

Summer 2019

CCOVInews

A newsletter from
the Cool Climate Oenology
and Viticulture Institute



Cool
Climate
Oenology &
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Institute

Brock University

CCOVI scientist's grapevine virus research gets global recognition



Photo Caption: CCOVI Grapevine Virologist Sudarsana Poojari earned international recognition for his grapevine virus testing research.

Grapevine virus testing research has earned a senior scientist at Brock University's Cool Climate Oenology and Viticulture Institute (CCOVI) international recognition.

Grapevine Virologist Sudarsana Poojari's research has been evaluated by a French research group and published in the reputed EPPO Bulletin, the official publication of the European and Mediterranean Plant Protection Organization (EPPO).

Poojari's virus test is cited in the EPPO publication titled "Selection, optimization and characterization of molecular tests for the detection of Tobacco ringspot virus (TRSV)."

The authors recommend the protocol published by Poojari and his co-authors be used in post-entry quarantine purposes as well as virus surveys on grapevines worldwide. TRSV is a quarantine virus in Canada that the Canadian Food Inspection Agency has protocols in place to test imported grapevines for.

The recognition, Poojari said, helps to bring awareness to this area of research.

"Through CCOVI's grapevine virology lab, we offer commercial virus testing and also work in collaboration with researchers across Canada," he said. "Our main focus is to deliver better and accurate diagnostic services and having this kind of recognition is important for the Canadian grape and wine industry, as well as the research programs that we are carrying out."

Poojari joined CCOVI last summer to establish the virus testing service and since then his team has performed almost 30,000 virus tests. Grapevines, like other plants, are susceptible to virus and virus-like agents that can negatively impact the health and quality of the vine and its products. They can be spread from plant to plant through virus-infected planting material as well as by some insect species.

CCOVI's ongoing research and testing, in partnership with Ontario Grape and Wine Research Inc., is helping grape growers detect and manage these diseases.

This laboratory work supports the federally funded Canadian Grape and Wine Science Cluster, a collaborative project which includes university researchers, federal research scientists, grape growers and industry partners in Ontario, B.C., Quebec and Nova Scotia. It's overseen by the national grape and wine not-for-profit, Canadian Grapevine Certification Network, which is working to advance the \$9-billion industry with a sustainable supply of quality grapevine material.

“ In Canada, we don't have a grapevine certification program. Now that the Canadian Grapevine Certification Network has been formed, the industry is moving forward to establish such a program” Poojari said. “It's important to keep grapevines clean of viruses because once they are infected, there is no cure. Growers have to remove and replace them with healthy, virus-free ones. ”

Brock's CCOVI partners with industry to produce certified clean grapevines

Brock University's Cool Climate Oenology and Viticulture Institute (CCOVI) has partnered with the grape and wine industry to produce certified, virus-free grapevines.

The Government of Canada recently committed \$2.3 million in funding over the next three years to support the Canadian Grapevine Certification Network (CGCN) as it develops certified vines for grape growers. As part of the project, CCOVI will be the national testing provider.

"This funding will give nurseries a jump start to providing domestically certified clean plant material to the grower community across Canada and allow the industry to be less reliant on imported material," said CCOVI Director Debbie Inglis. "Nurseries will have the opportunity for lower-cost virus testing by cost sharing with the CGCN. We're looking forward to working closely with the industry to make sure growers are starting out with clean plants to assist the long-term viability of the Canadian grape and wine sectors."

CCOVI will catalogue and assess vines used for plant propagation from nurseries and grape growers across Canada. This will ensure that only vines testing negative for targeted viruses are used to generate new

plants receiving the CGCN certification, which will help keep Canada's vineyards virus-free.

"Canada's vineyards have become an important part of our national economy," said Minister of Justice and Attorney General of Canada David Lametti as he announced the government's commitment to the project. "With this funding, the Canadian Grapevine Certification Network will help ensure that growers have access to high-quality, locally-sourced grapevine stock to keep their fields healthy and prosperous."

CGCN Vice Chair and grape grower Bill Schenck said announcement is the next step in the creation of a clean plant network for grapevines in Canada.

"We have been working closely with researchers at CCOVI and this funding will expand what we can do as far as testing our grapevines," he said. "This will allow us to work more closely with nurseries as we try to clean up vines in the ground and help growers plant healthy vineyards."

