

August 2012

CCOVInews

A newsletter from
the Cool Climate Oenology
and Viticulture Institute



CCOVI
Brock University

Innovation leads to global honour

A Brock University presentation about the Ontario wine industry adapting to climate change has been honoured as one of the three best papers delivered at a major conference in the heart of France's wine country.

MA student Kerrie Pickering won the "Award for Innovation" when her presentation was cited from 60 submissions at the International Conference on Innovation and Trends in Wine Management, held recently in Dijon.

Her paper was titled "Innovation and adaptation in the Ontario grape and wine industry: An integrated, transdisciplinary response to climate change." The full list of authors includes Brock scientists Debbie Inglis, Gary Pickering, Ryan Plummer and her supervisor Tony Shaw.

As Ontario grape growers see an increase in the frequency and intensity of extreme weather events, Kerrie says the Brock team is examining the industry's ability to implement strategies that reduce the impact of climate change.

"We are trying to look at the industry's capacity to cope with extreme events," she said. "We are developing some strategies to address this but now we need to know what the industry needs to be able to implement and mobilize them."

The research is a collaboration of the Cool Climate Oenology and Viticulture Institute (CCOVI) and Brock's Environmental Sustainability Research Centre, where Kerrie is a project manager. This unique partnership has researchers from different disciplines working together to examine the challenge of



Kerrie Pickering accepting her award

adapting to climate change.

"A lot of interest with climatic change has addressed and continues to address mitigation," says Plummer, who is Director of the Environmental Sustainability Research Centre. "Increasingly there is a realization that adaptation, how you build the capacity to deal with change and adapt, is critical."

Traditionally, research looking at adaptive capacity has focused on one aspect that affects the ability of an industry to adapt to change. Kerrie's approach was to look at the full set of determinants to have a complete picture of how to build adaptive capacity.

The project identified that the industry's capacity to mobilize resources to support new products and strategies was largely determined by eight key considerations. These considerations are: financial, is there access to economic resources; institutional, is there effective leadership in the

industry; access to technology; political connections; perception of risk; diversity in income; knowledge transfer; and social capital.

Although this project focused on Ontario, the framework developed is able to be applied to any wine region in the world by considering the same factors.

The next step for this project involves gaining valuable feedback from the industry. An online survey is out now with grape growers and vintners in Ontario. Kerrie hopes the responses will give researchers insight that will help them target the support structure to implement adaptive strategies.

This initiative is supported by funding through the Ontario Ministry of Economic Development and Innovation's (MED) Ontario Research Fund, which supports industry-led research and innovation. This project is a collaboration between MED, Agriculture and Agri-Food Canada, the Grape Growers of Ontario and Brock's CCOVI.

Students for hire

Planning to hire
vineyard, winery or
retail staff?

Recruit our graduates and students who are skilled in winemaking, viticulture and wine business.

Students in the Oenology and Viticulture (OEVI) program at Brock University are seeking jobs for 2012.

To have a position posted for our OEVI students:
Call 905-688-5550 x4949
or email jennifer.roberts@brocku.ca

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Experimenting with careers in science



Grade 11 girls get hands-on lab experience during Scientifically Yours

The Cool Climate Oenology and Viticulture Institute (CCOVI) was pleased to be a part of the annual Scientifically Yours event held in May. The two-day residential workshop is designed to encourage Grade 11 girls to continue their studies in science at the university level.

Oenology and Viticulture featured an activity called the "Yeast Crime", led by MSc students Caitlin Heit and Mary Jasinski. During this activity, students had to determine if one of the spoilage yeasts found in the winery infected the Chardonnay. The girls had to complete four activities using scientific training, deductive reasoning and evaluation of evidence to determine which of three suspect yeasts caused a foul odour.

"Scientifically Yours brings together girls who want to go into a range of different

science programs," Jasinski says. "It's interesting to see how they use these different perspectives to look at a problem like the Yeast Crime."

The activities gave the students exposure to what they could expect to see over their undergraduate career. They looked at growth in petri dishes where they learned how to identify yeast morphologically based on size and shape. Next, they took to the microscope and learned how to identify yeast based on budding patterns. After that, the students examined a sensory wheel to learn about wine aroma profiles and different faults in wine caused by yeast metabolism. Lastly, they got insight into Agarose gel electrophoresis where they learned about PCR, applications of gel electrophoresis and the technique itself.

Niagara-on-the-Lake alumni wine tour

Sunday, September 23 (10 am to 4 pm)

Brock Days presents a tour of Niagara-on-the-Lake wine country. Start off with a guided tour of CCOVI's Inniskillin Hall then board the bus to visit and taste at three wineries with a Brock connection.

Tastings and lunch is included.

Enjoy the entire day for \$50.00 - Space is limited and, sorry folks, this is limited to Brock Alumni only.

brocku.ca/brock-days

Research Q & A

Understanding consumer values



Cool Climate Oenology and Viticulture Institute (CCOVI) Fellow Narongsak (Tek)Thongpapanl

(Tek)Thongpapanl is Chair of the Department of Marketing, International Business and Strategy at Brock University. He is working with CCOVI Fellows Dirk De Clercq and Maxim Voronov.

