

# RESULTS AND IMPACT

## of the Perennial Crop Development Program (2018-2019)



Through the Canadian Agricultural Partnership, the Department of Agriculture and Land is supporting the sector in improving environmental sustainability and crop diversification. The Perennial Crop Development Program supports climate change mitigation and adaptation through the planting of environmentally sustainable crops. Perennial crops have the potential to work towards both agricultural and conservation objectives.<sup>1</sup>

Perennial crops have benefits for the environment, human health, and the economy. **In some cases, perennial crops may provide economic benefits over conventional crops, since perennial crops tend to have fewer fuel, fertilizer, and labor costs.**<sup>2</sup>



Perennial crops can reduce carbon dioxide and other greenhouse gas emissions from agricultural sources (through different production practices and from the characteristics of the plants).<sup>2</sup> They can also reduce fuel dependency and better protect soil quality compared to conventional production of annual crops.<sup>3</sup>

As a result of a reduction of chemical input requirements, perennial crops may better protect human health than conventional crops.<sup>3</sup>

Perennial crops have been shown to produce more ground cover and have more extensive root systems; this makes perennial crops effective at preventing weeds and capturing nutrients. Therefore, perennial crops can be used in reducing soil erosion and carbon sequestration.<sup>4</sup>

Photo credit: Melissa Morrow

**OVER  
\$150,000**

invested in  
**14 projects**

that promoted environmental sustainability and crop diversification in PEI.



### INDUSTRY INVOLVEMENT

Some local producers that were involved with the program include:

- The Grove Orchard and U-Pick
- Lorne Valley Ranch
- Cedar Grove Farm
- Red Point Orchard
- Oak Isle Farm
- Riverdale Orchard Ltd.
- Cassidy Farms
- The Blueberry Orchard
- Dhaansdale Farm
- Topsy Farms
- Zxiyuan International Co

### SOME OF THE PROJECTS THAT PROMOTED ENVIRONMENTAL SUSTAINABILITY AND CROP DIVERSIFICATION IN PEI:

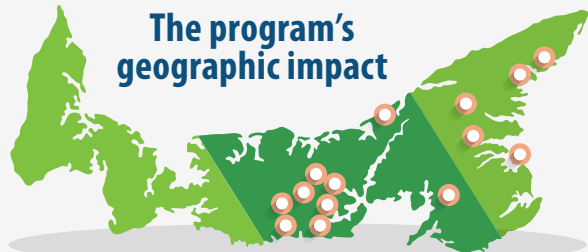
**Establishment of a new cider apple orchard** (Topsy Farms)

**Establishment of a new haskap crop** (Dhaansdale Farm)

**Establishment of a new high-density honeycrisp apple orchard** (Red Point Orchard)



### The program's geographic impact



**PROGRAM IMPACTS.**  
14 projects completed in 2018-2019  
7 perennial crop types supported  
40+ new acres hosting perennial crops  
151,000+ perennial plants planted

### PERENNIAL CROP TYPES SUPPORTED.

- Apples (honeycrisp and cider)
- Asparagus
- Haskaps
- Grapes
- Strawberries
- Highbush Blueberries
- Cranberries

#### ENDNOTES

1 Atwell, R. C., Schulte, L. A., & Westphal, L. M. (2010). How to build multifunctional agricultural landscapes in the U.S. Corn Belt: Add perennials and partnerships. *Land Use Policy*, 27, 1082-1090.

2 Pimentel, D., Cerasale, D., Stanley, R., Perlman, R., Newman, E., Brent, L., Mullan, A. & Chang, D. (2012). Annual vs. perennial grain production. *Agriculture, Ecosystems and Environment*, 161 (15), p. 4.

3 Kane, D., Rogé, P. & Snapp, S. (2016). A systematic review of perennial staple crops literature using topic modeling and bibliometric analysis. *PLoS One*, 11 (5), 1-18.

4 Zhang, Y., Li, Y., Jiang, L., Tian, C., Li, J., & Xiao, Z. (2011). Potential of perennial crop on environmental sustainability of agriculture. *Procedia Environmental Sciences*, 10, 1141-1147.



### Canadian Agricultural Partnership Results:

- 14 program participants entered new markets or diversified markets