The CGCN is also leading national research initiatives for grape and wine, receiving funding through Agriculture and Agri-Food Canada (AAFC) and industry

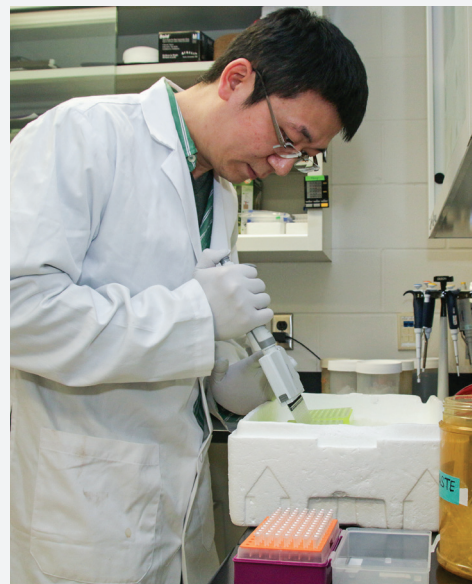


Photo caption: Research assistant Tony Wang performs a grapevine virus test in a Brock CCOVI lab.

partners of more than \$11 million last year to establish the Canadian Grape and Wine Science Cluster. The cluster is a collaborative project which includes researchers at Brock and other universities across the country as well as AAFC scientists, grape growers and industry partners in Ontario, B.C., Quebec and Nova Scotia.

Seriously cool outreach at i4C

At this year's International Cool Climate Chardonnay Celebration (i4C), CCOVI's team took a seriously cool approach to education outreach at two events.

Guests attending the Cool Chardonnay World Tour Tasting were able to take part in CCOVI's activity What Kind of Cool Are You?

Organized by CCOVI's Outreach Manager, Barb Tatarnic, it helps guests discover their Chardonnay profile.

"We poured four different styles so guests could decide if they preferred a Chardonnay that fell in the category of crisp, fruity, smooth or rich," said Tatarnic. "The blind tasting is designed to be a fun and interactive self-discovery type of session. Once people knew which style they preferred, it helped them to understand their own palate and, with that knowledge, to navigate through the Chardonnays from around the globe available at the tasting."

CCOVI is also a sponsor of the i4C's School of Cool education day with senior scientist Jim Willwerth moderating a session.



Photo caption: OEVI students Marnie Crombleholme, Jeff Moote and Christopher St. Louis assist CCOVI's Barb Tatarnic at the Cool Chardonnay World Tour.

International Cool Climate Wine Symposium to highlight Canada's wine industry

Canada will welcome the world to Brock University next summer for one of the most prestigious wine conferences, the International Cool Climate Wine Symposium (ICCWS).

From July 12 to 16, 2020, leading researchers, winemakers, grape growers, educators and media from across the globe will gather at Brock for the 10th instalment of the symposium, which takes place every four years.

Brock's Cool Climate Oenology and Viticulture Institute (CCOVI) is planning the event alongside its research and industry partners across the country. This is the first time the conference has come to Canada and it will focus on how climate change is driving innovation in the grape and wine industry.

"This is an issue that impacts all cool climate wine regions," said CCOVI Director Debbie Inglis. "The ICCWS will give researchers from diverse fields the chance to showcase the cutting-edge work they are doing and discuss innovative practices that can help ensure the vitality of cool climate grape growing and winemaking."

Brock is pleased to welcome Nobel Prize-winning physicist Brian Schmidt as the opening keynote speaker. Schmidt is an expert on issues of climate change and has his own cool climate vineyard and winery. He is also Vice-Chancellor and President of the Australian National University.

"The International Cool Climate Wine Symposium is where the world of science and industry gets together every four years to better understand how to make outstanding wines in cool climates," said Schmidt.

"The climate is changing and changing rapidly. ICCWS 2020 is chance for cool climate winemakers, like myself, to get on top of the science and experiences from around the world to ensure they are relevant in this fast changing and highly competitive environment."

Schmidt has joked on social media that he is looking forward to visiting Canada and meeting Niagara's Brian Schmidt, winemaker at Vineland Estates, to cause some confusion.

ICCWS conference sessions will focus on viticulture, oenology, wine business and science communication. Each of the four themes will include a number of speakers, seminars, master classes and workshops.

Regina Vanderlinde, President of the International Organisation of Vine and Wine (OIV), has been named as the oenology keynote speaker and will talk about the global wine overview to climate adaptation and the challenges of adopting new technology in wineries.

As the viticulture keynote speaker, Elizabeth Wolkovich from the University of British Columbia will share her research on how climate

change affects different wine grape varieties and how shifting varieties may help growers.

The science communication keynote speaker will be Kimberly Nicholas, Associate Professor of Sustainability Science at Lund University in Sweden. Her research focuses on sustainable farming systems, the wine industry under climate change, and linking research with policy and practice to support a zero-emissions society.

