

ONTARIO GREENHOUSE VEGETABLE MARKETS



IN THE UNITED STATES

The Ontario Greenhouse Alliance
TOGA

NIAGARA
ECONOMIC DEVELOPMENT
CORPORATION

ACKNOWLEDGMENTS

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TOGA is coordinating a number of project initiatives to raise the profile and brand the products and services of Ontario's greenhouse industry.

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Executive Summary

The greenhouse industry has exploded within Canada over the past few years! This is evident in all areas of greenhouse production whether in the growth of greenhouse floral products or growth in greenhouse vegetable commodities. It is especially evident in the growth of greenhouse acreage, capital investments in infrastructure and related secondary industry development occurring in various regions across the country. Greenhouse operations are also consolidating into more expansive operations to realize the benefits of economies of scale.



Ontario continues to lead the greenhouse industry in total production area with 51.22% of Canada's total acreage as of 2004. The province of Ontario has by far the largest acreage devoted to greenhouse tomatoes, a total in excess of 29.5 Million sq. ft., which represents 61.7% of Canada's total area for this particular vegetable. Growers in British Columbia, however, have the largest proportion of the greenhouse peppers grown nationally under glass or plastic, with over 9.0 Million sq. ft. or 52.24% of the total Canadian production area.

In 2004, Canadian greenhouse vegetable sales broke through the \$700 Million mark as a result of an expansion of both domestic and international markets, and the premium prices realized for quality greenhouse vegetable products. Over the eight year period between 1997-2004, farm gate sales growth for greenhouse tomatoes alone nearly tripled, climbing from approximately \$140 Million to \$413 Million. By comparison, over the same period the farm gate value of tomatoes grown in Canadian greenhouses was more than 5 ½ times greater than the farm gate value of field tomatoes. Driven largely by the export success enjoyed by greenhouse tomatoes, the increased values also reflected an expansion in domestic greenhouse cucumber and pepper production and export sales in response to a growing interest by North American consumers for these vegetable commodities.

Ontario's contribution to greenhouse sales growth in the greenhouse vegetable market is significant and continues to expand. The province's share of national farm gate value for greenhouse vegetables remains the highest in Canada. Overall Ontario's 2004 greenhouse farm gate sales for tomatoes, cucumbers and peppers were valued at \$358,646,000. This represented 53 percent of Canada's total greenhouse farm gate

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value of \$677,446,060 for these three greenhouse vegetable commodities grown in the province, especially in the Leamington area of south-Western Ontario.

Ontario greenhouse growers have established a market presence and have gained a growing market share for their greenhouse tomatoes, cucumbers and peppers in various regions of the U.S. Established patterns of trade and commerce and proximity to Ontario growers have created vibrant American markets for growers of Ontario greenhouse vegetable produce.

Over a two year period from 2003 to 2004, the cumulative value of export sales of Ontario greenhouse tomatoes, cucumbers and peppers exceeded \$701 Million Canadian, or an overwhelming 70.52% of national export sales for these commodities. British Columbia captured 28.53% of the U.S. market with sales over \$283.6 Million, followed by Quebec with sales of almost \$8 Million. All the remaining Canadian provinces combined exported only \$2.3 Million of these three greenhouse vegetables.

Sales trends document the accelerating growth and widespread acceptance of quality Ontario grown greenhouse vegetable produce. However, a detailed examination of greenhouse vegetable sales into the U.S. markets, outlined in this report, suggests that there are still untapped opportunities for market development in States along established north-south trade and transportation corridors, as well as expansion possibilities in the Great Lakes regional markets.

Consumer tastes for greenhouse products are changing, yet overall consumption patterns in North America still fall well short of the level of greenhouse vegetable consumption by European consumers. The export market for quality, year-round greenhouse produce is potentially very large and the competition is already staking their claim in this market.

Ontario has developed an important market niche for greenhouse products in the United States based on quality commodities that are grown by leaders in the greenhouse vegetable sector of our provincial agricultural economy. They represent an important component of the national agricultural economy and an opportunity that must not be diminished or taken for granted.

Developing new markets for Ontario growers will be a challenge as new production facilities and investments are being made by the domestic greenhouse vegetable industry in the U.S. and the emergence of a distinctive, export-oriented, greenhouse growing infrastructure in Mexico. This competitive situation is attenuated by the substantially increased energy and operational costs of greenhouse production in the province, the rising value of the Canadian dollar, and changing commercial regulatory environments on all goods destined for U.S. markets.

Methodology

1. Sources of Data

Information for the analysis of greenhouse vegetable product exports into the United States was derived primarily from aggregated data gathered by Statistics Canada and the United States Census Bureau and accessed through Strategis, one of Canada's major government economic information systems. Other sources of primary data include the United States Food and Drug Administration, and the United States International Trade Commission.

The market research project staff also examined special reports on Ontario Greenhouse operations prepared by Statistics Canada, the Ontario Ministry of Agriculture, Food and Rural Affairs, Agriculture and Agri-Food Canada, the Regional Municipality of Niagara, and the Niagara Economic Development Corporation.

In addition, anecdotal information on export trends in the greenhouse vegetable industry was secured from agricultural and horticultural specialists in the governments of both Canada and the United States, staff in selected Canadian Consulate General offices in the Great Lakes Region, and Ontario growers.

Information on the methodology of the greenhouse survey is available in Greenhouse, Sod and Nursery Industries, Statistics Canada's catalogue no. 22-202-XIB.

2. Harmonized System (Harmonized Commodity Description and Coding System)

Canada and the United States have established a 'harmonized' coding system for commodities that facilitates trading relationships in goods as well as providing a basis for standardized documentation.

In this report, the following commodity codes are aggregated for export sales of greenhouse tomatoes, peppers and cucumbers:



HS 07020010 - TOMATOES, GREENHOUSE, FRESH OR CHILLED

HS 07070010 - CUCUMBERS AND GHERKINS, GREENHOUSE, FRESH OR CHILLED



HS 07096010 - PEPPERS OF THE GENUS CAPSICUM OR OF THE GENUS PIMENTA, GREENHOUSE, FRESH/CHILLED



THE CANADIAN AND ONTARIO GREENHOUSE VEGETABLE INDUSTRY

Overview

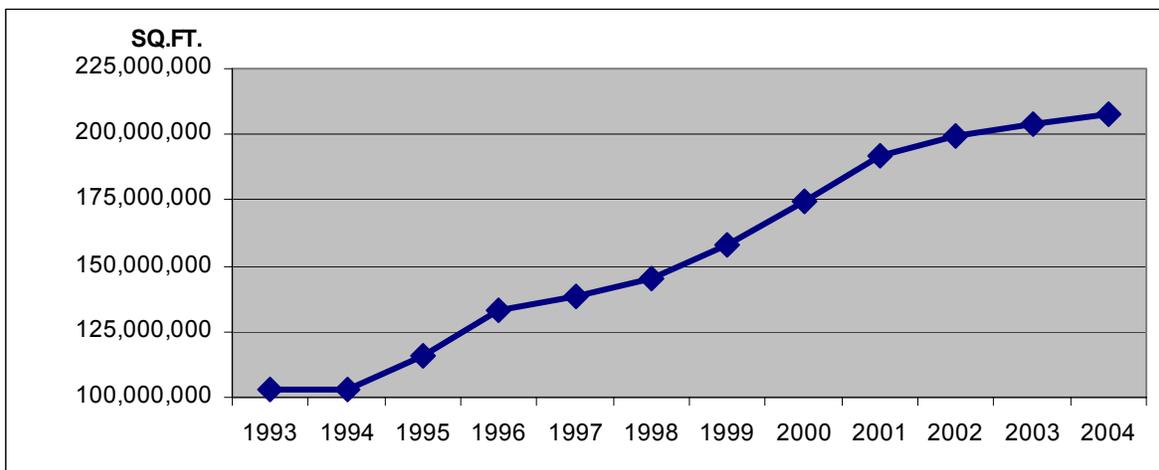
The greenhouse industry has exploded within Canada over the past few years! This is evident in all areas of greenhouse production whether in the growth of greenhouse floral products or growth in greenhouse vegetable commodities. It manifests itself in many ways--in the growth of greenhouse acreage, in capital investments in infrastructure, in consolidation efforts to realize economies of scale and in related secondary industry development that is occurring in various regions of the country.

The growth of greenhouse operations, captured in annual reports produced by Statistics Canada¹, benchmark the growth of both the floriculture and vegetable greenhouse industry. Two measures of this exceptional growth provide conclusive documentation of these trends: greenhouse growing acreage and greenhouse commodity sales.

Greenhouse Growing Acreage in Canada

Figure 1 captures the national greenhouse growth trajectory in terms of growing area. For example, in 1997, Canada's greenhouse production area was estimated to be over 138.7 Million sq. ft. with Ontario having the largest growing area at 64.9 Million sq. ft. followed by British Columbia's 31.6 Million sq. ft. and Quebec at 25.7 Million sq. ft.². By 2004, this total growing acreage had reached a peak of approximately 207.7 Million sq. ft., an increase of over 49.7% in just eight years.

Figure 1: GREENHOUSE GROWING ACREAGE IN CANADA, 1993-2004



Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

¹ Information for much of this section is derived from the Statistics Canada report *Greenhouse, Sod and Nursery Industries; Catalogue no. 22-202-XIB* which includes: Total Number of Greenhouses, Total Area of Greenhouses and Total Greenhouse Sales. Excluded from the survey frame are greenhouse areas maintained for non-commercial purposes.

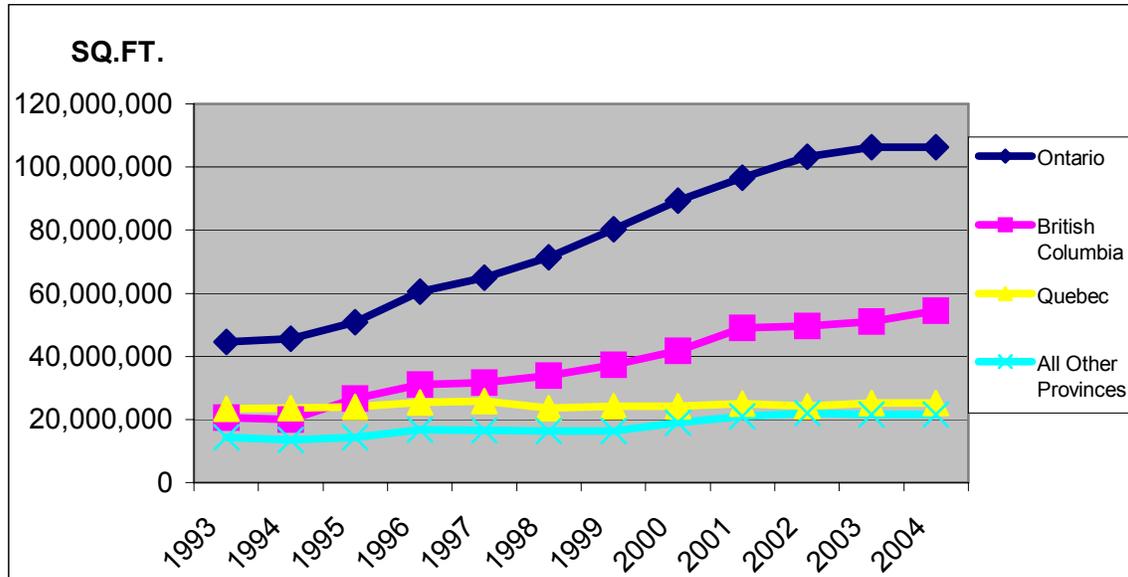
² Source: Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB, 1998

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Greenhouse Acreage in Canada's Growing Regions

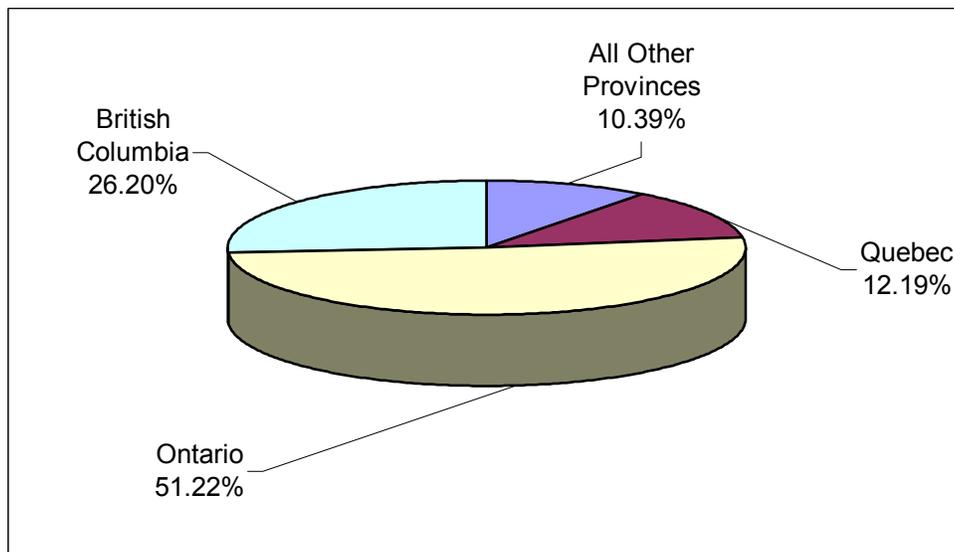
Figures 2 and 3 respectively reflect the distribution of greenhouse production acreage by province in 2004. Ontario continues to lead the greenhouse industry in total production area with 51.22% of Canada's total, followed by British Columbia with 26.20% of the total, Quebec with 12.19%, and all other provinces combined at 10.39% of total greenhouse growing space.

