

January 2013

CCOVInews

A newsletter from
the Cool Climate Oenology
and Viticulture Institute



CCOVI

Brock University

How CCOVI came in from the cold

Hours before severe frigid weather blasted Niagara vineyards in late January, scientists from Brock University emailed more than 450 grape growers, warning them to protect sensitive vines from the deep freeze.

The bulletin, issued under the VineAlert program of Brock's Cool Climate Oenology and Viticulture Institute (CCOVI), advised growers to adjust the settings on wind machines to help prevent damage to cultivars like Pinot noir, Merlot and Sauvignon blanc. It also gave a link to a website where growers could track latest cold hardiness data for specific districts.

The warning system is just one example of the growing role that CCOVI has assumed in recent years to provide Ontario's grape and wine industry with critical, real-time support.

CCOVI Director Debbie Inglis says the institute's "new era of industry outreach" is a result of successful partnerships with governments, with other research bodies and with the grape and wine industry itself.

Inglis says a turning point came in December 2009, when CCOVI worked with the Grape Growers of Ontario (GGO) to secure \$1.9 million — mostly from the federal government's Developing Innovative Agri-Products (DIAP) program. The money let CCOVI hire two new scientists whose work priorities would be set not by the university but by the grape and wine industry.

The new federal AgrInnovation program has been announced for this



CCOVI's Jim Willwerth takes a cold-hardiness sample of local vines

spring and Inglis is hopeful the institute will be able to continue its industry-supporting work with an ever-growing cast of collaborators.

"Scientists have been able to work hand in hand with vineyard and winery personnel to overcome challenges," said Inglis. "We've come a long way, and it is important that all the partners keep advancing down this path."

For instance, within months of the 2009 DIAP announcement, CCOVI opened a dedicated lab where wineries and growers could get juice and wine tested for everything from sugar and acidity levels to alcohol content. Previously the industry had to bear the cost of sending samples to US labs for analysis.

Since then, the emphasis on partnerships and outreach has continued to grow through various events and activities.

Besides VineAlert and the analytical services lab, the list includes CCOVI's Preharvest Monitoring Program; the

Calibrate Series of workshops for vineyards and wineries; and a doubling in size of the annual CCOVI Lecture Series, which is free to the public.

Nationally, CCOVI forged a partnership in April 2010 with the Pacific Agri-Food Research Centre (PARC) in Summerland, BC. The resulting Wine Grape Research Network was created to address national research priorities and to collaborate on grapevine cold hardiness.

Within Ontario, CCOVI's innovative research culture made it the lead among four partners in the Ontario Grapevine and Wine Research Network, along with the University of Guelph, Niagara College and the Vineland Research and Innovation Centre.

"The joining of expertise from research and industry has been a win-win for everyone," said Inglis. "The grape and wine industry is worth approximately a billion dollars a year to Canada's economy, and it is in all of our interests to help make it stronger."

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Wine Tasting Challenge winners announced

Last November, participants gathered at The Burroughes on Queen Street West in Toronto to take the 2012 Wine Tasting Challenge.

The annual competition is co-hosted by the Cool Climate Oenology and Viticulture Institute (CCOVI) and is open to all professional sommeliers, food and wine industry professionals, students and wine enthusiasts.

Professional Round

1st Place: Nelson Abreu
2nd Place tie: Ilya Rubin
2nd Place tie: Lorie O'Sullivan

Amateur Round

1st Place: David Eng
2nd Place: Madeleine Sodtka
3rd Place: Philip Belitsky

CCOVI/VQA Round

1st Place: Kathy Nunes

Spirit Round

1st Place: Paul Mitchell

Research Q&A



Gary Pickering is a Researcher with the Cool Climate Oenology and Viticulture Institute (CCOVI) and a Professor of Biological Sciences at Brock University. He is conducting research into the taste sensitivity difference of foodies, wine experts and consumers.

What did you find?

The results replicated well for American wine experts. People who rated themselves as wine experts were more likely to be super and medium tasters. Those with low expertise were more likely to be non-tasters.

With the foodies versus non-foodies we found that it didn't matter what group you were in, your taste sensitivity was not affected whether or not you were considered a foodie.

What would you like consumers to take from this research?

That consumers may want to re-evaluate the value they place on expert endorsements. Wine experts guide our wine purchase decisions but experience flavour in a different way than many wine consumers.

What is next for you in terms of this research?

We want to continue looking at the foodie results in a second study. This time we will determine the taste sensitivity status of people in Ontario and Alberta and design a new scale that will capture the foodie construct. This will help researchers better characterize the demographic features of foodies by more fully defining the term.

Why did you start this project?

A study I published last year looked at how taste sensitivity affects wine preference, which we used to gauge the similarities in taste perceptions between experts and consumers. What we found was that, in Ontario, wine experts were more likely than consumers to be "super tasters", which means they demonstrated higher taste sensitivity to bitterness and other tastes than wine consumers.

What did this study look at?