In addition to the conference sessions at Brock, in the heart of the Niagara wine region, those attending will also have the opportunity to participate in pre- and post-conference programming that will showcase Canada's wine regions from coast to coast.

International delegates will be introduced to Canadian wines and local culinary offerings through a number of special farm-to-table dinner options at local wineries, a Taste of Canada event and a banquet dinner at Brock University.



Learn more about the conference at iccws2020.ca

WHAT'S HAPPENING AT CCOVI

Continuing Education Courses

August 19-23

Cider and Perry Production - A Foundation

September 24 - December 10

OEVI ON01 - Wine Appreciation - Exploring Varietals

October 16-18

Essential Laboratory Testing of Cider & Perry

Triggs Lecture Series

Vaughn Bell (Ph.D.), Senior Scientist, New Zealand Institute for Plant and Food Research is the 2019 featured speaker

Topic: A pathway towards leafroll virus management: The New Zealand experience

Ontario dates: August 8 & 9

British Columbia dates: August 13 & 14



CCOVI's Great Chardo Swap pits East vs. West

A dozen Niagara winemakers are making one-of-a-kind wines to showcase the local industry at an international event.

The project, called The Great Chardo Swap, has six winemakers from east of the Welland Canal making wine from Chardonnay grapes grown on the west side of the canal, and six winemakers from the west side making wine from grapes grown on the east side.

Top VQA wine promoters honoured at Experts Tasting



The 2019 VQA Promoters Award winners include, from left, Victor Borja-Sheen, LCBO; Maribeth Mckey, hospitality; Michal Matyjewicz and Jeff Graham, promoter-at-large; Ron Giesbrecht, education; and Helen Fisher, lifetime achievement. Absent from the photo is Meg McGrath, retail.

More than 120 wine writers, educators and industry professionals gathered at Brock University on Tuesday, June 18 for the 30th annual Experts Tasting, which promotes Ontario VQA wine and celebrates individuals who have helped grow and promote the grape and wine industry.

Organized by Brock's Cool Climate Oenology and Viticulture Institute (CCOVI), the 2019 tasting focused on Riesling, from sparkling to Icewine. Five flights showcased a total of 35 wines with industry experts guiding guests through the tasting.

"The Experts Tasting has been designed for the trade — primarily media, product consultants, sommeliers and wine educators who promote VQA wines," said event organizer Barb Tatarnic, Manager of Outreach and Continuing Education at CCOVI. "This event allows guests to taste and learn alongside their peers in the industry. This tasting showcased multiple vintages and styles of Riesling and clearly showed what this variety can bring to the Ontario industry year after year."

The event also honours outstanding achievements and contributions by presenting VQA Promoters Awards to individuals who advance the industry through promotion or education.

The Sparkling Winos — wine bloggers Jeff Graham and Michal Matyjewicz — were recognized for promoting and raising the profile of VQA wines in the promoter-at-large category.

"This is something that we do purely as a hobby. This isn't a full-time job," said Graham. "We invest so much of our time and effort into Sparkling Winos, so it means everything to be recognized for that from our peers and other industry professionals we admire."

The social media influencers say they are passionate about educating people about VQA wine.

"There is so much going on in this area, so many quality wines and such a focus on quality winemaking," said Matyjewicz. "I think that is what makes it a unique wine region and makes it a really easy sell for us to help spread the word about sparkling and other VQA wines."

The lifetime achievement award was presented to Helen Fisher, retired viticulture research scientist from the University Guelph, who was recognized for her groundbreaking work in the vineyard and her research into wine grape selections for cool climate regions.

The 2019 VQA Promoters Award winners include:

- **Retail:** Meg McGrath, Retail Manager, Hidden Bench Winery
- **Hospitality:** Maribeth Mckey, Food and Beverage Manager, Inn on the Twenty
- **LCBO:** Victor Borja-Sheen, Product Consultant, LCBO
- **Education:** Ron Giesbrecht, Professor, Niagara College
- **Promoter-at-Large:** Jeff Graham and Michal Matyjewicz, The Sparkling Winos
- **Lifetime Achievement:** Helen Fisher, retired researcher, University of Guelph

