fresh oranges shrank, then showed strong growth from 1992 onwards. By 2002, it reached \$55.01 million. The main suppliers of the fresh oranges to the US import market in 1991 were CANMEX, followed by Africa, then Europe. The importation of oranges from CANMEX and Europe fell while imports to Africa and the ROW grew. As a result, by 2002, the ROW was the major market, followed by Africa, then CANMEX. With respect to the trade of oranges, the US showed a net surplus between 1991 and 2002. Changes in the surplus over this period were influenced mainly by exports by the US to Asia and CANMEX.

From 1991 to 2002, export of fresh strawberries from the US expanded from \$79.27 million to \$135.91 million (see Table 5.2.1). Much of this growth resulted from growth in exports to CANMEX, which was the largest export market. Asia was the next major export market, followed by Europe and the ROW. Strawberry exports to CANMEX and Asia displayed an overall growth, while exports to Europe and the ROW declined. By 2002 CANMEX and Asia were the major markets. In 1991, the US imported fresh strawberries valued at \$20.18 million, and this increased to \$61.99 million by 2002. CANMEX and the LAC were the main groups that supplied fresh strawberries to the US. Dwindling imports from the LAC and increasing imports from the ROW and CANMEX led to a shift of market shares in 2002. CANMEX, with a value share of 92.6%, held its position as the major supplier of strawberries, and ROW became the second largest supplier as the LAC suffered a significant loss of market share. With respect to strawberries, the US had an overall increase in the net trade surplus influenced mainly by the changes in the trade surplus with CANMEX. With the exception of the LAC and the ROW, the US maintained a trade surplus with its trading partners.

Exports of tangerines in 1991 stood at \$24.78 million, and by 2002, this fell to \$16.41 million (see Table 5.2.1). With very little change in the level of tangerine exports to CANMEX from the US, this group remained the major market for US tangerines over the period 1991 to 2002. Asia was the only market that displayed an overall growth over the same period with a significant gain in the value share of tangerine exports from the

US. Between 1991 and 2002, imports of tangerines to the US increased from \$16.73 million to \$121.08 million (see Table 5.2.1). Africa had the largest share of the tangerine import market of the US in 1991. Europe was the second largest and CANMEX the third largest. By 2002, Europe grew to be the major market, Africa fell to the second largest, and CANMEX lost significant market share. With respect to the trade of fresh tangerines, the US showed a net trade surplus of \$8.05 million in 1991, which decreased to a deficit of \$104.67 million. In 2002, CANMEX was the only group with which the US had a constant trade surplus.

### ***5.3 Foliage and Floriculture***

Export of cut flowers from the US showed an increasing trend throughout the period of study, increasing from \$26.64 million in 1991 to \$47.85 million in 2002. Much of this growth was due to the expansion of exports to CANMEX, which was the major market for fresh flower exported by the US. Asia was the next largest, followed by Europe. By 2002, the value share of US exports to CANMEX increased while the value shares held by Asia and Europe fell. Exports to the LAC, a lesser market, also showed strong growth. In 1991, US import of fresh cut flowers totaled \$390.59 million, and by 2002 it grew to \$671.11. Much of this growth reflected the growth of fresh cut flower imported from the LAC, which was the major supplier. Europe was the other major supplier, followed by Asia. Between 1991 and 2002, supplies from all groups increased; however, imports from the LAC and CANMEX grew at a faster rate, resulting in the LAC and Europe maintaining their market position while Asia lost its position to CANMEX. In 1991, the net trade balance resulting from the trade of fresh cut flowers showed a deficit of \$363.96 million, and this increased to \$623.26 million by 2002. The growth of the trade deficit reflected the growth in the trade deficit with LAC as imports from this group grew.