Figure 2: GREENHOUSE ACREAGE IN CANADA'S GROWING REGIONS, 1993-2004



Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

Figure 3: PROVINCIAL GREENHOUSE ACREAGE COMPARISON, 2004



Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

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Statistics Canada captures the production area exclusive to greenhouse vegetables. Table 1 reflects this comparison for the growing season ending 2004. Ontario has by far the largest acreage devoted to greenhouse tomatoes, a total in excess of 29.5 Million sq. ft., which represents 61.7% of the total area for this particular vegetable. Growers in British Columbia, however, have the largest proportion of the greenhouse peppers grown nationally under glass or plastic, with over 9 Million sq. ft. or 52.3 % of the total Canadian production area.

Table 1: GREENHOUSE VEGETABLE AREA (SQ.FT.) CANADA AND THE GROWING REGIONS, 2004

Commodity	Canada 2004	Ontario 2004	British Columbia 2004	Quebec 2004	All Others 2004
Greenhouse Tomatoes	47,811,500	29,500,000	12,283,000	4,180,000	1,848,500
Greenhouse Cucumbers	22,285,450	15,100,000	2,726,000	1,844,000	2,615,450
Greenhouse Peppers	17,305,600	7,728,000	9,042,000	32,000	503,600
TOTAL	87,402,550	52,328,000	24,051,000	6,056,000	4,967,550

Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

Table 2 provides a brief snapshot of the growth in greenhouse production area within Canada in 1998 and again in 2004. In the seven year period, tomato acreage almost doubled. However, growth in acreage for the production of quality greenhouse peppers increased by a whopping 266% from 4.7 Million acres to 17.3 Million acres over a relatively short period.

Table 2: GREENHOUSE PRODUCTION AREA (SQ.FT.) BY VEGETABLE COMMODITIES IN CANADA, 1998 AND 2004

Commodity	Canada 1998	Canada 2004	Growth %
Greenhouse Tomatoes	32,660,500	47,811,500	46
Greenhouse Cucumbers	16,759,400	22,285,450	33
Greenhouse Peppers	4,728,307	17,305,600	266
TOTAL	54,148,207	87,402,550	61

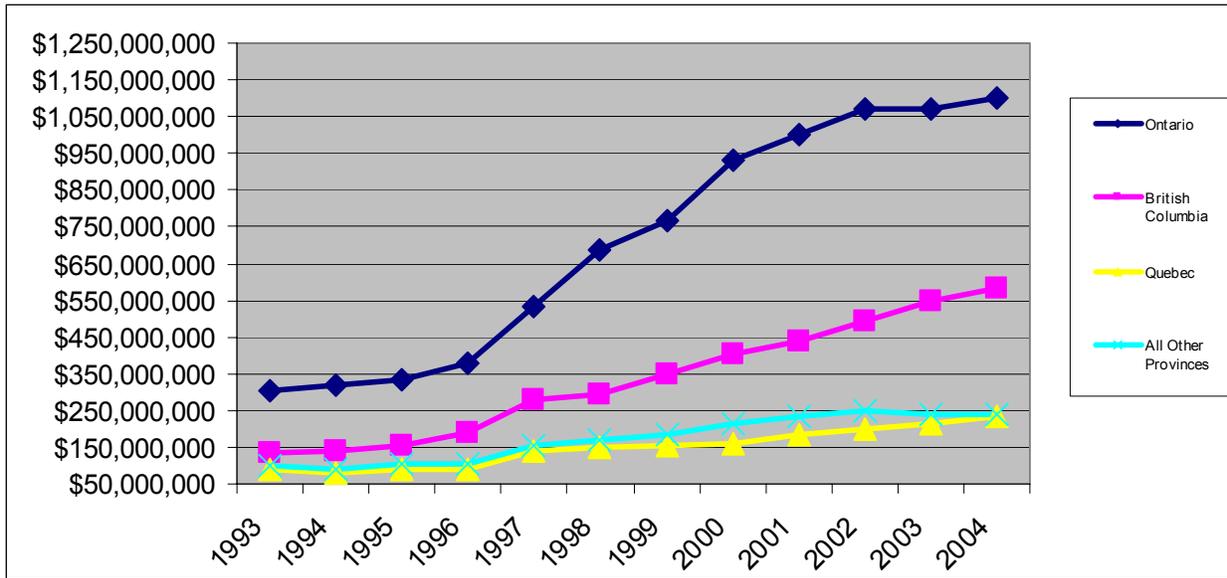
Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

Greenhouse Product Sales

Greenhouse product farm sales in Canada have grown in all regions of Canada. However, the growth has been uneven with Ontario and British Columbia assuming leadership in overall investment and development of both floral and vegetable products. Figure 4 charts the trends in national greenhouse farm sales value and by major growing regions of the country over the period 1993 to 2004.

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Figure 4: TOTAL GREENHOUSE SALES IN CANADA, 1993-2004



Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

Growth in this segment of Canadian agriculture has become an important component of the national economy. As the farm sales trend lines in Figure 4 indicate, in recent years the greenhouse industry has exceeded the two Billion dollar level of combined floral, fruit and vegetable sales. The two Billion dollar level puts the Canadian greenhouse industry in the same revenue range as canola and wheat (excluding durum) and also means that the industry accounts for about 15% of total crop farm cash receipts³.

In 2004, for example, greenhouse vegetable sales broke through the \$700 Million mark as a result of an expansion of both domestic and international markets, and the premium prices realized for quality Canadian greenhouse products. It also reflected an expansion in domestic greenhouse cucumber and pepper production in response to increased interest by consumers for these vegetable products. Weather contributed to this surge in export activity for Canadian product, especially for quality greenhouse tomatoes. Tomato prices were pushed up in the Fall of 2003 when hurricanes ravaged Florida's cash crops and heavy rains in California left tomatoes rotting on the vines.

The demand for greenhouse vegetables from both United States and Canadian markets has continued its upward trajectory as the remaining sections of this report will demonstrate.

Growth in the floriculture industry sales likewise continues at an exceptional pace especially in export market growth to the United States⁴.

³ Source: Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB, 2004

⁴ For an analysis of Canada's floriculture industry and markets see: *Ontario Greenhouse Floriculture Markets in the United States*. Niagara Economic and Tourism Corporation. December 2004

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Canadian Field Farm Gate Sales- Tomatoes, Cucumbers and Peppers



Table 3 highlights the modest increases in Canadian farm gate sales of fresh field tomatoes, peppers and cucumbers in the period 1997-2004. In 2004, Canada produced a total of over \$128 Million in farm gate value for field tomatoes, cucumbers and peppers. In general, these three fresh field commodities have shown uneven growth over the eight year span with total sales ranging from a low of \$94.3 Million in 2000 to slightly under \$128.3 Million in 2004.

Table 3: FARM GATE SALES OF FRESH FIELD TOMATOES, CUCUMBERS AND PEPPERS IN CANADA, 1997-2004

FIELD	1997	1998	1999	2000	2001	2002	2003	2004
Tomatoes	\$80,939,000	\$78,965,000	\$75,995,000	\$51,770,000	\$64,315,000	\$81,340,000	\$70,420,000	\$74,675,000
Peppers	\$16,430,000	\$17,846,000	\$21,005,000	\$18,045,000	\$21,106,000	\$22,795,000	\$24,910,000	\$26,000,000
Cucumbers	\$19,083,000	\$25,051,000	\$25,746,000	\$24,455,000	\$27,710,000	\$27,335,000	\$33,420,000	\$27,610,000
TOTAL VALUE	\$116,452,000	\$121,862,000	\$122,746,000	\$94,270,000	\$113,131,000	\$131,470,000	\$128,750,000	\$128,285,000

Source: Aggregated from Statistics Canada, Fruit and Vegetable Production, Catalogue no. 22-003-XIB



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Greenhouse Vegetable Production in Canada

Greenhouse vegetable production in Canada has been on the upswing in the last decade. This includes a variety of vegetable commodities including tomatoes, cucumbers, peppers, lettuce and other vegetables.

Table 4 highlights the relative growth of these vegetable commodities between 1997 and 2004. The overall total farm gate value of greenhouse vegetable production has grown from \$270.3 Million in 1997 to over \$720.4 Million in 2004, a dramatic increase of over 167 % in a short eight-year period.

Table 4: FARM GATE VALUE OF CANADIAN GREENHOUSE VEGETABLE PRODUCTION, 1997 AND 2004

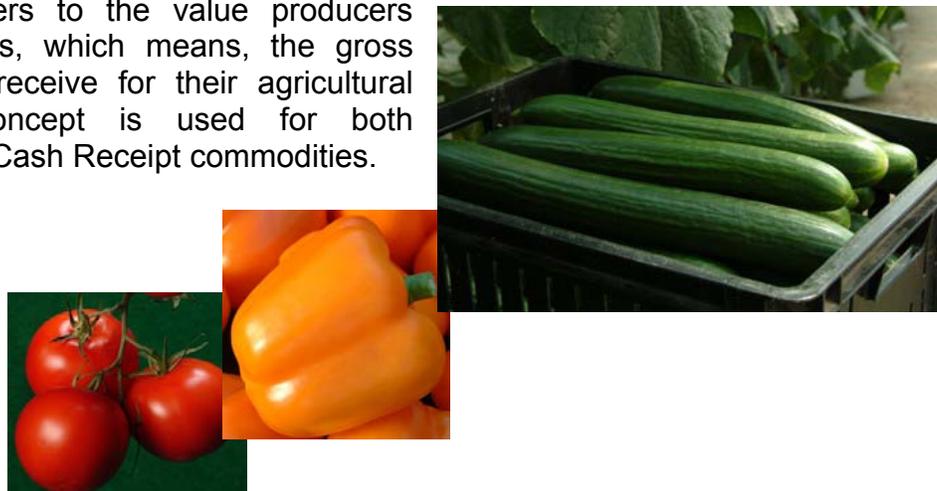
Commodity	Canada 1997	Canada 2004	Growth %
Greenhouse Tomatoes	\$140,151,900	\$413,421,400	195
Greenhouse Cucumbers	\$64,033,500	\$131,472,900	105
Greenhouse Peppers	\$43,641,900	\$132,551,760	203
Other Greenhouse Vegetables	\$22,495,830	\$42,976,048	92
TOTAL VALUE	\$270,323,130	\$720,422,108	167

Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

Three vegetable commodities dominate national greenhouse production: tomatoes, cucumbers and peppers. As of 2004, these three greenhouse vegetables had a farm gate value of \$677,446,060 or 94% of Canada’s total vegetable greenhouse production valued at \$720,422,108.

The remaining sections of the report will primarily focus on the farm gate value of greenhouse tomatoes, cucumbers and peppers. Statistics Canada publishes detailed separate statistical overviews for greenhouse tomato, cucumber and pepper production in the following reports: *Fruit and Vegetable Production, Catalogue no. 22-003-XIB* and *Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB*.

Farm gate value refers to the value producers receive for their crops, which means, the gross value the producers receive for their agricultural commodity. This concept is used for both Horticulture and Farm Cash Receipt commodities.



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Canadian Greenhouse Farm Gate Sales - Tomatoes, Cucumbers and Peppers

Unlike the slower farm gate sales trends of fresh field vegetable production, the farm gate value of Canada's greenhouse vegetables, specifically tomatoes, cucumbers and peppers, has grown dramatically in recent years. This is highlighted in the farm gate sales figures for specific commodities as noted in Table 5. For example, over the eight year period between 1997-2004, farm gate sales growth for greenhouse tomatoes climbed from approximately \$140 Million to \$413 Million by 2004, an increase of 195 percent.

By comparison, over the same period the farm gate value of tomatoes grown in Canadian greenhouses was more than 5 ½ times greater than the farm gate value of field tomatoes as noted in Table 3.

Table 5 provides farm gate value of greenhouse tomatoes, cucumbers and peppers. The three major commodities had combined farm sales of \$677,446,060 in 2004. 2001 was a stellar year for both greenhouse tomatoes and greenhouse cucumbers with increases in farm gate value of 22 percent and 10 percent respectively over 2000.