PUBLICATIONS & BRIEFS

- Bowen P, Bogdanoff C, Urbez Torres JR, Poojari S, Usher K and Lowery T. 2019. Effects of Grapevine Red Blotch Disease on Cabernet Franc Vine Physiology, Fruit and Wine Quality, and Bud Hardiness. ASEV 2019. Napa, CA, USA.
- Kemp, B., Trussler, S., Willwerth, J. and Inglis, D. (2019). Applying Temporal Check-All-That-Apply (TCATA) to mouthfeel and texture properties of red wines. Journal of Sensory Studies. 34(4) e12503
- Mitchell, J., Castura, J., Thibodeau, M., and Pickering, G. (2019). Application of TCATA to examine variation in beer perception due to taste phenotype. Food Quality and Preference. 73: 135-142.
- Morris, S and Pickering, G. (2019). Visual Representations of Climate Change in Canada. Journal of Environmental and Social Sciences. 6(1): 1-11.
- Robb, J-L & Pickering, G. (2019). Alcohol consumption in a non-clinical sample: the role of sweet-liking, PROP bitterness and sex. Journal of Drug and Alcohol Research. 8: 1-10.
- Small-Kelly, S. and Pickering, G. (2019). Variation in orosensory responsiveness to alcoholic beverages and their constituents - the role of the thermal taste phenotype. Chemosensory Perception.
- Cyr, D., Kushner, J., Bowie, C. (2019). What happened to the potential for weather derivatives in viticulture? American Association of Wine Economist 13th Annual Conference, July 14-19, Vienna, Austria
- De Felice Renton, L., Kemp, B., Inglis, D. (2019). Niagara Cabernet franc tannin concentrations: Hard pressed to find a difference. British Columbia Wine Growers Council (BCWGC) Oenology and Viticulture Conference. Penticton Trade & Convention Centre, Penticton, BC, Canada. 15-16th July 2019.
- Holford, R., Kemp, B., Inglis, D. (2019). The impact of extended maceration of Cabernet sauvignon on wine tannin four months post fermentation. British Columbia Wine Growers Council (BCWGC) Oenology and Viticulture Conference. Penticton Trade & Convention Centre, Penticton, BC, Canada. 15-16th July 2019.
- Kaleci, R., Pickering, G. and Kemp B. (2019). What do we really know about Maillard Reaction compounds in sparkling wine? WineGB Winemaking Technical Conference 2019. Denbies Wine Estate, Surrey, England. 24th June 2019.
- Kelly, J., van Dyk, S., Pickering, G., Kemp, B., Inglis, D. Molecular characterization of locally isolated yeast CN1 and its ability to consume acetic acid during wine fermentation. British Columbia Wine Growers Council (BCWGC) Oenology and Viticulture Conference. Penticton Trade & Convention Centre, Penticton, BC, Canada. 15-16th July 2019.
- Kemp, B. (2019). Sparkling Wine Masterclass. Tasmanian Institute of Agriculture (TIA), University of Tasmania, Launceston, Tasmania, Australia. 26th July 2019.
- Kemp, B., McCurdy, M., Kaleci, R., Inglis, D., Pickering, G. (2019). Sparkling wine workshop: Importance of nitrogen type for yeast acclimation for 2nd fermentation and associated Maillard reaction compounds. Australian Wine Industry Technical Conference (AWITC). Adelaide Convention Centre, Adelaide, South Australia. 21st-24th July 2019.
- Kemp, B., Yang, F., Wang, T., Shakya, S., De Felice Renton, L., Holford, R., Inglis, D. Skin versus seed tannin development of red grape varieties in Ontario from véraison to harvest. British Columbia Wine Growers Council (BCWGC) Oenology and Viticulture Conference. Penticton Trade & Convention Centre, Penticton, BC, Canada. 15-16th July 2019.
- Kemp, B., Holford, R., Kelly, J., Inglis, D. (2019). Tannin addition for low tannin grape varieties (Vitis vinifera L. cv Gamay noir and Pinot noir). British Columbia Wine Growers Council (BCWGC) Oenology and Viticulture Conference. Penticton Trade & Convention Centre, Penticton, BC, Canada. 15-16th July 2019.
- Kemp, B., Pickering, H., Small-Kelly, S., Blake, A., Bowen, A., Inglis, D. & Pickering, G. (2019). Improving sparkling and still red wine quality: Honey, sweet off-flavour from sour rot. British Columbia Wine Growers Council (BCWGC) Oenology and Viticulture Conference. Penticton Trade & Convention Centre, Penticton, BC, Canada. 15-16th July 2019.
