



Vineland's e-Newsletter – Fall 2018

Canadian farmers, entrepreneurs and health care workers to benefit from new investment in research

The Honourable Kirsty Duncan, Minister of Science and Sport, announced \$6.7 million in federal funding for seven new projects under [Genome Canada's Genomic Applications Partnership Program](#) (GAPP) that will match researchers with companies to develop new gene-based technologies in health care, agriculture and environmental protection. An additional \$14.3 million is being invested by provincial governments, businesses and other funding partners for a total of \$21 million. [Read more](#)



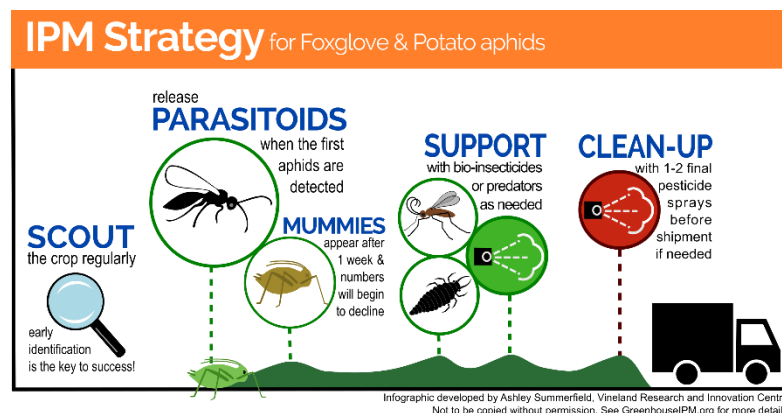
The Honourable Kirsty Duncan, Minister of Science and Sport at the GAPP announcement (Vineland Research and Innovation Centre, August 16, 2018)

The gloves are off for foxglove aphids

Having trouble controlling foxglove aphids in your greenhouse? You're not alone.

Foxglove aphids are problematic for greenhouse growers and many believe that commercially available natural enemies offer low efficacy, leaving them with no other choice but to use pesticides. In an effort to mitigate this problem, Vineland Research and Innovation Centre (Vineland) completed a three-year project to provide growers with an integrated pest management (IPM) strategy against these aphids in greenhouse ornamentals.

Based on research at Vineland and commercial greenhouse trials in Ontario and Québec, Rose Buitenhuis, PhD, Vineland Research Scientist, Biological Control and her team developed an effective IPM strategy depicted in a user-friendly infographic.



Infographic on IPM strategy against foxglove aphids

Scouting the crop early and regularly against aphids dramatically improves the efficacy of the IPM program. Growers should walk through plants, inspecting all sides of leaves. Once detected, the **parasitoid** *Aphidius ervi* should be released for several weeks.

If aphid numbers increase, biopesticides or predators can be used as **supporting strategies** to minimize populations. "In addition to aphid predators that are already commercially available, we found three new suitable biocontrol agents: biopesticide Met52, a pea protein and a novel predatory mite," said Buitenhuis. "These agents provided good control levels against foxglove aphids and were compatible with *A. ervi*."

Clean-up of crops is the final step and pesticide sprays can be used before shipment if there are remaining aphids. Beleaf and Endeavour are good final clean-up spray options. Note that the pesticide Enstar is not compatible with *A. ervi*.

Cultural management practices can also help decrease aphid populations. The use of screens over vents and the removal of infested weeds from inside and outside the greenhouse prevent entry of aphids. Reduction of nitrogen fertilizer rates may also help decrease aphid population growth and damage to the crop.

“Our results helped us formulate practical recommendations for a successful foxglove aphid IPM strategy,” said Buitenhuis. Results from various trials also validated these recommendations amounting to a 50 per cent reduction in pesticide use against foxglove aphid.

“Our IPM strategy will help growers respond to emerging pest issues while maintaining high production value and ensuring the Canadian floriculture sector remains competitive,” said Buitenhuis.

In the final phase of this project, Vineland is doing extensive outreach to growers and biocontrol companies through industry presentations/posters/fact sheets, greenhouse trials, publication of scientific articles and updates to industry resource www.greenhouseipm.org.

This project was supported by the Canadian Ornamental Horticulture Alliance (COHA) research and innovation cluster and funded in part through the AgriInnovation Program under *Growing Forward 2 (GF2)*, a federal-provincial-territorial initiative. The Agricultural Adaptation Council assists COHA in the delivery of this research and innovation cluster.

This research was led by Michelangelo La Spina, PhD, Research Associate at Vineland, in partnership with Sarah Jandricic, Greenhouse Floriculture IPM Specialist, Ontario Ministry of Agriculture Food and Rural Affairs, the Quebec Institute for the Development of Ornamental Horticulture (IQDHO), Vanleeuwen Flower Farms Ltd. in Ontario and Les Serres Arundel in Québec.

For more information, please contact:
Rose Buitenhuis, PhD
Research Scientist, Biological Control
905-562-0320 x749
rose.buitenhuis@vinelandresearch.com

Time to change the conversation around turfgrass



Vineland’s three-year research program on improving turfgrass in residential areas has just wrapped up. A summary of key findings on optimal grass variety selection and best fertilization practices can be reviewed [here](#).

Canadian Shield™ takes centre stage

In an effort to rejuvenate their Rose Garden, the Royal Botanical Gardens (RBG) searched the country for beautiful disease-resistant and cold-hardy roses. On June 23, 2018, they hosted a grand opening of their new and improved rose garden in Hendrie Park featuring Vineland's 49th Parallel Collection Canadian Shield™.

The original Centennial Rose Garden established more than 50 years ago deteriorated because of the cosmetic pesticide ban and a reliance on disease-prone cultivars. In order to revitalize the garden, RBG rebuilt it using rich soil, an advanced irrigation system, companion plants to create a healthy eco-system and most importantly more than 3,000 cold-hardy, disease-resistant roses including Canadian Shield™.

Released in 2017, Canadian Shield™ is a low-maintenance versatile garden and landscape rose with full, red flowers and glossy green foliage. It is also resistant to disease and is winter hardy.

In years to come, RBG is planning to add more roses from Vineland's 49th Parallel Collection to its Rose Garden www.rbg.ca/rosegarden.

For more information on Canadian Shield™ and the collection, please visit 49throses.com



Guest speaker Amy Bowen, Research Director, Vineland's Consumer Insights at RBG Rose Garden grand opening (June 23, 2018)



Canadian Shield™ in RBG Rose Garden

In the News

Vineland works hard to make public the latest in horticulture research via print, broadcast and online media.

Here is a snapshot of some recent stories you might enjoy:

- Orchard & Vine Magazine - [Discovering the tastes of cider](#)
- Good Fruit Grower - [Northern exposure](#)
- AgInnovation Ontario - [Producing local flowers to meet a growing floral flavours food trend](#)



You can visit vinelandresearch.com/news for more stories.

Annual community events at Vineland

What's Growin' On Research Farm Open House 2018

Vineland hosted our annual open house at our research farm July 25. This once-a-year opportunity provides guests with an up-close view of our latest research and commercialization programs.

Stay up-to-date on Vineland's news and events by joining our mailing list at vinelandresearch.com

For more information on events, please contact: Shelby VanderEnde
Coordinator, Communications & Public Relations
905-562-0320 x791 shelby.vanderende@vinelandresearch.com



Thanks to our open house speakers John Bakker from J.C. Bakker Nurseries and Vineland researchers Amy Bowen and Valerio Primomo