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

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United States Trade Flows for Selected Categories of Specialty Crops and the General Policy Implication

Garfield G. Lowe, Carlton G. Davis and Richard L. Kilmer¹

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 could have a major impact on the competitive position of United States (US) specialty crops². Increased imports of these commodities from the RTA partners could negatively affect local production. The potentially negative impact would be greater for winter production areas such as Florida, as the Latin American and Caribbean (LAC) produces the same specialty crops and have 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 help 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. 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 paper examines the trade flows over the period 1991 to 2002 for selected specialty crops deemed important to Florida and proposes a general policy direction with respect to the trade of these crops.

Fresh Vegetables and Melons

Over the period 1991 to 2002, export earnings from specialty crops, selected from the category fresh vegetables and melons, displayed an overall increase moving from

¹ 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.

² 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).

\$458.8 million in 1991 to \$815.99 million in 2002. Import of these commodities also increased and at a faster rate than export, moving from \$739.06 million in 1991 to \$2,160.38 million in 2002. This led to a rapidly widening trade gap within this category.

Over the same period, the value share of the selected fresh fruits and vegetables exported by the US to its NAFTA trade partners Canada and Mexico (CANMEX) decreased from 83% to 81%. This fall in the value share received by CANMEX resulted from an increase in the value share received by Asia, from 11.3% to 14.2%, over the same period.

Looking at the specific commodities, the value of bean exports increased from \$17.84 million to \$25.99 million over the 1991 to 2002 period, and imports increased from \$12.01 million to \$55.07 million. Imports increased at a faster rate than exports and the result was a declining trade balance greatly influenced by a declining trade balance with CANMEX, the major trade partner. The LAC proved to be an important market. Between 1996 and 2000, a trade surplus in the LAC market, which resulted from the strong performance of exports to the LAC, moderated the effect of the declining trade balance with CANMEX. In 2002, however, a decline in the trade balance with the LAC, mainly 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. 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 with CANMEX as the main supplier. The US maintained a net trade surplus with respect to the trade of cabbages, sustained by an increasing trade surplus in the Asian market as exports to that market grew rapidly. Despite the outstanding performance of the Asian market, there was an overall downward trend of the net trade surplus from 1995 to 2002. This was due to the continued decline of the trade surplus with CANMEX, particularly with the growth of imports from this group.

The value of sweet corn exported by the US increased from \$34.94 million in 1991 to \$403.67 million in 2002. 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.

Between 1991 and 2002, the value of fresh cucumber exports increased 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 very little change in exports and increasing imports, the US had an increasing net trade deficit and had a trade deficit with all its trading partners with respect to the trade of fresh cucumbers. This increasing net 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% value share of the US import market for fresh eggplants. By 2002, this group's share had grown to 10.7%. With respect to the trade of eggplant, the US trade deficit grew from \$10.04 million in 1991 to \$24.99 million in 2002. The majority of this

trade deficit resulted from 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 had an 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. The main market for this export was CANMEX, which suffered a loss in the value 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. 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 with a value share of 79.2%, Europe with 15.3%, and Asia with 3.2% 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 to 90.8% as exports to Europe and Asia declined. In 1991, the US imported fresh radishes were valued at \$8.69 million, and, by 2002, this increased to \$17.33 million. In 1991, CANMEX, with 86.5% of market value share, and Asia, with 11.5%, were the major suppliers. CANMEX's market share increased while Asia's market share decreased over the 1991 to 2002 period. Changing import levels was the driving force behind the declining net trade balance with respect to the 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, which received 69.7% of the value of squash exported by the US, was the largest squash market. The LAC, receiving a value share of 15.4%, was the second largest, and Asia with 10.6% 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 with a value share of 71.9% and Asia the second largest with 12.9%. Despite the growth of export to LAC, the share, by value, of the US squash exports received by this group declined to 12.8%. 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 from 88.9% to 91.5% while that of the LAC decreased from 10.5% to 7.8%. 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, the US had an increasing trade deficit with CANMEX and the LAC due to the high levels of imports from 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 from 96.5% to 93.1%. This fall in the share received was a result of the growth in tomato exports from the US to Europe, which saw its value share of tomatoes exported by the US increase from 2.5% to 4.2%. The importation of

tomatoes by the US outperformed exportation, increasing from \$289.04 million in 1991 to \$868.75 million by 2002. CAMEX 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 influenced by the fluctuation of imports from this 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 with 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.