Table 5: CANADIAN FARM GATE VALUE OF GREENHOUSE TOMATOES, PEPPERS AND CUCUMBERS, 1997-2004

Greenhouse	1997	1998	1999	2000	2001	2002	2003	2004
Tomatoes	\$140,151,900	\$213,525,000	\$255,905,000	\$287,691,250	\$349,782,000	\$380,580,485	\$377,671,000	\$413,421,400
Cucumbers	\$64,033,500	\$107,016,867	\$117,351,700	\$129,881,100	\$144,885,616	\$110,571,100	\$118,605,000	\$131,472,900
Peppers	\$43,641,900	\$34,367,305	\$43,035,500	\$61,233,600	\$64,519,970	\$78,706,160	\$106,458,870	\$132,551,760

Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

The farm gate value of greenhouse peppers rose from approximately \$43.6 Million in 1997 to \$132.5 Million in 2004, a significant increase of over 203% in eight years.

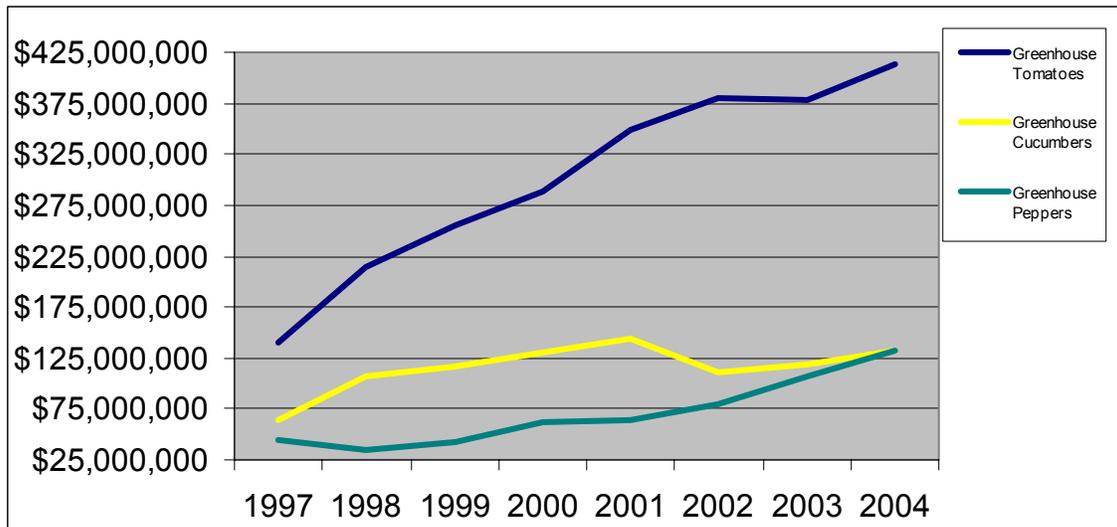
Likewise, greenhouse cucumber farm gate sales also increased rather dramatically. In the eight year period under analysis, the level of farm gate sales accelerated from \$64.0 Million to over \$131.4 Million by 2004, an increase in excess of 105%, even though there was a temporary sales decline in the upward trend in years 2002 and 2003.

As noted earlier in the report, greenhouse vegetable production also includes greenhouse lettuce and other non-traditional vegetables grown under plastic or glass. This 'Other' greenhouse crops category rose by over 92% in the period under analysis.

The overall national trend for farm gate sales of greenhouse tomato, cucumber and pepper commodities however, reflects exceptional growth and increased value for Canadian product. This is captured graphically in Figure 5.

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Figure 5: CANADIAN FARM GATE VALUE OF GREENHOUSE TOMATOES, CUCUMBERS AND PEPPERS, 1997-2004



Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

Ontario Greenhouse Farm Gate Sales - Tomatoes, Cucumbers and Peppers

Ontario's contribution to the sales growth in greenhouse vegetable markets is significant and continues to expand. Overall, the province's share of national farm gate value for greenhouse vegetables remains the highest in Canada.

Ontario's greenhouse tomato farm gate value has risen from slightly over \$71 Million in 1997 to over \$210.2 Million in the period 1997-2004, an increase of 196%, as highlighted in Table 6 and Figure 6. This period of growth in farm gate sales also saw the expansion of greenhouse operations in other provinces, notably British Columbia and Quebec. Nevertheless, Ontario production continues to accelerate and the province has maintained a pre-eminent position in this market averaging 50% of all national farm gate sales for this particular commodity. Although Ontario sales dropped in 2003, no doubt as a direct result of production cut-backs arising from a cross border dispute that challenged Ontario greenhouse tomato growers, production has since resumed its upward trajectory.

Ontario greenhouse cucumber growers experienced a short-term decline in farm gate sales in 2002 and 2003 from a \$107.7 Million peak performance in farm sales in 2001. However, since this lull in production, the output of Ontario's greenhouse cucumber farm gate sales have rebounded and increased to over \$92 Million in 2004.

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Ontario pepper growers have increased their production and their farm gate sales from over \$11.5 Million in 1997 to over \$56.2 Million in 2004 with most of the growth occurring rapidly since 2001.

Overall Ontario's 2004 greenhouse farm gate sales for tomatoes, cucumbers and peppers were valued at \$358,646,000. This represents 53 percent of Canada's total greenhouse farm gate value of \$677,446,060 for these three greenhouse vegetable commodities.

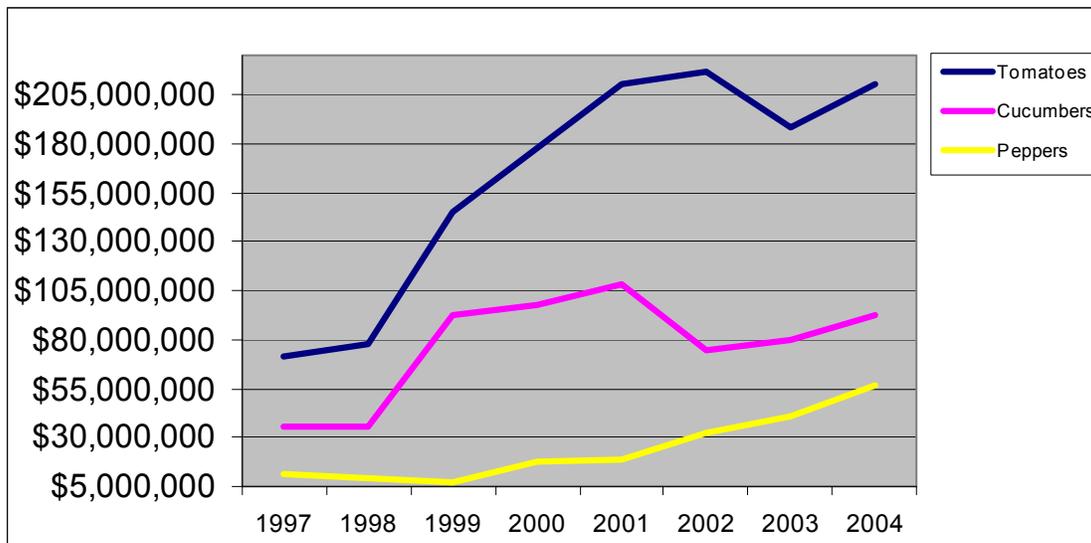


Table 6: ONTARIO FARM GATE VALUE OF GREENHOUSE TOMATOES, CUCUMBERS AND PEPPERS, 1997-2004

Greenhouse	1997	1998	1999	2000	2001	2002	2003	2004
Tomatoes	\$71,069,000	\$126,420,000	\$145,101,000	\$177,223,000	\$210,238,000	\$216,611,685	\$188,274,000	\$210,245,000
Cucumbers	\$35,932,000	\$77,822,467	\$91,863,000	\$97,252,000	\$107,667,000	\$74,500,000	\$81,700,000	\$92,151,000
Peppers	\$11,514,000	\$8,940,000	\$7,600,000	\$17,983,000	\$18,385,000	\$32,429,000	\$40,935,000	\$56,250,000

Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

Figure 6: ONTARIO FARM GATE VALUE OF GREENHOUSE TOMATOES, PEPPERS AND CUCUMBERS, 1997-2004



Source: Aggregated from Statistics Canada, Greenhouse, Sod and Nursery Industries, Catalogue no. 22-202-XIB

GREENHOUSE VEGETABLE EXPORT SALES TO THE UNITED STATES

Introduction

The analysis that follows examines the major export markets for Canadian and especially Ontario greenhouse vegetable commodities. U.S. consumers are increasing their purchases of quality greenhouse vegetable produce and this trend is likely to continue. Ontario greenhouse vegetable growers understand the importance of these established and emerging markets in the United States and their overall importance to the agricultural sector of the provincial economy.

This section of the report will examine the growing Canadian and Ontario presence in this burgeoning U.S. market. It will assess the current size of export markets in terms of sales of specific greenhouse products, ascertain past export sales trends into the most important state markets, and provide a preliminary assessment of the potential to expand markets for our domestic greenhouse produce. Information for this analysis has been secured from a number of reports prepared by Statistics Canada and the Economic Research Service of the United States Department of Agriculture and the United States International Trade Commission.

In the analysis that follows all Canadian export sales values are expressed in Canadian funds.

The initial analysis will focus on and provide a snap shot of overall export greenhouse sales into the United States for Canadian and Ontario greenhouse tomatoes, cucumbers and peppers. This will be followed by a trend analysis of major state markets for these three greenhouse commodities.

Canadian Export Greenhouse Vegetable Market Sales to the United States

Table 7 and Figure 7 highlight the cumulative export sales of Canadian greenhouse vegetables into markets of the continental United States over the most recent two years, 2003 and 2004. The analysis shows the distribution of greenhouse vegetable export sales by major growing regions of Canada. The information, derived from aggregated data published on Strategis.gc.ca, specifically refers to the commodities that are the focus of this study: greenhouse tomatoes, cucumbers and peppers.

Over the two year period, the cumulative export sales value of Ontario greenhouse tomatoes, cucumbers and peppers exceeded \$701 Million Canadian, or an overwhelming 71% of national export sales for these commodities. British Columbia captured 28.5% of the U.S. market with sales over \$283.6 Million, followed by Quebec

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with sales of just over \$7 Million. All the remaining Canadian provinces combined exported only \$2.3 Million of the three greenhouse vegetables.

Table 7: CANADIAN EXPORT SALES OF GREENHOUSE VEGETABLES, 2003-2004

PROVINCE	EXPORT VALUE	PERCENT
British Columbia	\$283,697,499	28.53%
Ontario	\$701,210,891	70.52%
Quebec	\$7,069,960	0.71%
All Other Provinces	\$2,295,515	0.23%
TOTAL	\$994,273,865	100.00%

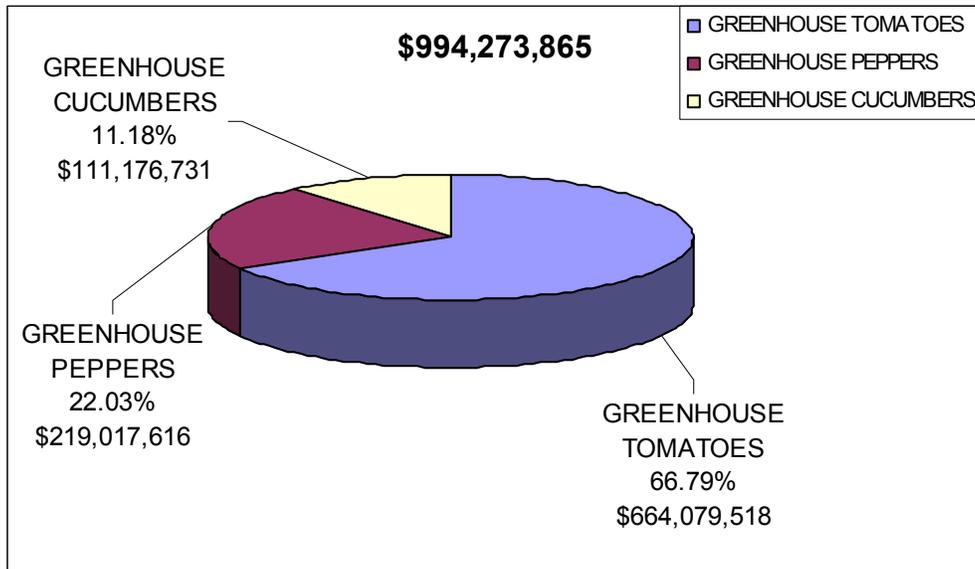
Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

The growth of export sales in U.S. markets reflects changing consumer tastes and preferences toward greenhouse vegetable products. Ontario and Canadian growers are responding to these trends. Greenhouse tomatoes are by far the predominant fresh vegetable exported into U.S. markets with approximately \$664.1 Million, or 66.8% of Canadian greenhouse vegetable export sales.

Greenhouse pepper production has also enjoyed exceptional growth, as noted earlier in Table 2, and much of this particular product has been exported into U.S. markets. Pepper exports over the 2003-2004 period reached \$219.0 Million in sales, or one quarter of the three classes of produce.

Greenhouse cucumber sales constitute just over 11% of national greenhouse vegetable export markets.

