Possibility grows here.

Plant the Seeds: Opportunities to Grow Southern Ontario's Fruit and Vegetable Sector

Plant the Seeds: Opportunities to Grow Southern Ontario's Fruit and Vegetable Sector identifies the economic opportunity to expand fruit and vegetable production, and outlines what can and needs to be done to make that possible. Expanding Ontario-grown fruits and vegetables results in benefits for the province:

- More locally-grown fruits and vegetables available
- Higher levels of farm incomes and economic activity
- More jobs created
- A reduction in the fruits and vegetable products trade deficit,
- Lower carbon emissions from long distance transportation of imports

There is $2.2 billion of fruits and vegetables grown in Ontario on 200,000 acres, 43 per cent is field grown and 57 per cent is produced in greenhouse operations. This report considers the opportunities for, and constraints to, expanding production for 9 crops—fresh grapes, pears, strawberries, apples, garlic, eggplant, sweet potatoes, snap beans, and cabbage (regular and Chinese)—as well as vertical farming.

The expansion of all crops combined could result in up to $135 million in farm-gate revenue.

Below is a summary of the expansion opportunities per crop:

Crop	Current Production as a Share of Ontario Consumption	Expansion Opportunity (multiples increase)	Expanded Production as a Share of Ontario Consumption[1]	Expanded Farm-Gate Revenue Potential (incremental millions)
Strawberries[2]	14%–16%	2.5 X	37.5%	$45.5
Apples (fresh)	62%–87%	1.11 X	83%	$20.0
Fresh grapes	0.9%–1.6%	8 X	8.3%	$26.4
Garlic	6%–11%	2 X	20%	$10.0-$15.0
Pears	12%	2 X	25%	$10.8
Cabbage (regular)	65%–92%	1.15 X	90%	$6.8
Cabbage (Chinese)	40%–60%	1.36 X	68%	$5.8
Sweet Potatoes	51%	1.5 X	79%	$2.0
Snap Beans (fresh)	45%	1.09 X	49%	$1.8
Eggplant	16%	1.25 X	18.8%	$0.7

1 Note: The higher production, as a percent of consumption, for some crops is based on the mid-point of the current production to consumption ratio (as shown in the first row).

2 This expansion opportunity focused on field-grown strawberries, using mostly the day-neutral type of strawberry. Greenhouse-grown strawberries in the province can supply a portion of the market through October to mid-June. This indoor production complements field-grown strawberries. Year-round greenhouse strawberry production allows for an expansion that exceeds the 37.5 per cent of consumption to well over 50 per cent of all consumption.

While each crop requires specific considerations regarding expanding production, it is important for all nine crops that:

- The expanded production is part of an existing supply chain with a critical mass of supply;
- Retailers support Ontario-grown product as part of their marketplace positioning;
- Foodland Ontario supports retailers to market the product, ensuring it is well signed and displayed at the point of consumer purchase, whether in stores or food service operations;
- Ontario growers have better access to crop protection materials used by US growers in order to compete with them; and
- Cultivar selection programs and/or plant breeding programs are designed for Ontario growing conditions and to deliver on specific product attributes that are desired by consumers and retailers.

For vertical farms, the first three factors above apply. Any investment into vertical farming should only occur after a market need has been identified with a commitment by a customer to merchandize the produce given the very high initial capital costs.

Specific considerations for each crop include:

Strawberries

- Growers and marketers have a critical mass of day-neutral strawberries that compete with California strawberries to supply major retailers from July to October.
- Field strawberry growers and greenhouse strawberry growers collaborate to offer a critical mass of strawberries year-round.
- Retailers feature Ontario strawberries in-store beyond the traditional June strawberry period.
- Research and development institutions restore a strawberry breeding program focused on developing day-neutral cultivars more suitable to Ontario growing conditions.

Apples

- Research and development into technologies that enable a longer storage season for domestic apples, easing the reliance on the large volume of imported apples for some varieties. Field strawberry growers and greenhouse strawberry growers collaborate to offer a critical mass of strawberries year-round.
- Investment in additional storage capacity to increase apple volumes stored in the post-harvest season.
- Continued investment by growers in high-density orchards, which would produce larger yields and result in a higher profit margin for growers over traditional tree density.

Fresh Grapes

- Grape production expansion occurs outside of the Niagara region and along the north shore of Lake Erie in the Essex County area.
- Plant breeding programs and/or cultivar selection deliver a longer harvest period and larger seedless berries with crisper skin that are red or green in colour.

Garlic

- Seed supply (cloves from a garlic bulb) shortages are addressed by some growers focusing on providing high-quality disease-free seed to commercial growers.
- The industry develops a critical mass of supply to expand sales into major food retail channels, and investments in controlled atmospheric storage are needed to extend the marketing season.
- Differentiating Ontario-grown garlic from competing supply sources through promotion and marketing campaigns increases consumer awareness of the values of Ontario garlic.

Pears

- Expansion can occur in a number of areas outside the traditional pear growing region of Niagara, including along the north shore of Lake Erie and areas where apples are traditionally grown like Norfolk.
- Growers expanding pear production invest in high-density planted orchards for better profit margins.
- Growers and marketers invest in controlled atmospheric storage to have an extended marketing season.
- Attention to cultivar selection and handling practices will improve the presentation and appearance of pears on the retail shelf, compared to imported pears.