This time we wanted to study the wine experts' findings again, as well as see if gastronomes, commonly referred to as foodies, have an advantage in terms of being a super taster. I worked with Arun Jain and Ram Bezawada from the University of Buffalo to recruit 1,011 residents from the northeastern United States to test the hypothesis in a different population.

Pickering, G. J., Jain, A. K., and Bezawada, R. (2013). Super-tasting gastronomes? Taste phenotype characterization of foodies and wine experts. *Food Quality and Preference*, 28, 85-91.

Brock graduate wins international award

Matthieu Marchiniak, a 2011 Oenology and Viticulture graduate, was recently awarded one of two Giuliano Bortolomiol Awards.

The prize is awarded to distinguish outstanding research conducted during a MSc thesis concerning quality white wines.

The 2,290 euro prize (about \$3,100 Canadian) is given by the Bortolomiol Winery in Treviso, Italy.

Matthieu completed his thesis titled "Using GPS, GIS and Remote Sensing to Understand Niagara Terroir" under the supervision of CCOVI Researcher Andy Reynolds.

Reynolds says what made Marchiniak's thesis unique was that he collected four years of field data for the project and combined several disciplines including geomatics (GPS, GIS), basic viticulture, plant physiology, soil science, remote sensing and sensory science.

His project looked at relationships between variables such as soil moisture and grapevine water status and how they might be measured remotely, and how they might have an effect on the sensory aspects of Riesling.

Continuing Education



Registration is now open for spring classes.

OEVI 0N06 WSET Level 2 Intermediate Certificate in Wines & Spirits

This course is geared to those employed in the beverage industry or anyone wishing to

broaden their knowledge of wine and spirits in a structured way.

The course runs Wednesday evenings at 6 p.m. for nine weeks starting April 10, 2013.

To view the full list of courses, or to register, visit: brocku.ca/ccovi

Canada's best wines headed to England

Canadian wineries will soon have another opportunity to present their best to some of the world's most influential critics: British wine writers.

Wine Country Ontario and Canada's Department of Foreign Affairs and International Trade – building off the 2010 success of the UK's Seriously Cool Chardonnay Tasting – have partnered to offer a second tasting at Canada House in London on May 16.

As wineries from across Canada are invited to submit their wines, the Cool Climate Oenology and Viticulture Institute (CCOVI) will again organize the selection process for wines to be showcased in England.

The UK event is a high-profile international stage on which to demonstrate that Canada's fine wine industry produces more than just

Chardonnay and Icewine. Canadian organizers will be emphasizing that Canada's wine regions also produce high quality reds.

"CCOVI is very happy to support this initiative," said Barb Tatarnic, Manager of Continuing Education and Outreach at CCOVI.

"Participating in the 2010 event, CCOVI realized this important opportunity to increase awareness of Ontario wines to the wine trade and media in London."

The UK event will also provide an opportunity for Canadian wineries to meet with importers and distributors, and attend an export information session.

To participate wineries must first submit their entries to an online form. For details on the submission requirements, contact Linda Watts at the Wine Council of Ontario, 905-562-8070 Ext 223.

New MSc defends thesis



From left to right: Andrew Reynolds, Mary Jasinski, Ralph Brown

Mary Jasinski successfully defended her MSc in Biotechnology on Dec. 20, 2012. Her dissertation was titled "The Terroir of Winter Hardiness: Investigation of Winter Hardiness, Water Metrics, and Yield of Riesling and Cabernet Franc in the Niagara Region Using Geomatic Technologies".

Mary defended her thesis before Dr. Andrew Reynolds, Dr. Ralph Brown, Dr. Jeffrey Atkinson, Dr. Melanie Pilkington (chair) and Dr. Imed Dami (external examiner).

Mary is currently working as a Research Assistant at CCOVI.

CCOVI launches new workshop series

As part of their extended outreach activities, the Cool Climate Oenology and Viticulture Institute (CCOVI) has designed a series of new workshops entitled Calibrate With CCOVI. The series looks to assist professionals in the grape and wine industry to help improve the various aspects of their operations.

The five-part series includes calibration workshops on: lab (both juice and wine analysis), vineyard, palate and sales and marketing.

Calibrate your Lab in September provided wineries a chance to test the equipment used for juice analysis against CCOVI's Analytical Services Lab just prior to the fall

harvest.

Calibrate Your Vineyard hosted a sold out workshop in January with participants learning winter pruning best practices from CCOVI experts Jim Willwerth and Kevin Ker.

Next up in the series in the Calibrate Your Lab-Wine Analysis workshop which will take place in March. The goal is to assess the accuracy and precision of winery analyses performed on wine samples and will be run similar to the first Calibrate Your Lab.

For more information about the calibrate series visit: brocku.ca/ccovi/outreach-services

Riesling Experience 2013

Registration has now opened for the 2013 Riesling Experience. The conference will take place June 11 and 12, at Brock University. Day one will feature Riesling experts while day two will offer the opportunity to tour through Niagara-on-the-Lake vineyards.