Figure 7: CANADIAN GREENHOUSE VEGETABLE SALES TO THE UNITED STATES BY COMMODITY, 2003-2004



Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

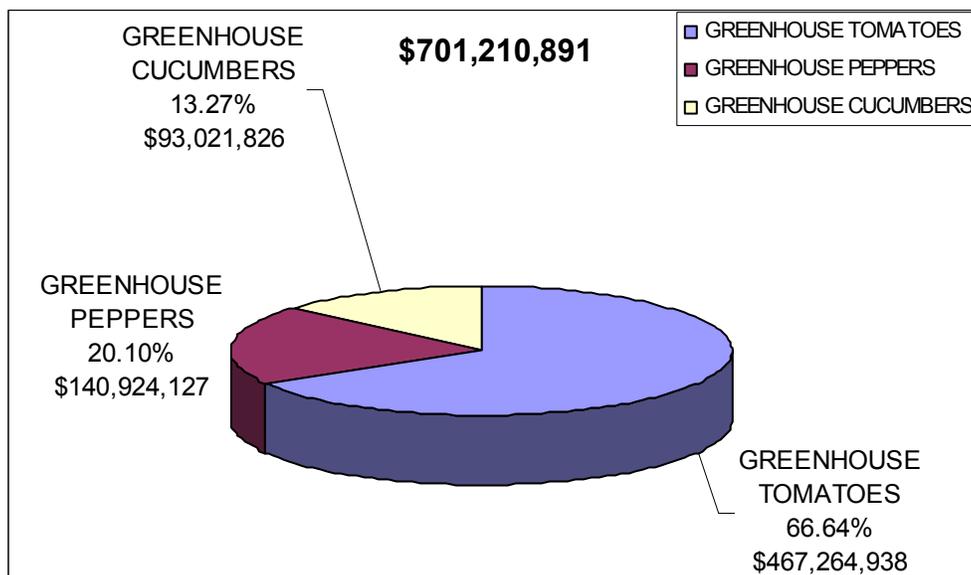
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Ontario Export Greenhouse Vegetable Market Sales to the United States

Ontario growers have achieved exceptional sales penetration into U.S. markets with their greenhouse vegetable products. Figure 8 documents Ontario's export sales domination of greenhouse tomatoes with 66.6% of total greenhouse vegetable exports, a direct reflection of national market share. Provincial growers sold approximately \$467 Million to U.S. consumers over the 2003 and 2004 period. Most of this growing activity was centred in the Leamington area of south-western Ontario.

In this same period, Ontario's export sales of peppers fell slightly below the national concentration, suggesting more intensive growing activity for this commodity outside of the province, especially in British Columbia. The value of export markets for Ontario peppers exceeded \$140.9 Million, or 20.1% of Ontario's greenhouse vegetable crop. Ontario's greenhouse cucumber export sales to American consumers over the 2003 to 2004 period was valued at \$93 Million, or 13.27% of Ontario's total greenhouse vegetable sales.

Figure 8: ONTARIO GREENHOUSE VEGETABLE SALES TO THE UNITED STATES BY COMMODITY, 2003-2004



Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

Greenhouse Tomato Export Sales to the United States

Consumers in the United States constitute the largest market for greenhouse tomato products. Increasingly, their preference for quality produce is reaching new heights. Likewise, buyers across America are now beginning to expect year-round availability and consistency of greenhouse tomato products. This is evidenced in a growing consumer preference for greenhouse tomatoes which now represent an estimated 17% of U.S. fresh tomato supply; 37% of all fresh tomatoes sold in retail stores are sourced from greenhouse operations. U.S. distributors import more greenhouse tomatoes than American growers currently produce domestically. Canada enjoys an estimated 46% of this import market.⁵

Table 8 provides a detailed snapshot of export sales of greenhouse tomatoes to U.S. consumers from the growing regions of Canada. The statistical profile covers export values for 2003 and 2004, and the combined sales values for the two years. As noted earlier in this analysis, Ontario has developed a critical mass of greenhouse growers in the south-western region of Ontario whose primary greenhouse product is tomatoes and, as a result, the province enjoys the largest sales volume of this particular commodity in U.S. markets. Although still the dominant source of Canadian greenhouse tomatoes for export, Ontario saw its share of sales decline proportionately between 2003 and 2004. British Columbia has made significant investments in greenhouse production infrastructure and has expanded its market penetration along the West Coast of the United States. Consequently, this region of Canada increased its value of export markets in the U.S. by \$30 Million over 2003, to reach over \$110 Million in market sales.



⁵ Linda Calvin and Roberta Cook. *North American Greenhouse Tomatoes Emerge as a Major Market Force*. Amberwaves. Volume 3. Issue 2, April 2005

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Table 8: GREENHOUSE TOMATO EXPORT SALES TO THE UNITED STATES BY MAJOR GROWING REGION, 2003-2004

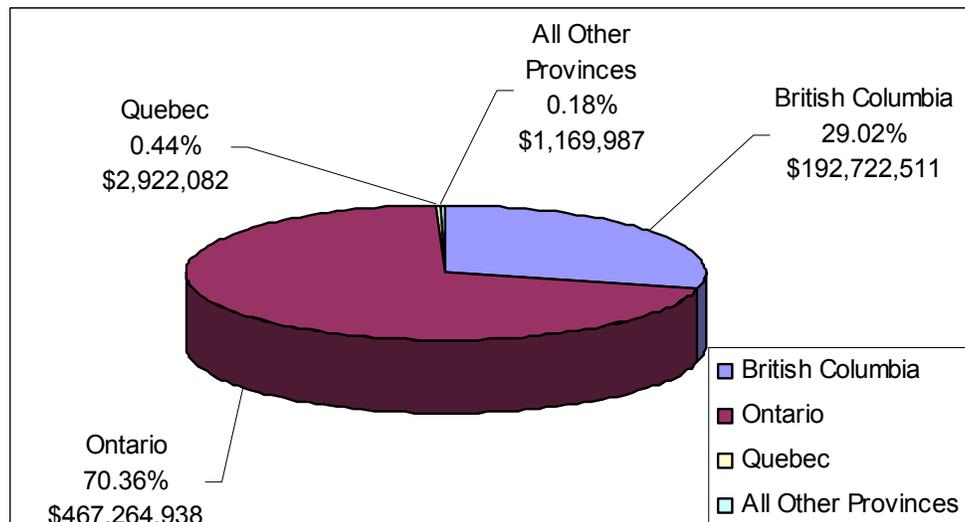
2003	Province	%
\$ 82,116,156	British Columbia	25.45%
\$238,734,962	Ontario	74.00%
\$ 1,384,176	Quebec	0.43%
\$ 397,855	All Other Provinces	0.12%

2004	Province	%
\$110,606,355	British Columbia	32.39%
\$228,529,976	Ontario	66.93%
\$ 1,537,906	Quebec	0.45%
\$ 772,132	All Other Provinces	0.23%

TOTAL	Province	%
\$192,722,511.00	British Columbia	29.02%
\$467,264,938.00	Ontario	70.36%
\$ 2,922,082.00	Quebec	0.44%
\$ 1,169,987.00	All Other Provinces	0.18%
\$664,079,518.00		100.00%

Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

Figure 9: CANADIAN GREENHOUSE TOMATO SALES TO THE UNITED STATES, 2003-2004



Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

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Greenhouse Pepper Export Sales to the United States

Consumers in the U.S. are increasingly being attracted to the variety, quality and consistency of fresh greenhouse peppers from Canadian and European growers. In recent years the volume of Canadian greenhouse product imported by U.S. wholesalers and distributors has ranged between 35 and 45 Million kilograms⁶. Most of this fresh produce has been grown in the greenhouses of Ontario or British Columbia and are exported almost year round.⁷



⁶ United States International Trade Commission. *Monitoring of U.S. Imports of Peppers. November 2004*

⁷ The authors of *Monitoring of U.S. Imports of Peppers* have confirmed that the bulk of the Canadian imported peppers have been sourced from greenhouse growers.

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Table 9 and Figure 10 capture the export sales distribution of greenhouse peppers from Canada’s predominant growing regions over the 2003-2004 year period. Ontario leads Canadian export markets with sales of \$140.9 Million. This represents almost two-thirds of all Canadian greenhouse pepper export sales into American markets.

Table 9: CANADIAN GREENHOUSE PEPPER EXPORT SALES TO THE UNITED STATES, 2003-2004

2003	Province	%
\$75,112,528	Ontario	68.06%
\$34,618,443	British Columbia	31.37%
\$523,496	Quebec	0.47%
\$109,863	All Other Provinces	0.10%

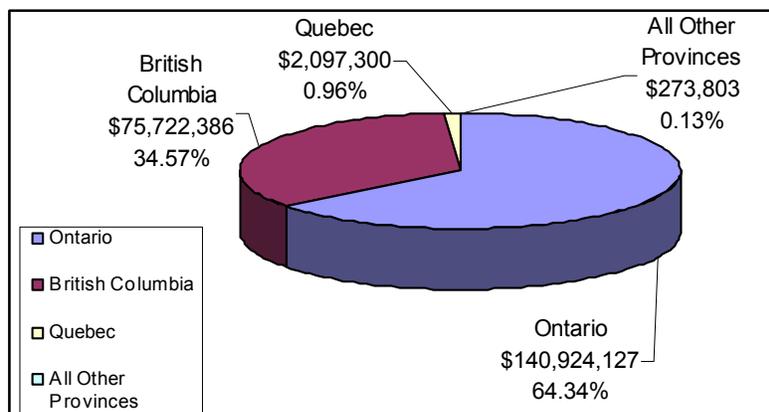
2004	Province	%
\$65,811,599	Ontario	60.57%
\$41,103,943	British Columbia	37.83%
\$1,573,804	Quebec	1.45%
\$163,940	All Other Provinces	0.15%

TOTAL	Province	%
\$140,924,127	Ontario	64.34%
\$75,722,386	British Columbia	34.57%
\$2,097,300	Quebec	0.96%
\$273,803	All Other Provinces	0.13%
\$219,017,616		100.00%

Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

British Columbia secured over 34% of this fresh vegetable market, while Quebec and all other Canadian provinces accounted for less than 2% of export market sales into the U.S.

Figure 10: CANADIAN GREENHOUSE PEPPER EXPORT SALES TO THE UNITED STATES, 2003-2004



Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

Greenhouse Cucumber Export Sales to the United States

In Table 5, it was noted that the growth of Canadian farm gate value for greenhouse cucumbers had risen from a \$64 Million national base in 1997 to \$131.4 Million in 2004 with a peak in export sales of \$144.8 Million in 2001.

Export sales of cucumbers to the U.S. markets have grown with rather noticeable fluctuations from year to year. For example, in 2004 Canadian export sales of cucumbers to the U.S. were approximately \$50 Million, a decline of \$10 Million over 2003 sales. Nevertheless, greenhouse cucumber export sales to U.S. markets tracked over a longer time period have exhibited steady growth.



Ontario growers have secured the majority of U.S. export sales of greenhouse cucumbers in recent years.

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Table 10 highlights the combined provincial sales for 2003 and 2004 at over \$93 Million, or over 83% of the national export market for this commodity. British Columbia averaged 13.7 % of the U.S. export market over this same period. Quebec and all other provinces had negligible export sales for greenhouse cucumbers.

Table 10: CANADIAN GREENHOUSE CUCUMBER EXPORT SALES TO THE UNITED STATES, 2003-2004

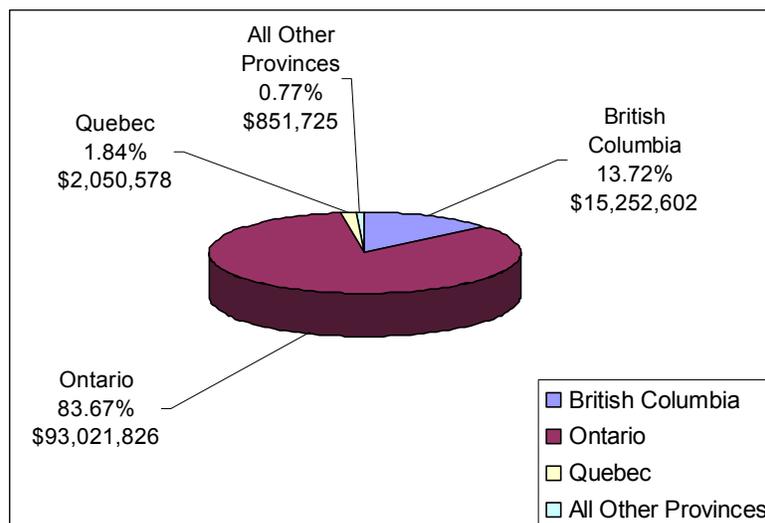
2003	Province	%
\$ 8,663,218	British Columbia	14.14%
\$ 51,503,099	Ontario	84.04%
\$ 712,881	Quebec	1.16%
\$ 407,938	All Other Provinces	0.67%
\$ 61,287,136		100.00%

2004	Province	%
\$ 6,589,384	British Columbia	13.21%
\$ 41,518,727	Ontario	83.22%
\$ 1,337,697	Quebec	2.68%
\$ 443,787	All Other Provinces	0.89%
\$ 49,889,595		100.00%

TOTAL	Province	%
\$ 15,252,602.00	British Columbia	13.72%
\$ 93,021,826.00	Ontario	83.67%
\$ 2,050,578.00	Quebec	1.84%
\$ 851,725.00	All Other Provinces	0.77%
\$ 111,176,731.00		100.00%

Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

Figure 11: CANADIAN GREENHOUSE CUCUMBER EXPORTS SALES TO THE UNITED STATES, 2003-2004



Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

GREENHOUSE VEGETABLE EXPORT SALES IN SELECTED UNITED STATES

The preceding section addressed U.S. market sales of greenhouse vegetables at the macro level for Canada and Ontario. Overall there has been significant growth in export market sales from the predominant greenhouse growing regions of Ontario and British Columbia. However, the distribution pattern of Canadian and Ontario products is very uneven and is closely aligned with the north-south trade corridors that connect Canadian and U.S. consumer markets.

