



vineland
RESEARCH & INNOVATION CENTRE

Commercialization of Greenhouse Tomato Seeds

Request for Expressions of Interest



May, 2018

**Prepared by Vineland Research and
Innovation Centre**



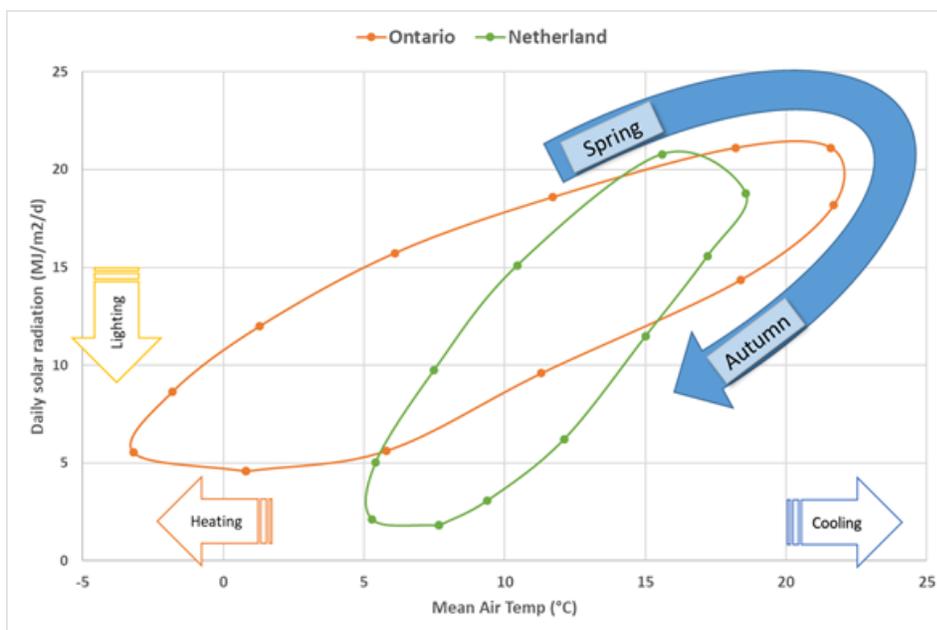
Background

With a highly skilled research team, oversight from an independent Board of Directors, engagement from an international Science Advisory Council and collaboration with more than 160 global partners, Vineland's goal is to enhance Canadian growers' commercial success through results-oriented innovation. We are an independent, not-for-profit organization funded in part by the *Canadian Agricultural Partnership*, a federal-provincial-territorial initiative.

Vineland's vision: A vibrant, prosperous and sustainable horticulture industry working with innovation to fill our world with fruits, vegetables, flowers and plants.

Vineland's mission: Enriching people's lives through science and discovery in horticulture.

Summary of the program



The Vineland tomato breeding program was initiated in 2013 in response to a need identified by the Ontario Greenhouse Vegetable Growers (OGVG) to develop novel, hybrid greenhouse tomato varieties for the Ontario greenhouse industry which are better adapted to our growing conditions and have demonstrably improved flavor, aroma and consumer appeal. As seen in the figure above, plant varieties bred in the Netherlands, the traditional hub of vegetable breeding, are adapted to a considerably different climate than what is characteristic of Ontario and similar regions. Vineland's objective is to breed varieties specifically adapted to our climate that offer optimal performance and fruit quality.

Based on the success of our program thus far, Vineland expects to be in a position to release its first commercial variety, a hybrid tomato-on-the-vine (TOV) with high yields, excellent disease resistance and consumer preferred flavour, aroma and texture, as early as 2021.

The Vineland TOV breeding program takes a multi-disciplinary approach and brings together experts in vegetable breeding, horticultural production, applied genomics, biochemistry and consumer insights. Together this team is building a pipeline for future releases that possess novel traits for disease resistance, improved flavor and more.

Variety selection criteria

Crop Performance	Disease Resistance	Fruit Quality
<ul style="list-style-type: none">• Yield >65kg/m²• Low crop maintenance• Leaves at optimal angle	<ul style="list-style-type: none">• Must have:<ul style="list-style-type: none">• TMV (0,1,2)• Verticillium• Fusarium (1,2)• FORL• Powdery Mildew• Nice to have:<ul style="list-style-type: none">• TSWV• Bacterial Canker• PepMV	<ul style="list-style-type: none">• AWC >750g• AWF >150g• Tight Cluster• Uniform shape and fruit size• Uniform fruit ripening• Good shelf life• Brix >3.7• Flavour exceeds commercial standards

Opportunity

Statistics Canada reports that the total harvested area of greenhouse tomato Canada in 2015 was **14.4 million m²**. That same year, Ontario producers harvested nearly 10 million m², accounting for almost 70% of Canadian production. This substantial square footage translates to a total of 266,845 metric tons of Canadian greenhouse tomato harvested in 2015 with a farm gate value of approximately CAD\$517 million. A significant cluster of vegetable greenhouses is located in the Chatham-Kent and Windsor-Essex regions. Other regions of production in Canada include Quebec and British Columbia. Of the tomatoes cultivated under glass, approximately 40% are tomato-on-the-vine varieties.



