The Ag Activation Project: Growing a Resilient and Secure Food Supply for Canadians

We will meet Partners at the intersection of inspirational ideas and applied action

2020.04.23

Economic Recovery Hackathon, Smith School of Business at Queen’s University

AG

Activation

Canada 2020

Acknowledgements

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- The Ag Activation team included:
  - Samuel Lee, Regulatory Trade Reporting IT Analyst, HSBC Global Banking and Markets
  - Sameer Luyombo, Smith's Master of Finance Student, Queen's University
  - Vi Nguyen, Director of Strategy and Operations, NordAi Analytics
  - Remi Ojo Jr., Project Manager, Strategic Initiatives – Program Management, Bell
  - Bruce Dudley, Senior Vice President, The Delphi Group and GLOBE Series

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Canada 2020

- The GLOBAL Pandemic has introduced serious potential disruptions to Canada's food supply
  - Loss of previous sources of food imports
  - Domestic fragility from manufacturing closures
  - Fragility in transportation capacity across the supply chain
  - Consumer hoarding behaviours
  - Increased costs of food based on supply constraints
  - Loss of available income to purchase food

The Problem

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Canada 2020

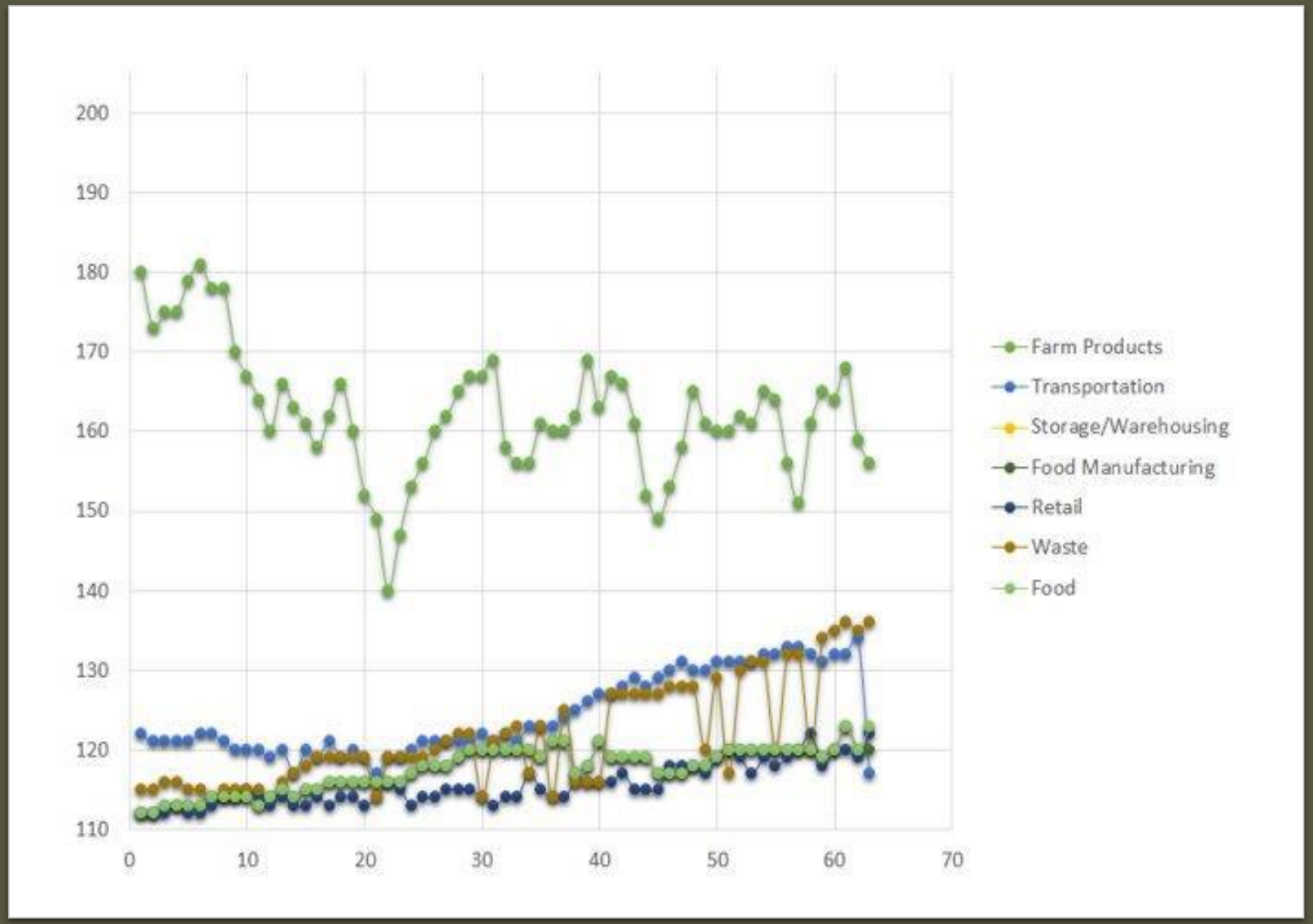
“Reduce the financial stress on Canadian Households by increasing access to cheaper, locally grown produce while creating jobs and resiliency in communities across Canada”