What is this research project looking at?

This project is trying to get a better understanding of why consumers buy the wine they drink. Specifically, we are looking to see how social and situational influences impact purchasing decisions, in addition to and in relationship with utilitarian, hedonic and epistemic value elements.

In the past, these two values have been examined independently from the three remaining values. Now, we are looking to see what the interaction effect between a consumer's social and situational values means in terms of their consumption amount and willingness to pay for wine. For instance, does a more formal occasion change the purchase choice a consumer is making, and does the fact that friends and/or family will be there also impact that decision?

Understanding how these values interact will help create marketing campaigns that are more effective at influencing consumer choices.

How are you analyzing this?

We surveyed 250 Ontario wine consumers to test our consumer value model. We hope to conduct a follow-up study this fall to further validate our initial results.

To measure the influence

of symbolic or social values we looked at aspects such as the extent to which the consumer shopped based on their desires and needs for self-enhancement or group membership. For the conditional or situational value we look at how the occasion for drinking the wine influences their purchasing behaviour.

What have you learned so far?

The research has found that consumer values, consumption situations, and symbolic positions simultaneously and interactively determine how consumers decide on a wine purchase. Generally speaking, the higher the levels of the social and situational influences are, the stronger the link between the three consumption values, willingness to pay, frequency of consumption and frequency of purchase is.

How do you hope this will benefit the industry?

The research will help us better understand what influences the consumer's decision making, and in turn, afford us the information and knowledge needed to develop more precise marketing strategies and mixes for specific wine products/brands for the targeted consumer segments. That is, the findings of this research should allow us to better position particular wines in the marketplace and to better serve our wine consumers from beginner to advance differentially based on their value profiles. In short, the study gives fresh perspective to the old saying, "Not all wines and not all wine consumers are created equal," so let's not treat both of them as such.

This project is supported by funding from the Social Sciences and Humanities Research Council.

International visitors tour CCOVI



On Thursday May 3, CCOVI welcomed 27 oenologists from Italy and France to Brock University.

The group were members of Perdomini-IOC, an Italian subsidiary of the Institut Oenologique de Champagne located in France. The company is involved in production and sales of oenology products and services in the Champagne region, the French market and all the main viticulture areas in the world such as Australia, USA, Argentina and China. The visit was made possible in association with Lallemand Inc., a Canadian company specializing in the development, production and marketing of yeasts and bacteria.

The guests were greeted with a tour of CCOVI's facilities led by Director Dr. Debbie Inglis, who discussed CCOVI research that targets issues facing the Canadian wine industry. After touring the laboratories, the visitors received a first-hand look at the amenities available to students in the teaching winery. The Canadian Wine Library was the next stop where the oenologists were shown the cellared collection of Ontario's VQA wines and the Vinotheque of wines made by students during their undergraduate and graduate programs. The group ended their tour with a tasting of local Icewines in the sensory laboratory where they had the opportunity to learn more about the processes involved in this signature indulgence.

New Marketing and Communications Officer joins CCOVI

The Cool Climate Oenology and Viticulture Institute (CCOVI) welcomes Kaitlyn Little as their new Marketing and Communications Officer.

Kaitlyn is a graduate of the University of Guelph's Bachelor of Commerce program majoring in Public Management. She brings with her communications experience from her time working for both the Government of Canada and

the University of Guelph.



To contact Kaitlyn:

Call: 905-688-5550 ext. 4471

Email: klittle@brocku.ca

Tweet: @CCOVI_brocku

Extreme winemaking 101

The International Cool Climate Chardonnay Celebration - known as the i4C - brought together some of the world's top Chardonnay producers and wine enthusiasts to celebrate the rebirth of a seriously cool grape from July 20-22, 2012.

Brock University's Cool Climate Oenology and Viticulture Institute was honoured to host the sold-out educational stream of the conference: Extreme Winemaking - viticulture and winemaking in cool climate regions. The inaugural event took place on Friday July 20 and featured a set of talks with a "cool by" theme. Speakers included winemakers and growers from France, Argentina, British Columbia, California, Australia and Ontario.

The educational session offered attendees the opportunity to discover the many ways that Chardonnay can be considered "cool" - latitude and altitude, steep alpine vineyard sites and extreme variations in weather conditions.

Participants were able to

gain an enhanced understanding of, and appreciation for, climatic influences on wine, allowing them to draw parallels between cool climate regions once perceived as unrelated.

"Our goal is not only to celebrate this fabulous grape, but to empower our guests to discover more fantastic cool climate Chardonnays after the event weekend" said Ron Giesbrecht, winemaker at Henry of Pelham and i4C co-chair of the Educational Program.

After the panel presentations, wines from the six vineyards were tasted with each presenter giving insight into what made that vintage "cool". Stephen Brook, contributing editor to Decanter Magazine, moderated a question and answer period with the panel that touched on winemaking, grape growing and marketing cool climate Chardonnays. The session was followed by a lunch that allowed for more casual conversations.



