

**BROCK UNIVERSITY  
MEDIA RELEASE**

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**Facing another tough winter, Brock scientists help grape growers prepare for the fight**

Amid new predictions for another deep-freeze winter, scientists at Brock University are taking steps to help Ontario grape growers avoid millions of dollars worth of cold-weather damage.

Brock's Cool Climate Oenology and Viticulture Institute (CCOVI) has reinstated VineAlert, a program that measures the cold hardiness of grapevines and warns growers when to turn on their frost-fighting wind machines. As another tool, CCOVI is also partnering with Ontario Grape and Wine Research Inc. (OGWRI) to produce a best-practices manual to help growers avoid devastating injury to grapevines.

This comes as a new economic impact study says VineAlert helps Ontario's grape industry avoid up to \$13.8 million in lost sales from a single severe cold weather event, as well as \$11.7 million in lost sales while damaged vines recover in subsequent years, and \$29.1 million in vine renewal and replacement costs.

The study by the Goodman School of Business Consulting Group also found that, last winter alone, VineAlert helped growers save as much as \$2.3 million in fuel costs just by knowing when it was not necessary to turn on their wind machines.

Ontario's \$3.3-billion grape and wine sector represents half of the Canadian industry, and CCOVI Director Debbie Inglis says preventing winter injury is a constant concern.

"It only takes one cold event where vines are not protected, and you can have serious crop loss and ongoing costs associated with that loss," she said. "Our cold hardiness program gives growers the knowledge to make informed decisions, which results in savings of time and money."

Niagara-on-the-Lake grape grower Trevor Falk says VineAlert helps local growers by providing distinct information for different micro-climates within a single Ontario region.

"To have research done on representative vineyards is invaluable when making business decisions in the vineyard regarding wind machine use," said Falk.

VineAlert tracks a grape bud's ability to survive severe cold during the dormant season from October to April, signaling at what temperature different varieties would sustain damage.

"The key is to know when to turn on a wind machine, to warm up the local air so the vine never experiences the cold temperatures," said Inglis. "You cannot tell that just by looking at

the vine. We actually go out and sample buds from grapevines, bring them back and use our freezer systems to measure how cold tolerant they are before they die.”

Besides considering the vine variety and vineyard location, VineAlert researchers also factor in the conditions and lateness of the preceding growing season, and how deep into the winter a cold snap is occurring.

“If a vine’s cold hardiness in autumn has been delayed due to a late start in the spring growing season, or a cool growing season like we had this year, then a minus-15 spell in late November has more impact than a minus-15 event two months later.”

Beyond economic savings, there are social and environmental gains from knowing when wind machines are required. Benefits include noise reduction in areas where vineyards border urban developments, and reduced running time for wind machine engines.

CCOVI scientist Jim Willwerth, supported by colleagues Kevin Ker and Inglis, developed the new best-practices manual, which is based on five years of cold-hardiness research.

VineAlert is currently supported through funding from the Grape Growers of Ontario and the Ontario Ministry of Research and Innovation’s (MRI) Ontario Research Fund’s Research Excellence program. Funding from MRI and OGWRI supported the development of the best practices guide and the VineAlert database.

#### **More Info:**

\* **Best Management Practices for Reducing Winter Injury** is available here: [www.brocku.ca/webfm\\_send/33923](http://www.brocku.ca/webfm_send/33923)

\* **VineAlert - An Economic Impact Analysis** is available here: [www.brocku.ca/webfm\\_send/33924](http://www.brocku.ca/webfm_send/33924)

#### **About CCOVI**

The Cool Climate Oenology and Viticulture Institute (CCOVI) at Brock University was developed in partnership with the Grape Growers of Ontario and the Wine Council of Ontario. Established in 1996, CCOVI is an internationally recognized research institute focused on research priorities of the Canadian grape and wine industry, and on the education and outreach service needs of that community.

To learn more about CCOVI, visit: [www.brocku.ca/ccovi](http://www.brocku.ca/ccovi)

#### **About OGWRI**

Ontario Grape and Wine Research Inc. (OGWRI) enhances the profitability and sustainability of the Ontario grape and wine industry through directed and co-ordinated financing of research and development activities. OGWRI is a joint effort between the Grape Growers of Ontario, Wine Council of Ontario and the Winery Grower alliance of Ontario.

Visit OGWRI’s website at: [www.ontariograpeandwinereseach.com](http://www.ontariograpeandwinereseach.com)

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