- Kemp, B., McCurdy, M., Plante, J. and Inglis D. (2019). Nitrogen and its role in the kinetics of secondary fermentation. WineGB Winemaking Technical Conference 2019. Denbies Wine Estate, Surrey, England. 24th June 2019.
- Kemp, B. (2019). Application of chemistry in winemaking. Atlantic Canada Chemistry Conference (ChemCon), Acadia University, Wolfville, Nova Scotia, Canada. 24-26th May 2019.
- Kemp, B. (2019). Cool climate red winemaking: Phenolics, green and fruity flavours. Michigan State-wide P45 Grape Spring Kickoff. Northwest Michigan Horticultural Research Center, Traverse City, Michigan, USA. 26th April 2019.
- Kerslake, F., Kemp, B., A., Shakya, S. and Damberg, R. (2019). The Progression of Sparkling Grape Pressing And What Comes Out When? Australian Wine Industry Technical Conference (AWITC). Adelaide Convention Centre, Adelaide, South Australia. 21st-24th July 2019.
- Lowry, T., Urbez Torres, JR., Dieter, K., Poojari, S. 2019. Field strategies to reduce the impact of grapevine viruses. The 19th Bi-annual Oenology & Viticulture Conference, Penticton, BC Canada. July 17-18, 2019.
- Pickering, G., Pickering, H., Small-Kelly, S., Blake, A., Bowen, A., Inglis, D., & Kemp, B. (2019). Detection and consumer rejection thresholds of honey off-flavour in sparkling wine. Australian Wine Industry Technical Conference (AWITC). Adelaide Convention Centre, Adelaide, South Australia. 21st-24th July 2019.
- Pickering, G. and Ruzgys, S. (2019). Frankfurter or Frankenfood? Understanding and optimizing consumer acceptance of 'clean' meat. Sustainability Research Center Seminar Series, University of the Sunshine Coast, Sippy Downs, Australia.
- Poojari, S. 2019. Grapevine virus sampling 101. Ontario Craft Wine Conference & Trade Show. Toronto. 1st May 2019.
- Poojari, S. Importance of virus diagnostics and grapevine leaf and cane sample collection for virus testing. The 19th Bi-annual Oenology & Viticulture Conference, Penticton, BC Canada. July 17-18, 2019.
- Poojari, S., Wang, T., Abdallah, M., McFadden Smith, W., Inglis, D., Urbez Torres, JR. 2019. Advancements in Diagnostics of Grapevine Virus Diseases. The 19th Bi-annual Oenology & Viticulture Conference, Penticton, BC Canada. July 17-18, 2019.
- Reynolds AG. 2019. Vineyard/water management strategies for irrigated and non-irrigated vineyards in coastal climates. I. Viticultural considerations. Wine Island Growers Association Meeting, 14-16 May 2019, Duncan, BC.
- Reynolds AG. 2019. Vineyard/water management strategies for irrigated and non-irrigated vineyards in coastal climates. II. Fruit composition and winemaking considerations. Wine Island Growers Association Meeting, 14-16 May 2019, Duncan, BC.
- Reynolds AG, Dorin B, Lee H-S, Shemrock A, Brown RB, Jollineau M. 2019. Utilization of remote sensing technology to detect Riesling vineyard variability. 21st GIESCO Congress, June 24-28 2019, Thessaloniki, Greece.
- Reynolds AG. 2019. What Nelson Shaulis taught us. Nelson Shaulis Symposium: Digital Viticulture: New Tools for Precision Management. July 16-18 2019, Geneva, NY.
- Reynolds AG, Dorin B, Lee H-S, Shemrock A, Brown RB, Jollineau M. 2019. Utilization of remote sensing technology to detect Riesling vineyard variability. Proc. 21st GIESCO Congress, Thessaloniki, Greece, pp. 585-593.
- Thibodeau, M., Mitchell, J., Castura, J., Pickering, H., Pickering, G. (2019). Consumer Perception of Beer: The Role of Individual Differences. Canadian Food Summit, Halifax, Canada
- Wang J, Aubie E, Lan Y, Crombleholme M, Reynolds AG. 2019. The impacts of frozen material-other-than-grapes (MOC) on aroma compounds of red wine varieties. Proc. 21st GIESCO Congress, June 24-28 2019, Thessaloniki, Greece.
- Wang J, Aubie E, Lan Y, Crombleholme M, Reynolds AG. 2019. The impacts of frozen material-other-than-grapes (MOC) on aroma compounds of red wine varieties. Oenopia, May 21-23, Vicenza, Italy.
- Wang J, Aubie E, Lan Y, Crombleholme M, Reynolds AG. 2019. The impacts of frozen material-other-than-grapes (MOC) on aroma compounds of red wine varieties. Proc. 21st GIESCO Congress, Thessaloniki, Greece, pp. 948-949.