The final section of this market analysis of greenhouse vegetable export sales will examine the various state destinations for the three key greenhouse products that have been the focus of this study: tomatoes, cucumbers and peppers.



The focus of this analysis will be the recent export market sales to the U.S. by Ontario growers.

Tables 11 and 12 provide a rich, comprehensive statistical overview of export markets that have been developed by Ontario wholesalers, distributors and individual greenhouse vegetable growers. Information for this table has been constructed from Canadian export data available through Strategis, a national statistical reporting system that serves governments and the wider business community.

Table 11 sets out the total aggregated greenhouse vegetable exports sales, in Canadian dollars, by individual states grouped within larger geographic regions of the U.S. Table 12 identifies sales for each of the 10 largest state markets. Both tables offer a wealth of detailed statistical information and profiles of greenhouse vegetable product sales over the period of 2003-2004. Readers of this report will be able to focus their attention on the distribution of specific greenhouse vegetable sales in Canadian dollars, product and by state for each of the two years under analysis and by combined sales over the two year period.

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Table 11: ONTARIO GREENHOUSE VEGETABLE SALES TO THE UNITED STATES, 2003-2004

U.S. REGION	STATE	2003	2004	TOTAL
Midwest Region	NEW YORK	\$30,470,056	\$28,812,565	\$59,282,621
	PENNSYLVANIA	\$28,772,482	\$21,063,950	\$49,836,432
	NEW JERSEY	\$28,195,856	\$21,812,455	\$50,008,311
	MARYLAND	\$12,516,499	\$12,625,620	\$25,142,119
	DELAWARE	\$598,626	\$150,578	\$749,204
	DISTRICT OF COLUMBIA	\$275,045	\$657,944	\$932,989
New England Region	MASSACHUSETTS	\$28,932,421	\$27,174,340	\$56,106,761
	CONNECTICUT	\$8,145,424	\$10,016,027	\$18,161,451
	VERMONT	\$295,845	\$284,785	\$580,630
	MAINE	\$3,848,339	\$2,217,733	\$6,066,072
	RHODE ISLAND	\$540,093	\$404,888	\$944,981
	NEW HAMPSHIRE	\$449,725	\$656,412	\$1,106,137
Great Lakes Region	MICHIGAN	\$41,754,136	\$41,073,948	\$82,828,084
	ILLINOIS	\$19,058,632	\$20,404,640	\$39,463,272
	OHIO	\$18,484,530	\$13,876,361	\$32,360,891
	WISCONSIN	\$6,525,822	\$5,090,718	\$11,616,540
	INDIANA	\$13,119,326	\$10,226,288	\$23,345,614
Plains Region	MISSOURI	\$4,744,397	\$4,715,020	\$9,459,417
	IOWA	\$5,457,156	\$6,395,499	\$11,852,655
	NORTH DAKOTA	\$985,208	\$199,637	\$1,184,845
	SOUTH DAKOTA	\$0	\$0	\$0
	NEBRASKA	\$3,869	\$472,289	\$476,158
	KANSAS	\$2,577,163	\$1,989,729	\$4,566,892
	MINNESOTA	\$7,447,252	\$6,335,022	\$13,782,274
Southeast Region	FLORIDA	\$25,110,512	\$26,870,755	\$51,981,267
	GEORGIA	\$8,272,409	\$8,538,436	\$16,810,845
	VIRGINIA	\$11,633,883	\$4,489,578	\$16,123,461
	NORTH CAROLINA	\$9,735,254	\$16,545,304	\$26,280,558
	SOUTH CAROLINA	\$2,446,859	\$1,947,175	\$4,394,034
	ARKANSAS	\$55,845	\$1,219,139	\$1,274,984
	ALABAMA	\$2,429,130	\$1,131,476	\$3,560,606
	TENNESSEE	\$1,467,836	\$878,044	\$2,345,880
	WEST VIRGINIA	\$510,423	\$379,595	\$890,018
	LOUISIANA	\$1,803,304	\$1,492,977	\$3,296,281
	KENTUCKY	\$7,518,080	\$5,798,970	\$13,317,050
	MISSISSIPPI	\$172,580	\$21,938	\$194,518
Far West Region	CALIFORNIA	\$9,039,377	\$5,047,878	\$14,087,255
	NEVADA	\$0	\$0	\$0
	HAWAII	\$0	\$0	\$0
	OREGON	\$9,369	\$22,463	\$31,832
	WASHINGTON	\$3,091,668	\$6,228,899	\$9,320,567
	ALASKA	\$0	\$0	\$0
Southwest Region	ARIZONA	\$4,200,477	\$3,001,436	\$7,201,913
	NEW MEXICO	\$0	\$13,570	\$13,570
	OKLAHOMA	\$1,681,691	\$448,955	\$2,130,646
	TEXAS	\$8,237,149	\$10,760,293	\$18,997,442
Rocky Mountain Region	COLORADO	\$2,963,291	\$2,580,227	\$5,543,518
	IDAHO	\$2,855	\$0	\$2,855
	UTAH	\$2,411,577	\$1,129,244	\$3,540,821
	MONTANA	\$0	\$16,620	\$16,620
	WYOMING	\$0	\$0	\$0
TOTAL		\$365,991,471	\$335,219,420	\$701,210,891

Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

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Table 12: ONTARIO GREENHOUSE VEGETABLE SALES TO THE TOP TEN UNITED STATES, 2003-2004

STATE	2003	2004	TOTAL
MICHIGAN	\$41,754,136	\$41,073,948	\$82,828,084
Tomatoes	\$26,195,494	\$25,498,361	\$51,693,855
Cucumbers	\$7,950,481	\$5,509,483	\$13,459,964
Peppers	\$7,608,161	\$10,066,104	\$17,674,265
NEW YORK	\$30,470,056	\$28,812,565	\$59,282,621
Tomatoes	\$17,504,829	\$18,091,196	\$35,596,025
Cucumbers	\$5,288,138	\$3,628,245	\$8,916,383
Peppers	\$7,677,089	\$7,093,124	\$14,770,213
MASSACHUSETTS	\$28,932,421	\$27,174,340	\$56,106,761
Tomatoes	\$17,999,945	\$17,573,007	\$35,572,952
Cucumbers	\$6,140,501	\$4,188,471	\$10,328,972
Peppers	\$4,791,975	\$5,412,862	\$10,204,837
FLORIDA	\$25,110,512	\$26,870,755	\$51,981,267
Tomatoes	\$15,719,104	\$16,637,769	\$32,356,873
Cucumbers	\$2,602,200	\$2,257,086	\$4,859,286
Peppers	\$6,789,208	\$7,975,900	\$14,765,108
NEW JERSEY	\$28,195,856	\$21,812,455	\$50,008,311
Tomatoes	\$17,666,102	\$17,482,629	\$35,148,731
Cucumbers	\$4,075,238	\$3,164,834	\$7,240,072
Peppers	\$6,454,516	\$1,164,992	\$7,619,508
PENNSYLVANIA	\$28,772,482	\$21,063,950	\$49,836,432
Tomatoes	\$19,459,134	\$15,536,174	\$34,995,308
Cucumbers	\$2,785,179	\$1,608,162	\$4,393,341
Peppers	\$6,528,169	\$3,919,614	\$10,447,783
ILLINOIS	\$19,058,632	\$20,404,640	\$39,463,272
Tomatoes	\$11,872,297	\$14,924,728	\$26,797,025
Cucumbers	\$2,081,380	\$1,774,506	\$3,855,886
Peppers	\$5,104,955	\$3,705,406	\$8,810,361
OHIO	\$18,484,530	\$13,876,361	\$32,360,891
Tomatoes	\$12,989,979	\$9,721,473	\$22,711,452
Cucumbers	\$2,999,697	\$2,607,019	\$5,606,716
Peppers	\$2,494,854	\$1,547,869	\$4,042,723
NORTH CAROLINA	\$9,735,254	\$16,545,304	\$26,280,558
Tomatoes	\$6,386,784	\$12,011,628	\$18,398,412
Cucumbers	\$666,878	\$475,206	\$1,142,084
Peppers	\$2,681,592	\$4,058,470	\$6,740,062
MARYLAND	\$12,516,499	\$12,625,620	\$25,142,119
Tomatoes	\$9,806,406	\$9,719,939	\$19,526,345
Cucumbers	\$708,218	\$1,010,166	\$1,718,384
Peppers	\$2,001,875	\$1,895,515	\$3,897,390
ALL OTHERS	\$122,961,093	\$104,959,482	\$227,920,575
TOTAL	\$365,991,471	\$335,219,420	\$701,210,891

Source: Statistics Table created from Aggregated Data published on Strategis.gc.ca

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The concluding section of this report presents charts with information describing various sales features of Ontario's ten largest state markets for greenhouse vegetable exports. Information for the following analysis was derived from Statistics Canada as published on Strategis.gc.ca.

Analysis

The predominant pattern of greenhouse vegetable sales into the U.S. underscores the evolution of export activity and market development for perishable commodities originating in Ontario. Ontario greenhouse vegetable growers have developed some of their strongest business ties with wholesale and retail markets in the Great Lakes region of the continent. The two largest markets are in the states of Michigan and New York.

Michigan has been the largest market for Ontario greenhouse vegetable product sales for a number of years. Combined export sales of tomatoes, cucumbers and peppers over the period 2003-2004 exceeded \$82.8 Million with tomato products valued at \$51.7 Million or 62% of this total. The state's proximity to the predominant greenhouse vegetable growing areas in the border community of Leamington in south-western Ontario has underpinned the growth of export markets along north-south transportation and trade corridors for Canadian product.

The combined sales of greenhouse vegetable product into New York State, the second biggest market for Ontario greenhouse vegetable products, reached \$59.2 Million in the two year period under study. Greenhouse tomato sales constituted over 60% of the combined greenhouse vegetable export sales into that state. The sale of greenhouse cucumbers and peppers declined slightly between 2003 and 2004.

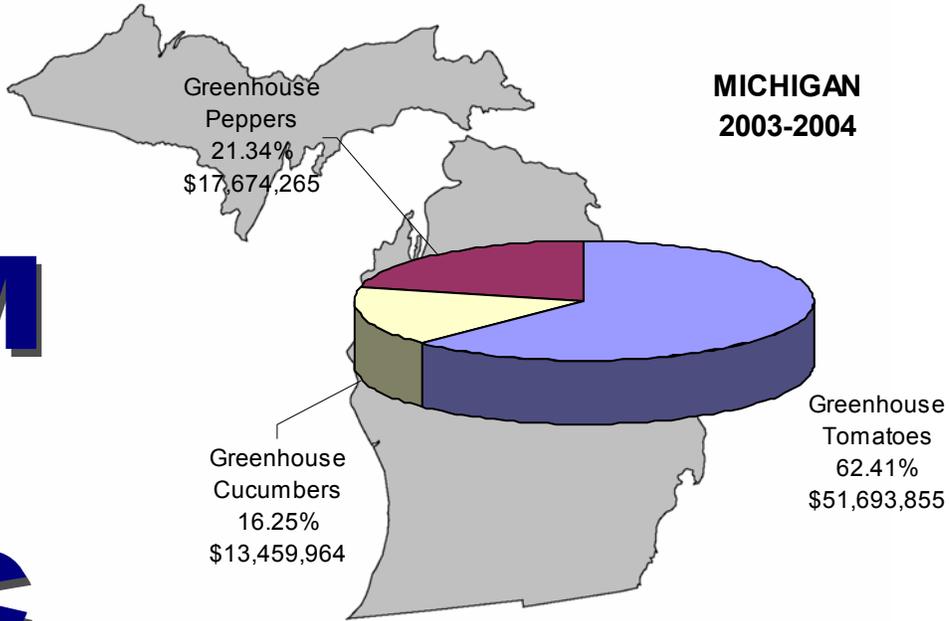
Sales of Ontario greenhouse vegetable commodities in Illinois and Ohio were ranked within the top ten U.S. markets (7th and 8th), at \$39.4 and \$32.3 Million respectively, in combined sales over the two year period. Consumers in both states primarily bought Ontario greenhouse tomatoes with sales reaching \$26.8 in Illinois and \$22.7 Million in Ohio. Given the population base of both states, it would appear that there are opportunities to broaden consumer markets for this product as well as substantially increase consumption of Ontario greenhouse cucumbers and peppers.