Cabbage (regular and chinese)

- Increase growers' economies of scale by developing relationships with retail buyers, likely requiring government financial support programs to provide for competitive production with Quebec.
- Growers must make investments in controlled atmospheric storage to provide a year-round supply of cabbage.
- Ontario sweet potatoes compete with lower cost suppliers operating out of North Carolina, due to cultivar selection and/or a plant breeding program focused on higher yields and/or a shorter growing season. Therefore, growers must be able to profitably grow, store, and ship sweet potatoes into distribution centres at prices near US import values.
- Investigate cultivar options and/or growing conditions that offer a taste of Ontario sweet potatoes more comparable to imported product.
- Additional production is part of an existing supply chain serving retail channels, where Ontario buyers are willing and committed to merchandizing more Ontario production.

Sweet Potatoes

- Ontario sweet potatoes compete with lower cost suppliers operating out of North Carolina, due to cultivar selection and/or a plant breeding program focused on higher yields and/or a shorter growing season. Therefore, growers must be able to profitably grow, store, and ship sweet potatoes into distribution centres at prices near US import values.
- Investigate cultivar options and/or growing conditions that offer a taste of Ontario sweet potatoes more comparable to imported product.
- Additional production is part of an existing supply chain serving retail channels, where Ontario buyers are willing and committed to merchandizing more Ontario production.

Snap Beans

- Expansion can occur in a number of areas outside the traditional pear growing region of Niagara, including along the north shore of Lake Erie and areas where apples are traditionally grown like Norfolk.
- Growers expanding pear production invest in high-density planted orchards for better profit margins.
- Growers and marketers invest in controlled atmospheric storage to have an extended marketing season.

Eggplant

- Growers expanding output need to be part of a marketing group that offers necessary critical mass to major retail buyers.

Recommendations for Actors across the Supply Chain:

There is a role for growers, marketers, retailers, industry organizations, research and development institutions, and government in realizing these expansion opportunities.

Food Retail and Food Service

- Retailers and Foodland Ontario should continue to collaborate to enhance the display of Ontario grown produce including using in-store protocols that focus on placement of Ontario produce. Food service operations should also collaborate with Foodland Ontario to develop/enhance use of "Ontario-grown" signage.
- There must be a commitment and demand from retailer and food service buyers to buy Ontario-grown food, given the nature and structure of produce markets.

Growers

- A marketing approach with a critical mass to supply individual retail accounts is required. Smaller growers must aggregate with others to reach the necessary critical mass.
- Expansion should occur through supply chains where the seller—a grower or wholesaler—has a relationship with major buyers.
- Individual growers should consider if they have a market for their additional production to ensure the added volume will not disrupt the balance of supply and demand, and result in lower crop prices.
- Business relationships in the supply chain must be based on loyalty and an expectation that commitments will be followed through on by both parties.

Grower Associations

- Grower organizations should continue to develop young grower programs so the industry can nurture the talent pool for continued field-grown fruit and vegetable production in Ontario.
- The Ontario government and/or selected grower organizations could provide information to multi-jurisdictional grower/marketer organizations on the benefits of expanding their continental supply with Ontario-based growing operations.
- Grower groups and municipalities could link growers looking to leave the business with farmland investors interested in expanding fruit and vegetable production in Ontario.

Research and Development Organizations

- Research and development should include a focus on cultivar selection and plant breeding programs that deliver product attributes that buyers and consumers want, as well as storage technologies to lengthen the marketing season for a number of Ontario-grown fruits and vegetables.

Governments

- The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) should continue to support of the Minor Use Pesticides Program (MUPP), including with a Provincial Minor Use Coordinator position.
- The Government of Canada should ensure sufficient resources are available within the Pest Management Regulatory Agency (PMRA), Agriculture and Agri-Food Canada (AAFC), and other relevant departments to ensure the MUPP has a high level of capacity.
- Government of Canada support is also needed for robust science-based regulatory decisions on crop-protection products, with a priority on access to crop protection materials used on individual crops in the US that are not available in Canada.
- OMAFRA could investigate the use of incentives or regulations to increase the amount of Ontario produce sold in retail and foodservice outlets. This could include an examination of whether the economic impact of additional Ontario-grown produce and the associated provincial tax revenues would justify tax allowances for Ontario-based food retail and foodservice operations.
- OMAFRA could develop cost of production estimates and/or crop budgets for a broader set of field-grown fruit and vegetable crops.
- Encourage OMAFRA to collaborate with Infohort— a dynamic information collection and dissemination system designed to provide current and historical data on horticultural commodities across Canada—to provide price information on an expanded list of fruit and vegetable crops grown in Ontario.

Landowners

- Working with grower organizations, farmland investment companies could identify the benefits of long-term leases as a way for individual growers to consider expanding their operation with lower capital cost.
- The Government of Canada should consider providing 20 to 30-year leases on the proposed Pickering Airport lands. Select commodity organizations could identify the benefits of fruit and vegetable production on suitable acreage on these lands with established growers.
- Selected municipalities could support expansion opportunities by identifying idle land and developing action plans that link current owners and farmland investors.

Read the full report by JRG Consulting Group: **www.greenbelt.ca/planting_seeds**