**Table 5.3.1: : Value of Selected Foliage and Floriculture Commodities Exported and Imported by the U.S., 1991 -2002 (\$Million)**

Commodity	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Export</b>												
Cut flowers (dried)	11.99	10.91	13.07	13.38	16.76	18.60	16.45	14.47	12.18	12.09	9.54	7.69
Cut flowers and flower (fresh)	26.64	28.24	34.88	35.67	35.71	42.68	48.18	45.95	45.13	46.11	48.40	47.85
Foliage (not fresh)	7.08	10.96	10.47	14.16	11.85	12.67	14.53	18.88	14.76	9.50	10.88	6.46
Foliage (fresh)	55.66	55.12	66.90	47.84	45.98	53.01	57.34	50.00	50.86	59.17	74.50	75.21
Mosses (ornamental)	2.26	5.28	10.80	14.56	16.25	11.50	14.08	17.60	20.62	14.72	1.98	2.12
<b>Total</b>	<b>103.62</b>	<b>110.52</b>	<b>136.12</b>	<b>125.61</b>	<b>126.55</b>	<b>138.46</b>	<b>150.58</b>	<b>146.91</b>	<b>143.56</b>	<b>141.58</b>	<b>145.30</b>	<b>139.33</b>
<b>Imports</b>												
Cut flowers (dried)	12.90	13.27	12.73	14.07	18.43	16.75	17.12	16.77	18.71	16.84	15.32	12.90
Cut flowers and flower (fresh)	390.59	423.57	456.36	503.30	604.36	679.82	732.39	744.74	716.15	753.96	700.47	671.11
Foliage (not fresh)	11.93	15.76	13.96	14.59	19.31	18.69	20.62	22.35	17.52	22.57	19.77	20.90
Foliage (fresh)	34.49	34.73	40.73	40.52	45.71	52.31	55.49	59.91	65.52	70.17	74.11	71.51
Mosses (ornamental)	0.94	1.01	1.31	1.44	1.65	1.76	1.91	2.20	2.77	3.24	3.84	4.16
<b>Total</b>	<b>450.86</b>	<b>488.35</b>	<b>525.09</b>	<b>573.92</b>	<b>689.44</b>	<b>769.34</b>	<b>827.52</b>	<b>845.98</b>	<b>820.67</b>	<b>866.78</b>	<b>813.50</b>	<b>780.59</b>

-- Represents data not reported; \$0.00 represents values less than \$10,000.

Source: United Nations COMTRADE database

In 1991, the value of dried cut flower exported by the US was \$11.99 million, and by 2002 the value of exports fell to \$7.69 million. Based on value, the major markets for dried cut flowers exported by the US in 1991 were CANMEX, Europe, and Asia. Between 1991 and 2002, there was an overall growth in export value to CANMEX while export value to all other major trading groups displayed an overall decline. As a result, by 2002 CANMEX was the dominant market, and Europe and Asia lost significant export value shares. In 1991, the US imported \$12.90 million worth of dried cut flowers. Overall imports showed an increasing trend up to 1999 and then declined to approximately \$12.90 million by 2002. In 1991, Europe was the major supplier. Other major suppliers were Asia and CANMEX. Between 1991 and 2002, the value of imports from Europe fell while the value of imports from CANMEX increased. At the end of that period, CANMEX and Asia stood as the major suppliers. With respect to the trade of dried cut flowers, the US had an overall decline in trade balance. In 1991, there was a trade deficit of approximately \$0.92 million. Decreasing trade surplus with CANMEX along with the increasing trade deficit with Asia led to the overall decrease in the trade balance to a deficit of \$5.22 million by 2002.

There was an overall growth in the value of US exports of fresh foliage between 1991 and 2002 from \$55.66 million to \$75.21 million. Europe and CANMEX were the major markets over the period with CANMEX exhibiting strong growth. In 1991, the value of fresh foliage imported by the US was \$34.49 million, and this grew steadily to \$71.51 million by 2002. CANMEX remained the main supplier despite the strong growth in imports from LAC and Europe. Between 1991 and 2002, the trade balance resulting from the trade of foliage declined from a surplus of \$21.18 million to a surplus of \$3.70 million. Changes in exports to Europe and increased imports from CANMEX and the LAC influenced this decline.