In the New England region, Massachusetts ranked third in total import sales of Ontario greenhouse vegetables with combined sales of over \$56.1 Million. Consumer interest in greenhouse cucumbers and peppers is relatively high with sales for both commodities accounting for approximately 37% of total greenhouse purchases from Ontario growers. It would appear that there are market development opportunities for Ontario's greenhouse vegetable products in the other New England states.

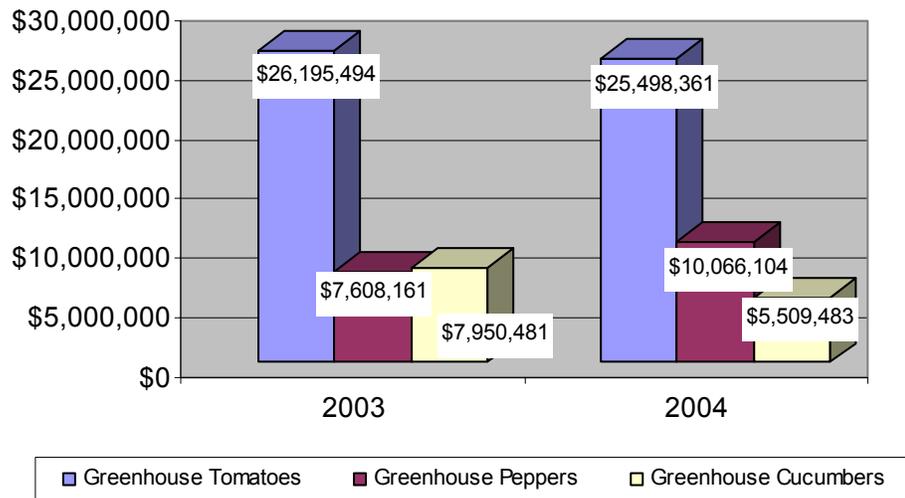
The Mid-Atlantic coastal region is a major market for Ontario greenhouse vegetable commodities. Markets are established and continue to grow along the Eastern Seaboard states. Consumers in five of the top ten sales markets are buyers of Ontario greenhouse produce: New Jersey (5th), Pennsylvania (6th), North Carolina (9th), Maryland (10th) and Florida (4th). In each of these states, the preferred product is greenhouse grown tomatoes with sales in four of the five states exceeding two-thirds of all Ontario greenhouse vegetable purchases.

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ONTARIO GREENHOUSE VEGETABLE SALES to MICHIGAN 2003 & 2004				
Michigan	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$26,195,494	\$25,498,361	\$51,693,855
Greenhouse Cucumbers	07070010	\$7,950,481	\$5,509,483	\$13,459,964
Greenhouse Peppers	07096010	\$7,608,161	\$10,066,104	\$17,674,265
		\$41,754,136	\$41,073,948	\$82,828,084

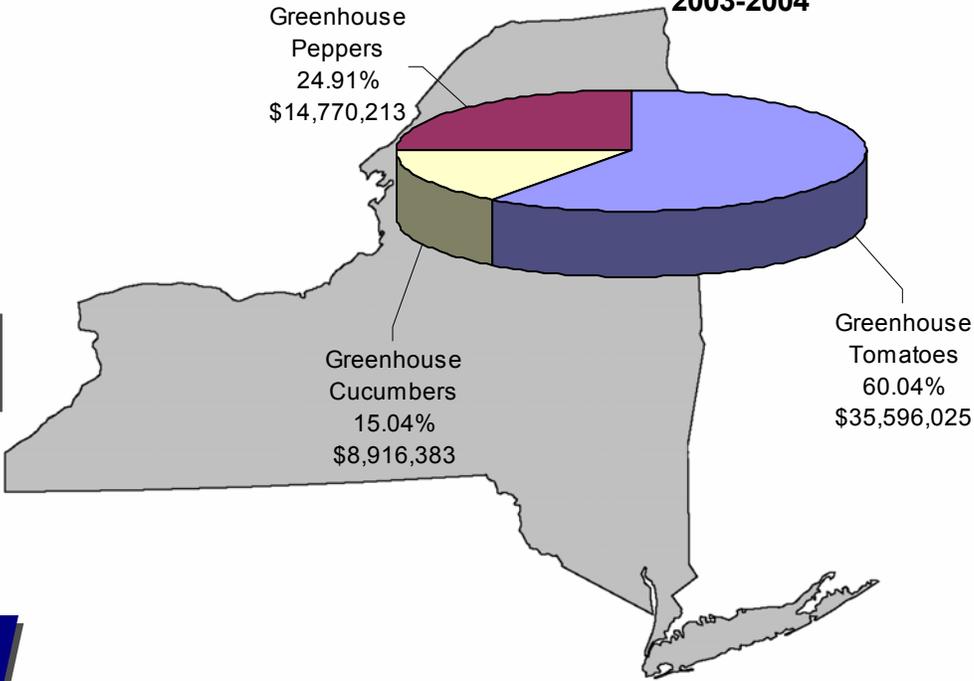


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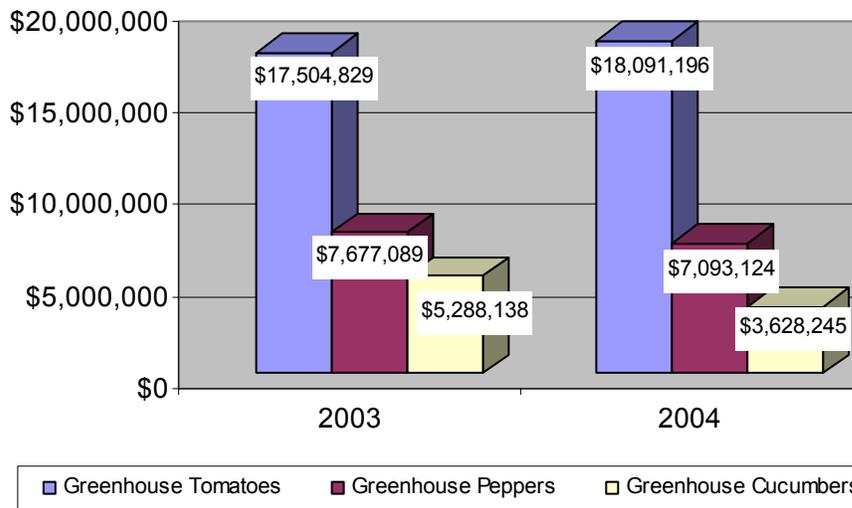
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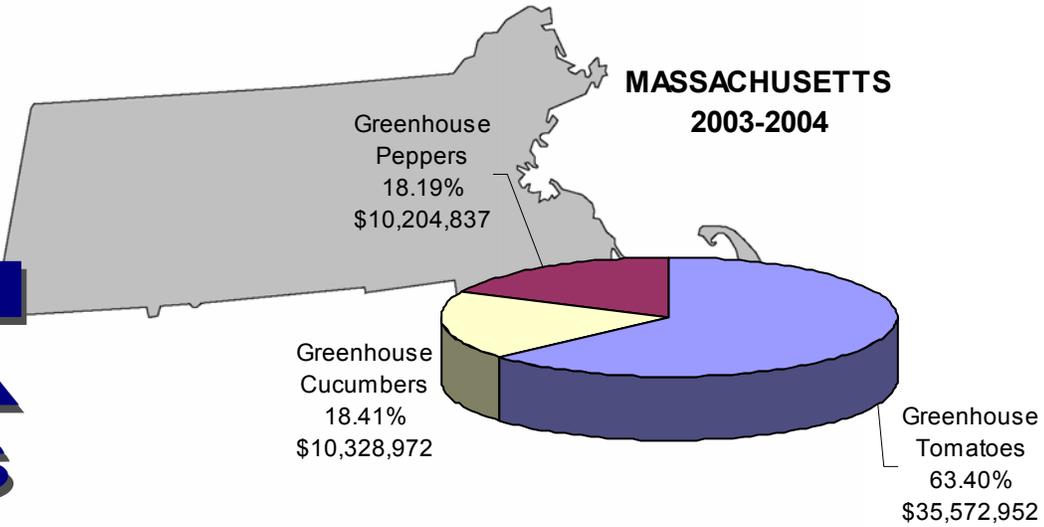


ONTARIO GREENHOUSE VEGETABLE SALES to NEW YORK 2003 & 2004				
New York	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$17,504,829	\$18,091,196	\$35,596,025
Greenhouse Cucumbers	07070010	\$5,288,138	\$3,628,245	\$8,916,383
Greenhouse Peppers	07096010	\$7,677,089	\$7,093,124	\$14,770,213
		\$30,470,056	\$28,812,565	\$59,282,621

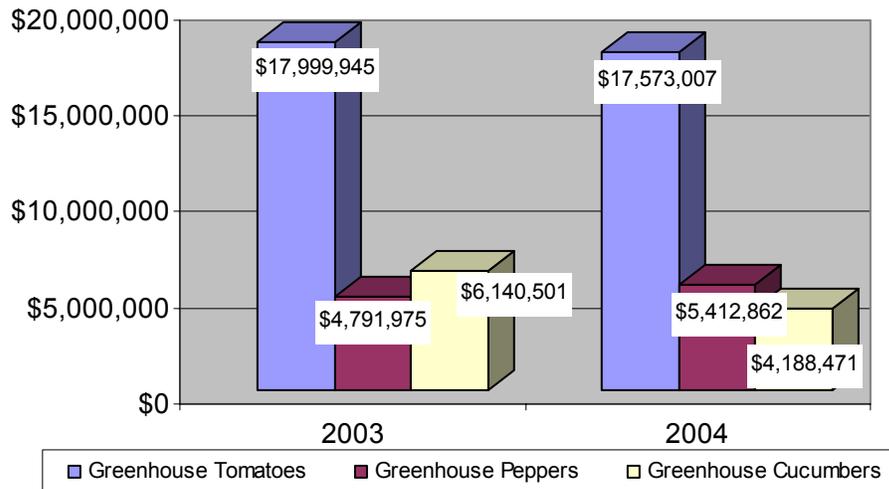


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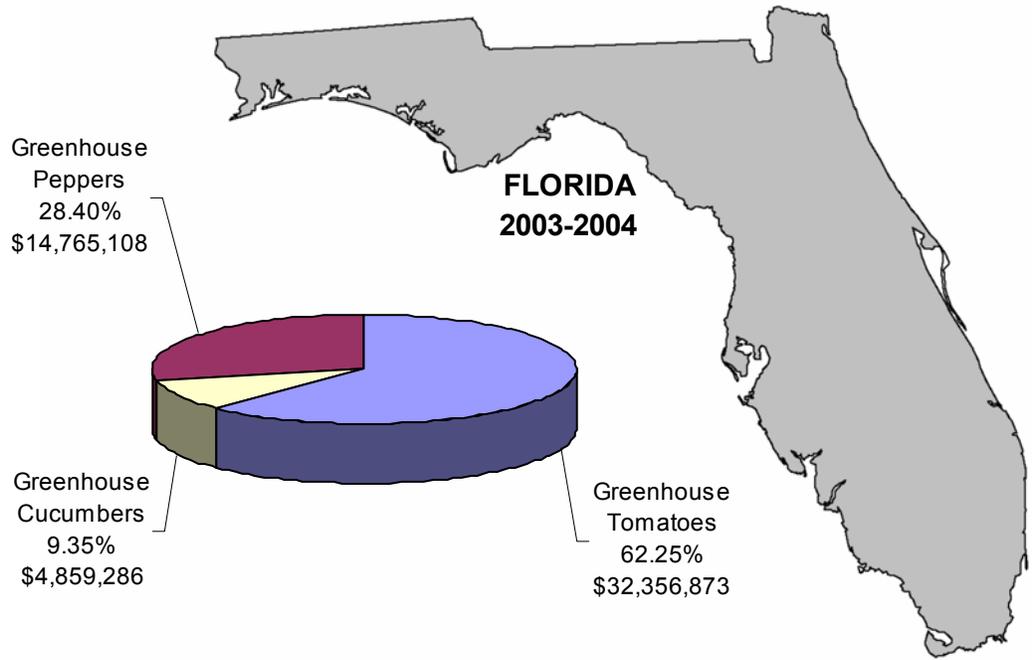


ONTARIO GREENHOUSE VEGETABLE SALES to MASSACHUSETTS 2003 & 2004				
Massachusetts	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$17,999,945	\$17,573,007	\$35,572,952
Greenhouse Cucumbers	07070010	\$6,140,501	\$4,188,471	\$10,328,972
Greenhouse Peppers	07096010	\$4,791,975	\$5,412,862	\$10,204,837
		\$28,932,421	\$27,174,340	\$56,106,761