The tasting was one of the highlights of the session. Chardonnay from the speakers' six wineries were highlighted.

Photo courtesy of Elena Galey-Pride

CCOVI Briefs

Business

- Mantonakis, A., Beckett, R. and Galiffi, B. (2012). How the ease of processing information affects our judgments, perceptions, and behaviors. Association for Psychological Science, Chicago, May 26- 27, 2012.
- Massa, F.G., Voronov, M. and Helms, W. From the heart: Affective legitimization in the Ontario Wine Industry. Meeting of the European Group of Organization Studies, Helsinki, Finland, July 6, 2012.

Environmental Science

- Pickering K., Pickering, G.J., Inglis, D., Shaw, T., and Plummer, R. (2012). Innovation and adaptation in the Ontario grape and wine industry: An integrated, transdisciplinary response to climate change. (Refereed) Proceedings of the International Conference on Innovation and Trends in Wine Management, Dijon, France, June 22, 2012.

Oenology

- Bock, I. and Inglis, D. (2012). Evaluating the role of *B. cinerea* in its noble for in appassimento wine production using five post-harvest grape drying methods. 37th Annual ASEV ES Conference, Traverse City, Michigan, July 26-19, 2012.
- Heit, C. and Inglis, D. (2012). An investigation of the relationship between ethyl acetate production and *cervisiae* KI-V1116 during high brix fermentations. 37th Annual ASEV ES Conference, Traverse City, Michigan, July 26-19, 2012.

Viticulture

- McFadden-Smith, W. (2012) What to spray, when to spray it and how to get it where you want it. BC Enology & Viticulture Conference and Tradeshow, Penticton, BC, July 16-17.
- Reynolds, A.G. (2012). New adventures in vineyard geomatics. BC Enology & Viticulture Conference and Tradeshow, Penticton, BC, July 16-17.
- Huber, C., Inglis, D. and McFadden-Smith W. (2012). Management of Sour Rot in the Niagara Region. 37th Annual ASEV ES Conference, Traverse City, Michigan, July 26-19, 2012.

CCOVI Publications

Oenology

- Gaudette, N.J. and Pickering, G.J. (2012). The Efficacy of Bitter Blockers on Health-Relevant Bitterants. Journal of Functional Foods, 4 (1), 177-184.
- Hayes, J.E. and Pickering, G.J. (2012). Wine expertise predicts taste phenotype. American Journal of Enology and Viticulture, 63 (1) 80-84.
- Pickering, G. J., (2012). Wine market segmentation and exploitation based on taste phenotypes: evidence and opportunities. (Refereed) Proceedings of the International Conference on Innovation and Trends in Wine Management, Dijon, June 22, 2012. Groupe ESC Dijon Bourgogne, Institut Du Management Du Vin. Digital PDF file, paper 30:1-9.

Viticulture

- Bowen, A.J. and A.G. Reynolds. Odor potency of aroma compounds in Riesling and Vidal blanc table wine and icewines by gas chromatography-olfactometry-mass spectrometry. J. Agric. Food Chem. 60:2874-83.
- Jasinski, M., A.G. Reynolds, and F. DiProfio. 2012. The terroir of winter hardiness: Investigation of spatial variability of winter hardiness and yield in Riesling and Cabernet franc vineyards in the Niagara Region using geomatic technologies. In: Bois, B. (Ed.). Proc. XI^{eme} Congrès des Terroirs, Vol. 2, pp. 8-45 to 8-50.
- Reynolds, A.G. 2012. Soil and climate interactions with grapevines. In: Bois, B. (Ed.). Proc. XI^{eme} Congrès des Terroirs, Vol. 2, pp. 7-1 to 7-4.

Niagara Wine Festival: Educate your senses

Brock's CCOVI will partner with Niagara College to host wine and food pairing as part of the educational component to the **Niagara Wine Festival**. New to 2012 will be the Culinary Theatre featuring a food demonstration pairing with one of the wines presented at each seminar. Hosted by Linda Bramble, meet the winemakers of some of your favourite Niagara wines. Some sessions feature graduates of the Oenology and Viticulture program at Brock University as part of the annual Brock Days line-up.

Dates: September 22, 23 and 29, 30, 2012

Times: 1:00 pm, 3:00 pm, and 5:00 pm

Location: Culinary Theatre, Montebello Park

Cost: 2 tokens (with a glass) or 3 tokens (we'll give you the glass)

Limited seating - pre-book when you arrive at the park.



Barb Tatarnic

Continuing Education

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

Wednesdays at 6 p.m. starting Oct. 10 (nine weeks).

For beverage industry employees or anyone wishing to broaden their knowledge of wine and spirits in a structured way.

OEVI 0N01 - Wine Appreciation - Exploring Varietals

Mondays at 7 pm starting Sept. 17 (12 weeks).

A special-interest course focused on the tasting of wines from Canada and around the world to help you to develop your palate.

For more information, contact Barb Tatarnic at 905-688-5550 x4652 or ccovi@brocku.ca.

For a complete list of courses or to register online go to brocku.ca/ccovi and click "Continuing Education".