Our Challenge

AG Activation Canada 2020

- To increase community based agriculture (urban and indoor) at scale across the country by:
  - Franchising community gardens and expanding acreage through financial incentives
  - Maximizing conversion of community lands to Agricultural Production
  - Repurposing vacant buildings to grow winter produce
  - Training a next generation of agricultural workers to focus on Ag and Agri-Food production

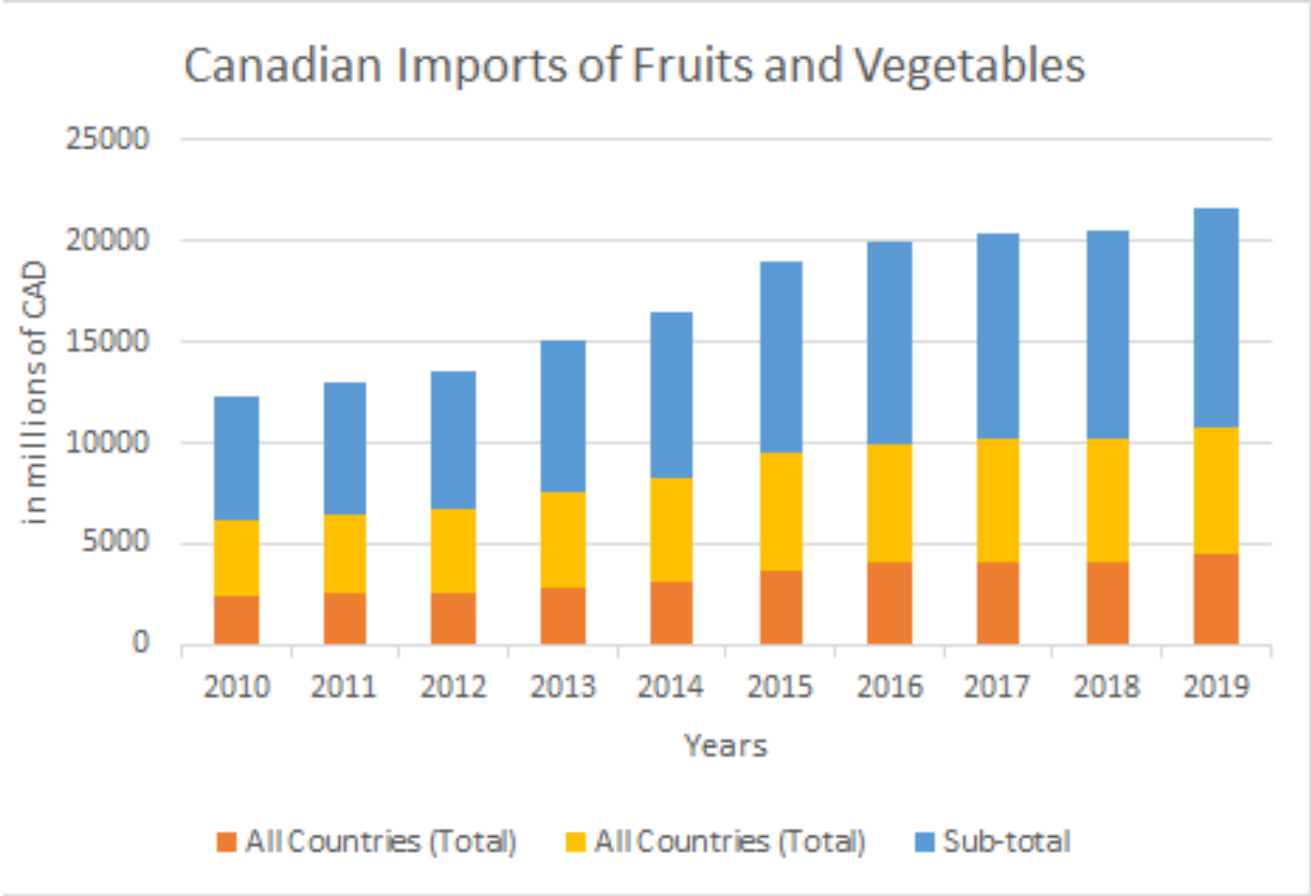
Our Approach



5 year of Producer Indices

A Vulnerability we can address

- Canada has steadily increased the amount of fruits and vegetables that we import
- Urban agriculture offers an opportunity to minimize the risk resulting from disruptions in the international food supply chain
- Source: Trade Data Online (accessed: April 23, 2020)



Solution: Urban Agriculture

- 122,628 acres of land
- Community farms
- Crop yield of 49,000 lbs/acre
- 140 acres = 1 jobs

What are the social benefits of urban agriculture?

Quantitative studies:

- Food security and nutrition outcomes
    - Fruits & vegetable intake
    - Nutritional status of children
    - Food diversity
- Social capital
    - Social cohesion and Trust Scale: Statistically demonstrates that gardeners have greater social cohesion than non-gardeners
- Health and/or wellbeing
    - Physical health related outcomes: BMI (body mass index) and obesity risk, improved muscle mass
- Income and cost savings on food
    - Provides income to those engaged in urban agriculture
    - Allows practitioners to save money on food expenses