Expressions of Interest

Vineland is seeking commercialization partners to bring our greenhouse tomato varieties to market. The focus of these efforts will be in Canada, with opportunities to branch into other parts of North America and Europe to be explored based on the market access of the partner we engage for distribution. At this time this is an open and exploratory process. Through this Request for Expressions of Interest process, Vineland hopes to gain a more thorough understanding of both the organizations that may become our future partners on this project, as well as the multitude of potential commercialization models that exist. Following our review of these Expressions of Interest, Vineland intends to pursue further discussions with selected Respondent(s) and request more comprehensive submissions.

Vineland has identified three distinct areas of need as noted below, and we invite entities to submit responses describing how their organization can serve an identified category, or propose an alternate relationship structure. Vineland's ultimate goal is to act as a plant breeder and IP manager while outsourcing all commercialization activities to experienced and qualified partner(s). However, if your commercialization model requires that Vineland participate in a larger way, this model will also be considered.

Category A – Seed production (GSPP scope 3-10)

- Growing of plants for seed production
- Production of seeds
- Extraction
- Seed processing

Category B – Quality control and seed treatment (GSPP scope 1-2, 8-16)

- Management of parental material
- Testing of starting material
- Seed treatment
- Seed testing

Category C - Distribution

- Branding
- Marketing
- Sales
- Distribution

In keeping with Vineland's mandate to bring benefit to the Canadian horticultural sector, preference will be given to Respondents based in Canada, however Respondents based in other territories will be given serious consideration if they offer the best solution or fill vital roles within the program.



Timeline

The following dates are estimated:

- Launch of REOI process: June 4th, 2018
- Close of REOI process: July 31st, 2018
- Selection of Respondent(s) to engage in second round discussions: September 14th, 2018
- Licenses and other agreement(s) executed: 2019
- First plantings for seed production (estimated): Winter 2020
- First produce on Canadian retail shelves (estimated): Spring 2021

Evaluation criteria

Submissions will be evaluated and Respondents will be selected for further discussions based on the following criteria:

- Ability to manage the activities required for the successful commercialization of the Vineland's tomato varieties, either directly or in partnership with other companies or organizations (the vision of how this will be achieved should be clearly explained in the submission)
- Knowledge and experience producing, marketing and branding vegetable seed and/or other relevant project experience
- Experience with greenhouse vegetables, specifically tomatoes is an asset but not required for Respondents expressing interest in marketing, sales, distribution and quality control activities. Experience with greenhouse vegetable seed is **required** for partners in seed production and quality control. Specific experience with greenhouse tomatoes is an asset.
- Seed production location; if production is to be contracted out, please discuss this arrangement

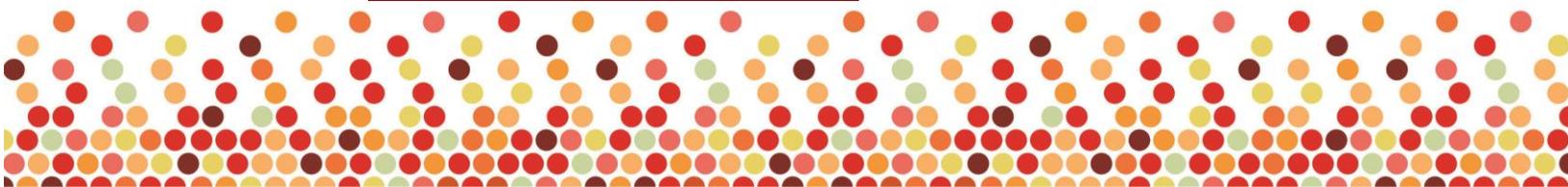
Template and submission information

The attached template should be completed by the Respondent and submitted **electronically** to the email address below **by 4pm EST, on July 31st, 2018**. Respondents are encouraged to submit any materials that they consider to be relevant to the current REOI. Questions and submissions should be directed to:

Amanda Moen
Advisor, Business Development

Phone: 905.562.0320 x668

Email: Amanda.Moen@vinelandresearch.com



Disclaimer

All information provided is accurate at the time the REOI is distributed but may be subject to change. Vineland does not guarantee the outcome of this process. Participation in the REOI does not guarantee that license(s) or contracts will be awarded. All expenses that Respondents incur in responding to the REOI will be borne by Respondents; Vineland will not reimburse any such costs.

Responses will be evaluated based on all relevant factors, as determined by Vineland. Vineland may request, from any responding party, additional information and/or clarification in regard to the submitted submission. Vineland reserves the right to enter into negotiations subsequent to this REOI which may result in changes to any of the terms initially proposed in the REOI, including without limitation, the territory, exclusivity, royalty rates, etc. A license will not necessarily be awarded to the party or parties proposing the most favorable financial terms in response to this REOI. This REOI process does not guarantee the award of any license or contracts by Vineland. Any responses, materials, correspondence, or documents provided to Vineland will be kept confidential.



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