US export of foliage (not fresh) declined between 1991 and 2002, moving from \$7.08 million to \$6.46 million. Based on value shares, CANMEX, Europe, and Asia were the major markets over that period. US imports of foliage (not fresh) showed an upward trend between 1991 and 2002, increasing from \$11.93 million to \$20.90 million (See Table 5.3.1). Asia and Europe were the main suppliers of foliage (not fresh) to the US market over the 1991 to 2002 period. With respect to the trade of foliage (not fresh),



the US had a declining trade deficit between 1991 and 2002 from \$4.86 million to \$14.43 million despite the relatively large trade surplus that it had with CANMEX. Fluctuations in the net trade balance were influenced by fluctuations in the trade balance with Europe and fluctuations in the trade deficit with Asia.

The US exports of ornamental mosses totaled \$2.26 million in 1991 and by 2002 stood at \$2.12 million despite a period of significant growth. In 1991, Europe was the major market for ornamental mosses exported by the US, followed by CANMEX. By 2002, CANMEX became the major market, followed by Europe and Asia, which experienced significant growth as a market. In 1991, the US imported \$0.9 million worth of ornamental mosses, and this grew steadily to a value of \$4.16 million by 2002. With respect to the value share of the US import market, CANMEX was the main supplier, followed by the LAC, the ROW, and Europe. By 2002, the market shares changed. The major markets were CANMEX, the LAC, and Asia. Europe and the ROW suffered significant market share losses. The fluctuations in the trade balance of ornamental mosses reflect the flow of exports of this commodity from the US to Europe. In 1991, the US had a net trade surplus of \$1.32 million and this fell to a deficit of \$2.04 million as exports to Europe fell in 2002.

## 6 Conclusion

Overall, the US already has a relatively high import level of the specialty crops. This is apparent from the widening trade gaps and the declining surpluses experienced by all commodities, with the exception of oranges and strawberries. CANMEX is the dominant supplier of vegetables, and growing imports from this group drives the growing vegetable trade deficit. With respect to fruits, CANMEX was also a dominant supplier and affected trade balances; however, many of the declining fruit trade balances were due to declining exports to markets such as Asia and the Europe. CANMEX played a major role in the trade of foliage and floriculture but did not dominate the trade. With free trade agreements, an increased inflow of goods is expected as trade barriers are lowered. Seeking out new markets and committing resources towards developing existing ones are possible ways of mitigating the potential negative effects from increased imports.

With respect to the export of the selected fresh vegetables and melons, CANMEX was the dominant market in 1991. However, there was some diversity. Over the period 1991 to 2002, the export market became even more concentrated towards CANMEX. Asia was the major market for cabbages and sweet corn, was an important market for squash, and displayed growth potential as a market for peppers. Europe was a growing market for tomatoes, while the LAC was a growing market for peppers and was once an important market for squash. The establishment of the free trade areas within the western hemisphere may bolster US exports of fresh vegetables to the LAC. A concerted effort to revitalize and develop exports such as tomatoes, radishes, and sweet corn to Europe is required.

The US had a greater diversity in trading partners with respect to the trade of the selected fruits. Regarding the export of these commodities, the markets remained relatively unchanged over the 1991 to 2002 period. CANMEX was the major market for berries, strawberries and tangerines, and Asia was the major market for grapefruits, limes and lemons, and oranges. Europe was an important market for berries and grapefruits. A step towards improving the declining trade balance with respect to fresh fruits is to address the flagging exports of grapefruits to Asia and Europe, and limes and lemons to Asia.

Similar to the trade in vegetables, the trade in foliage and floriculture over the 1991 to 2002 period saw a concentration of the export market towards CANMEX, especially in the export of cut flowers (fresh and dried) and foliage (not fresh). Based on the growth of exports, Asia appears to have the potential to be a substantial market for fresh cut flowers and foliage along with ornamental mosses. Declining exports of dried cut flowers and foliage (not fresh) to Asia suggest that steps could be taken to improve the marketing of this commodity to this group.

Over the period 1991 to 2002, there were changes in the trade flows of the selected vegetables, fruits, and foliage and floriculture. Two noticeable trends were the concentration of trade with CANMEX, especially with respect to vegetables, and declining exports to Asia and Europe. Also noticeable were declining trade balances experienced by the majority of the commodities in this study. Preparing for additional imports resulting from expanded regional free trade agreements in the western hemisphere requires the commitment of additional resources toward the expansion of existing markets and the development of potentially new markets.

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