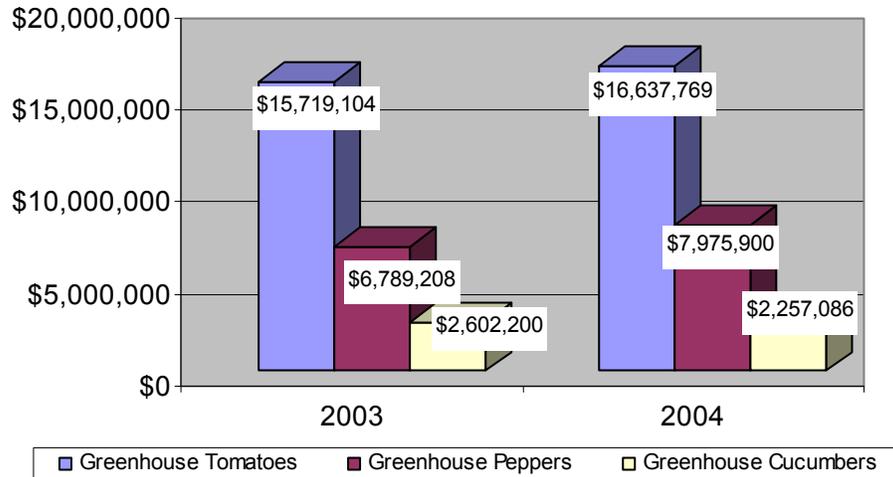


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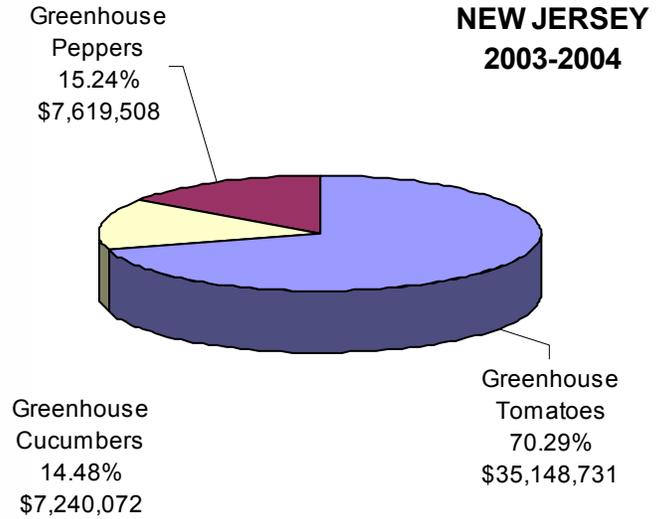
ONTARIO GREENHOUSE VEGETABLE SALES to FLORIDA 2003 & 2004				
Florida	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$15,719,104	\$16,637,769	\$32,356,873
Greenhouse Cucumbers	07070010	\$2,602,200	\$2,257,086	\$4,859,286
Greenhouse Peppers	07096010	\$6,789,208	\$7,975,900	\$14,765,108
		\$25,110,512	\$26,870,755	\$51,981,267



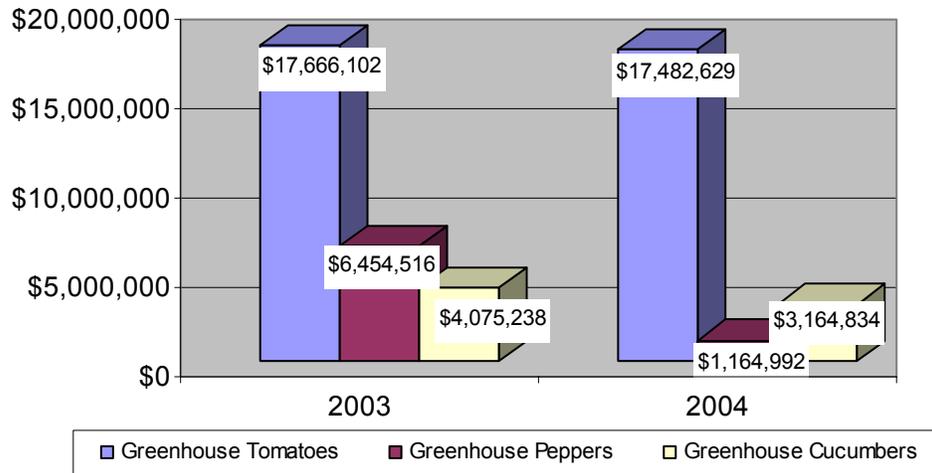
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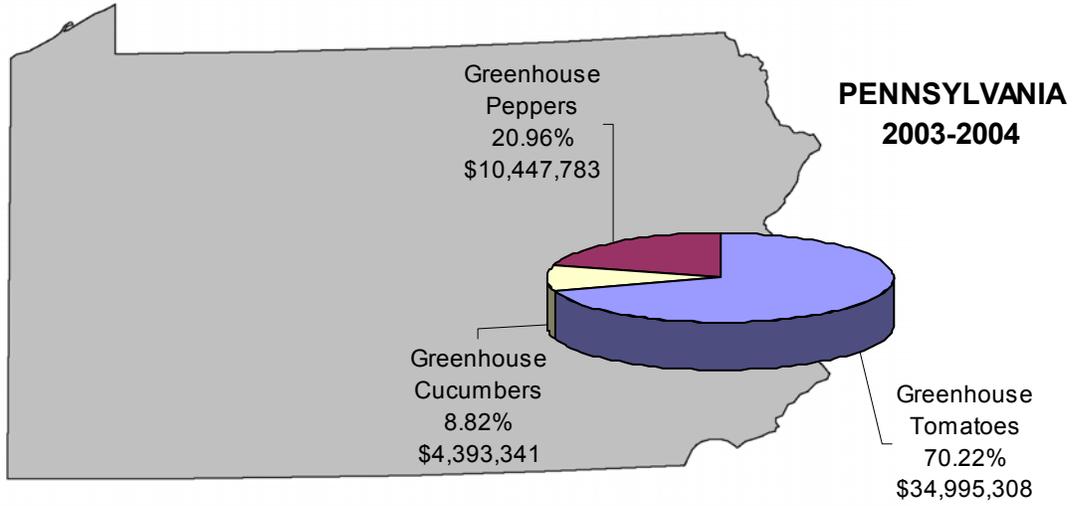


ONTARIO GREENHOUSE VEGETABLE SALES to NEW JERSEY 2003 & 2004				
New Jersey	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$17,666,102	\$17,482,629	\$35,148,731
Greenhouse Cucumbers	07070010	\$4,075,238	\$3,164,834	\$7,240,072
Greenhouse Peppers	07096010	\$6,454,516	\$1,164,992	\$7,619,508
		\$28,195,856	\$21,812,455	\$50,008,311

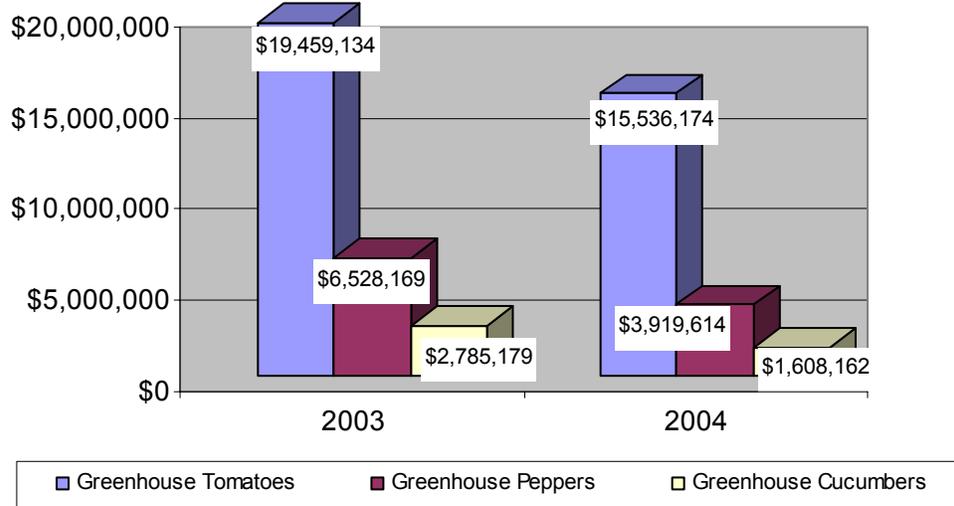


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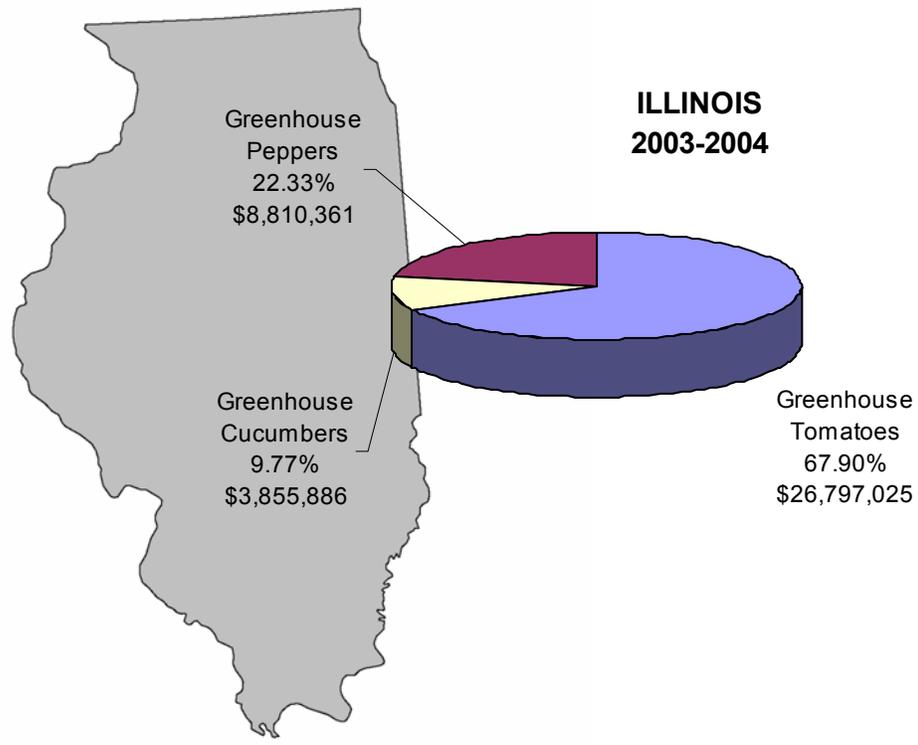
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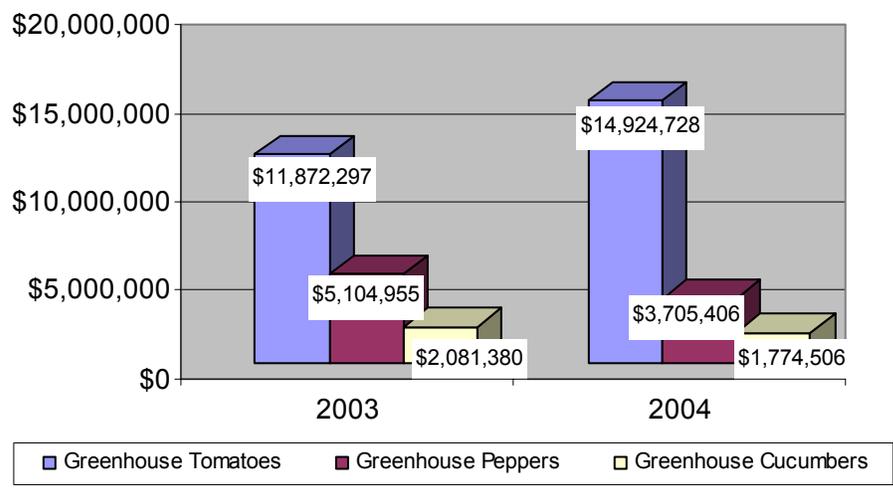
ONTARIO GREENHOUSE VEGETABLE SALES to PENNSYLVANIA 2003 & 2004				
Pennsylvania	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$19,459,134	\$15,536,174	\$34,995,308
Greenhouse Cucumbers	07070010	\$2,785,179	\$1,608,162	\$4,393,341
Greenhouse Peppers	07096010	\$6,528,169	\$3,919,614	\$10,447,783
		\$28,772,482	\$21,063,950	\$49,836,432