The Riesling Experience committee is pleased to announce the speakers lineup for the conference will be: Terry Acree, a flavour chemist from Cornell University; Shari Mogk-Edwards, Vice-President of Merchandising and Vintages at the Liquor Control Board of Ontario; and keynote speaker Nikolaus Peter Weis, Owner and General Manager of St. Urbans-Hof Family Estate Winery.

CCOVI Briefs

Viticulture

- Reynolds, A.G. (2012). New Adventures in Vineyard Geomatics. Cornell University Department of Horticulture Seminar Series, Ithaca, NY, Oct. 3, 2012.

CCOVI Publications

Oenology

- Botezatu, A., and G.J. Pickering (2012). Determination of Ortho- and Retronasal Detection Thresholds and Odor Impact of 2, 5-Dimethyl -3 - Methoxypyrazine in Wine. *Journal of Food Science*, 77(11): S394-S398
- Pickering, G.J., A.K. Jain, and R. Bezawada (2013). Super-tasting gastronomes? Taste phenotype characterization of foodies and wine experts. *Food Quality and Preference*, 28: 85-91.

Viticulture

- Balint, G. and A.G. Reynolds (2012). Impact of exogenous ABA on vine physiology and grape composition of Cabernet Sauvignon. *American Journal of Enology and Viticulture*, 63: 343-356
- Holland, T.C., A.G. Reynolds, P. Bowen, C. Bogdanoff, M. Marciniak, R.B. Brown and M.M. Hart (2012). The response of soil biota to water availability in vineyards. *Pedobiologia* 55:9-14.
- Reynolds, A.G., D Sorokowsky, and W. Gensler (2012). Evapotranspiration-based irrigation scheduling for Syrah in California. Assessing vine water status by petiole electrical potential. *American Journal of Enology and Viticulture*, 63: 343-356.

International guest speakers come to Brock on Feb. 5 and 6

The week of Feb. 4, there will be two special presentations by international guest speakers at Brock University.

Tuesday Feb. 5

Dr. Ilona Schneider
Oenologist, Development
Engineer Food & Beverage,
Eaton's Begerow Product
Line, Germany
Topic: Bringing out the best in
your cool climate wines
Time: 1-2:30 p.m.
Location: Sankey Chamber,
Brock University
Co-sponsored by: AO Wilson

Wednesday Feb. 6

Dr. Peter Salamone
Technical Manager,
Laffort—USA
Topic: Sur Lie Science—Wine
Character Revealed
Time: 2:30-4 p.m.
Location: H313, Mackenzie
Chown Complex, Brock
University
Co-sponsored by: Laffort USA

2013 CCOVI Lecture Series

Featuring talks by CCOVI Researchers, Fellows
and Professional Affiliates.

The free lectures are at 2:30 p.m. EST

Room H313, Mackenzie Chown Complex, Brock University

Live webcasts & archived video available at brocku.ca/ccovi

January

Wednesday, Jan. 30
Dr. Kevin Ker
CCOVI Professional Affiliate
Industry Consultant in
vineyard management,
KCMS Applied Research and
Consulting
Topic: *Vine Nutrition 101:
Healthy Vines Make Hardy
Vines!*

Wednesday, March 13
Dr. Ronald Jackson
CCOVI Fellow
Wine Writer, Author
Topic: *Wine Language:
Insight into the Mind of the
Taster*

February

Wednesday, Feb. 13
Dr. George van der Merwe
CCOVI Fellow
Associate Professor of
Molecular and Cellular
Biology, University of
Guelph
Topic: *Getting Started in
Wine Fermentations:
Challenges the Yeast has to
Overcome*

Wednesday, March 20
Dr. Maxim Voronov
CCOVI Fellow
Associate Professor of
Strategic Management,
Brock University
Topic: *Legitimizing Ontario
Fine Wine: Encountering
Globalization, Managing
History*

Wednesday, Feb. 27
Daniel O’Gorman
CCOVI Professional Affiliate
Research Biologist,
Agriculture and Agri-Food
Canada, Pacific Agri-Food
Research Centre (PARC)
Topic: *Development of a
DNA Macro-array for
Detection of Young Vine
Decline Pathogens*

Wednesday, March 27
Dr. Debbie Inglis
CCOVI Director and
Researcher
Associate Professor of
Biological Sciences,
Brock University
Topic: *Appassimento Wines:
Developing a Signature Style
for Ontario*

March

Wednesday, March 6
Dr. Tony Shaw
CCOVI Fellow
Professor of Geography,
Brock University
Topic: *Climate Change:
Opportunities and Risks for
Ontario’s Established and
Emerging Wine Regions*

April
Wednesday, April 3
Dr. Jeffrey Stuart
CCOVI Fellow
Associate Professor of
Biological Sciences, Brock
University
Topic: *Bioactive
Polyphenols from Wine
Grapes*

Wednesday, April 10
Dr. Jim Willwerth
CCOVI Staff Scientist
Viticulturist, Brock
University
Topic: *Getting Through the
Winter: Updates on Freeze
Protection and Cold
Hardiness Research*