Fresh Fruits

Over the period 1991 to 2002, export earnings from specialty crops, selected from the category fresh fruits, showed an overall increase moving from \$717.1 million in 1991 to \$819.05 million in 2002. Import of these commodities also increased moving from \$137.54 million in 1991 to \$412.90 million in 2002. This led to a declining net trade surplus. Over the same period, the total value share of the selected fresh fruits exported by the US to Asia, the overall main market, decreased from 59.3% to 53.5%. This fall in the value share received by Asia resulted from an increase in the value share received by CANMEX, from 29.5% to 36.4%, over the same period.

In 1991 the US exports of berries totaled \$15.37 million, and, by 2002, this grew to \$40.02 million. 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. In 1991, the US imported berries valued at \$24.97 million, and, by 2002, this increased to \$76.72 million. 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. Ranked according to the value share of grapefruit exported by the US, Asia with 63% was the major market followed by Europe and CANMEX with 22.2% and 14.2% respectively in 1991. 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 to 60.7% and 12.3% respectively, while that of Europe increased to 25.3%. The importation of grapefruit by the US displayed an upward trend, with a sharp increase in importation between 2000 and 2001, increasing from \$1.57 million in 1991 to \$2.16 million. 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. The largest market in 1991 was Asia, with a value share of 81.6% of US exports, followed by CANMEX with 16.4%. 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%. 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, 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 limes and lemons, the US trade balance declined from a surplus of \$112.85 million in 1991 to a deficit of 12.37 million due to declining exports to Asia and increasing imports from CANMEX, Europe and the LAC.

In 1991, the US exported fresh oranges valued at \$189.57 million, and this increased to \$325.08 million by 2002. With respect to the value share of US export of fresh oranges in 1991, Asia, receiving 65.3%, was the major market and CANMEX, with 33.17%, was the next major market. The distribution was similar in 2002 with Asia as the main market followed by CANMEX despite its 3% loss of value shares due to increased flow of exports to the ROW. Between 1991 and 1992, US importation of fresh oranges shrank, but 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 from 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. Exports by the US to Asia and CANMEX influenced the changes in the surplus over this period.

From 1991 to 2002, export of fresh strawberries from the US expanded from \$79.27 million to \$135.91 million. 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. 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. 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.

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 flowers 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 flowers 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.

In 1991, the value of dried cut flowers 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 they 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 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 increase in the trade deficit to \$5.22 million in 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.

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. 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.

Summary and Policy Direction

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 Europe. CANMEX played a major role in the trade of foliage and floriculture but did not dominate the trade. Under free trade agreements, it becomes difficult to prevent the inflow of goods. 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. Over the period 1991 to 2002, the export market became a bit more diversified as the value share received by Asia increased. Asia was the major market for cabbages and sweet corn, an important market for squash, and displayed growth potential as a market for peppers, potatoes and radishes. Europe was a growing market for tomatoes, sweet corn, peppers, and radishes. The LAC was a growing market for peppers and potatoes 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 to potential and growing markets 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, and the ROW showed potential as a market for oranges and strawberries. 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 and to explore the potential markets.

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 and Europe appear to have the potential to be substantial markets 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 foliage and floriculture, and declining exports to Asia and Europe. Also noticeable was declining trade balances experienced by the majority of the commodities in this study. Preparing for a possible onslaught of imports brought on by the implementation of regional free trade agreements in the western hemisphere requires continued research efforts towards expansion of specialty crop exports.

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