*Results should be interpreted with caution. Most studies were lower on the hierarchy of evidence in terms of study design (randomized controlled trials being at the top, case studies being at bottom).

- Reference: Audate *et al*. Scoping review of impacts of urban agriculture on the determinants of health.
- BMC Public Health 2019;19;672. doi.org/10.1186/s12889-019-6885-z
- Available: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6545001/pdf/12889_2019_Article_6885.pdf

Citation

1. Duong, Lynn. *Greater Toronto/Hamilton Area (GTHA) Government Public Land Inventory Web Map*. RyersonUniversity, 7 Mar. 2017, www.ryerson.ca/cur/Research/governmentpubliclandswebmapTEMP/.

2. Statistical Summary of Ontario Agriculture

Item	2001	2006	2011	2016
Total area of Farms	5,466,233	5,386,453	5,126,653	4,997,245
Total cropland	3,656,705	3,660,941	3,613,821	3,650,789
Summer fallow	14,235	11,895	9,490	6,428
Pasture	844,977	753,681	661,081	525,174
Christmas tree area, woodland and wetland		750,355	652,533	624,283
All other land	950,316	209,581	189,728	190,570
Total area owned (historical basis)	3,793,190	3,597,531	3,622,767	3,539,602
Total area rented or crop shared (historical basis)	1,673,043	1,788,922	1,643,398	1,583,829

3. Employment by Industry

	working in the area (daytime)		residing in the area (night-time)	
Employment by Industry, 2016 Census of Population	GTA	Ontario	GTA	Ontario
11 - Agriculture, forestry, fishing and hunting	9290	88450	10135	96610

4. Average Crop Yield of Carrots in Ontario farms

Year	Harvested Area (acres)	Marketed Production ('000 lbs)	Average Price (cents/lb)	Average Yield (lbs/acre)
2019	8,417	412,143	12.22	48,966

Thank you

Breakout Room 4

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