ILLINOIS

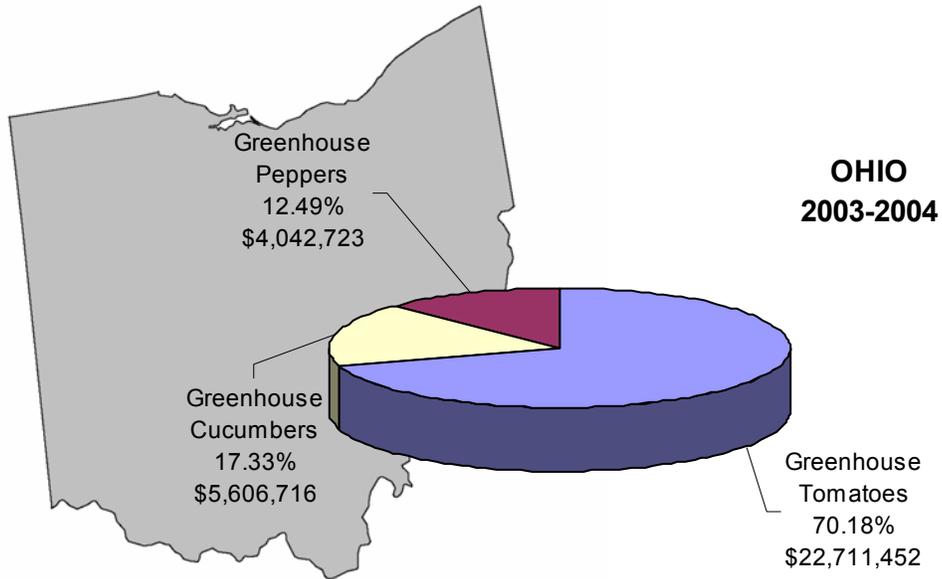


ONTARIO GREENHOUSE VEGETABLE SALES to ILLINOIS 2003 & 2004				
Illinois	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$11,872,297	\$14,924,728	\$26,797,025
Greenhouse Cucumbers	07070010	\$2,081,380	\$1,774,506	\$3,855,886
Greenhouse Peppers	07096010	\$5,104,955	\$3,705,406	\$8,810,361
		\$19,058,632	\$20,404,640	\$39,463,272

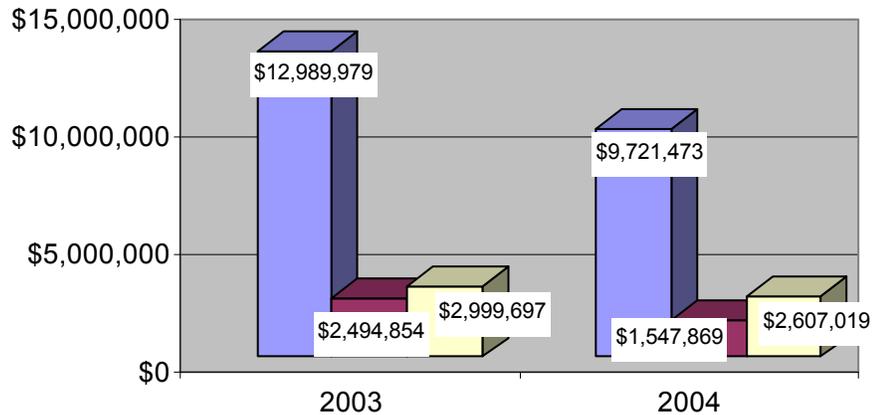


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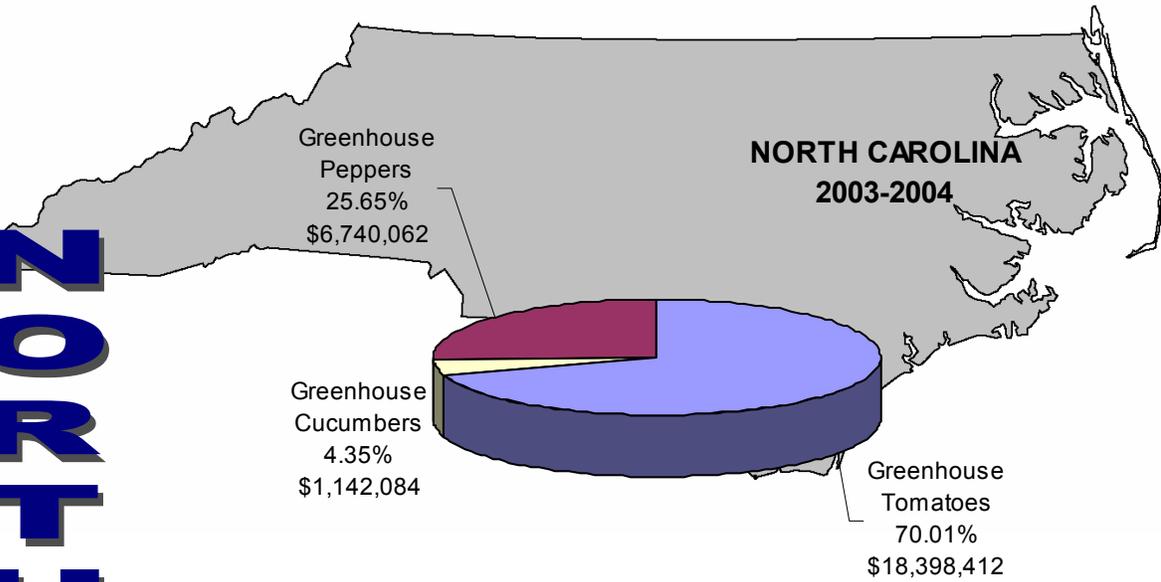
ONTARIO GREENHOUSE VEGETABLE SALES to OHIO 2003 & 2004				
Ohio	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$12,989,979	\$9,721,473	\$22,711,452
Greenhouse Cucumbers	07070010	\$2,999,697	\$2,607,019	\$5,606,716
Greenhouse Peppers	07096010	\$2,494,854	\$1,547,869	\$4,042,723
		\$18,484,530	\$13,876,361	\$32,360,891



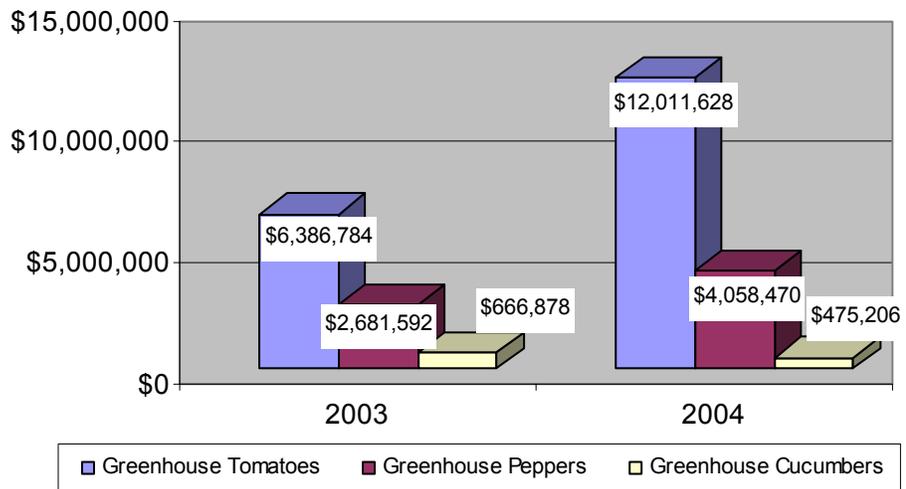
■ Greenhouse Tomatoes ■ Greenhouse Peppers ■ Greenhouse Cucumbers

SECTION THREE

**ONTARIO
GREENHOUSE
VEGETABLES
MARKETS**

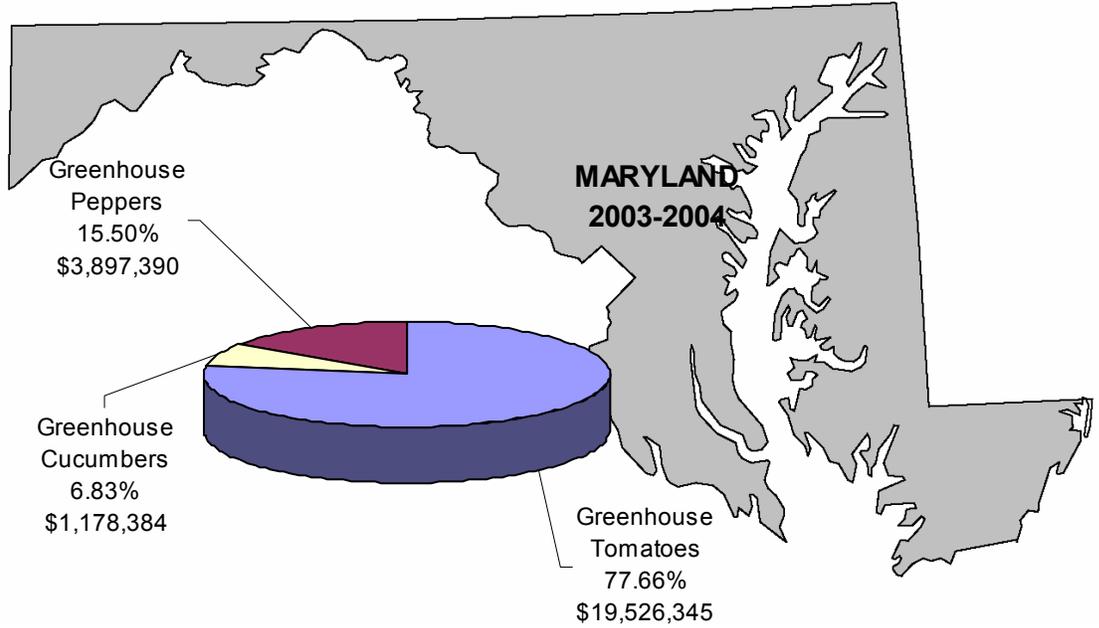


ONTARIO GREENHOUSE VEGETABLE SALES to NORTH CAROLINA 2003 & 2004				
North Carolina	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$6,386,784	\$12,011,628	\$18,398,412
Greenhouse Cucumbers	07070010	\$666,878	\$475,206	\$1,142,084
Greenhouse Peppers	07096010	\$2,681,592	\$4,058,470	\$6,740,062
		\$9,735,254	\$16,545,304	\$26,280,558

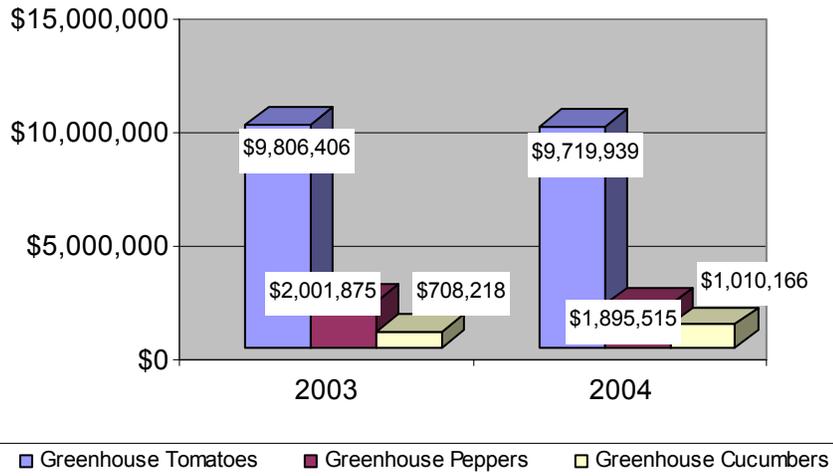


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ONTARIO GREENHOUSE VEGETABLE SALES to MARYLAND 2003 & 2004				
Maryland	Harmonized Code	2003	2004	TOTAL
Greenhouse Tomatoes	07020010	\$9,806,406	\$9,719,939	\$19,526,345
Greenhouse Cucumbers	07070010	\$708,218	\$1,010,166	\$1,718,384
Greenhouse Peppers	07096010	\$2,001,875	\$1,895,515	\$3,897,390
		\$12,516,499	\$12,625,620	\$25,142,119



Summary

Ontario growers have established a market presence and have gained a growing market share for their greenhouse vegetable tomatoes, cucumbers and peppers in various regions of the U.S. Established patterns of trade and commerce and proximity to Ontario growers have created vibrant markets for growers of Ontario greenhouse vegetable produce. Sales trends document accelerating growth and widespread acceptance of quality, Ontario-grown greenhouse vegetable produce. However, a detailed examination of greenhouse vegetable sales into the U.S. markets outlined in this report suggests that there are still untapped opportunities for market development in states along established north-south trade and transportation corridors as well as expansion possibilities in the Great Lakes regional markets.

Consumer tastes for greenhouse products are changing, yet overall consumption patterns in North America still fall well short of the level of greenhouse vegetable consumption by European consumers. The export market for quality, year-round greenhouse produce is potentially very large and the competition is already staking their claim in this market.

Developing new markets for Ontario growers will be a challenge as new production facilities and investments are being made by the domestic greenhouse vegetable industry in the U.S. and the emergence of a distinctive, export-oriented, greenhouse growing infrastructure in Mexico. This competitive situation is attenuated by the substantially increased energy and operational costs of greenhouse production in the province, the rising value of the Canadian dollar, and changing commercial regulatory environments on all goods destined for U.S. markets.

Ontario has developed an important market niche for greenhouse products in the United States based on quality commodities that are grown by leaders in the greenhouse vegetable sector of our provincial agricultural economy. They represent an important component of the national agricultural economy and an opportunity that must not be diminished or taken for granted.