



Cool
Climate
Oenology &
Viticulture
Institute

Brock University

25

CELEBRATING
25 YEARS

Cool Climate Oenology and Viticulture Institute

2020-21 YEAR IN REVIEW

MESSAGE FROM THE DIRECTOR

When we look back at the past 25 years, it is remarkable to see how far our cool climate grape and wine industry has come. Our industry's success is owed, in large part, to meaningful teamwork and collaboration. Whether it is through leading-edge research activities, outreach programs for knowledge mobilization, community engagement initiatives or professional development opportunities, we are honoured that our valued partners have continued to trust us to provide innovative solutions and approaches to industry priorities.

This past fiscal year, the COVID-19 pandemic continued to present challenges to the way that we conduct research, teach, serve our clients and engage with our community. However, we remained nimble and were able to adapt our processes to safely continue the important work we do for our industry and community on a local, national and international level.

Some of our current research projects include the use of a portable, sensor-based Hyperspectral Imaging System (SHIMS) for early detection of grapevine viruses; the use of Canadian indigenous yeast isolates to improve sparkling and still wine quality; the development of micro-shoot tip tissue culture-based protocols for maintaining virus-free grapevine germplasm; improving freeze tolerance and identifying pathway markers of cold hardiness of *Vitis* under a changing climate; and managing tannins in red wine production.

Our industry outreach programs also continue to be in high demand, with more than 4,155 industry and community members participating in our programs this past year. The Grapevine Virus Testing Lab completed more than 15,000 virus tests for clients and research purposes, while the Analytical Services department processed more than 1,100 work orders. CCOVI's commitment to community engagement also remained an important priority, with more than 3,000 individuals participating in our community engagement activities this past fiscal year. As we were unable to host any in-person workshops, seminars or conferences due to the pandemic, CCOVI instead launched a series of interactive online tasting events, the inaugural Cuvée Online Experience and a virtual CCOVI Lecture Series.



The Institute also prioritized its commitment to local communities and donated nearly 5,000 litres of wine to Dillon's Small Batch Distillers. In collaboration with industry partners, that wine was transformed into approximately 1,000 bottles of hand sanitizer for the community — at a time when the much-needed item was in short supply.

Our high-quality continuing education offerings also evolved this year to meet ever-changing demands in both course content and delivery methods. CCOVI increased the breadth of its online continuing education opportunities in wine, spirits, cider and perry production, including the launch of a new Foundations in Winemaking course, which sold out its first offering.

CCOVI's success over the past 25 years is a result of all the work we have done together, as an industry, to pave the way for a sustainable future. When we look ahead to future priorities — such as mitigating the impact of climate change and the development of a clean plant program for grapevines — we know there is nothing we cannot accomplish when we continue to work together.

Cheers to another 25 years!

Best regards,

Debbie Inglis



INSIDE

2020–21 **SNAPSHOT**



2.19 million
in research funding



4,155
participants in CCOVI programs or services



333
continuing education students



25,290
buds sampled for CCOVI's VineAlert program



15,064
grapevine virus tests



1,121
work orders processed by Analytical Services



11,550 **Lifetime YouTube**
views to CCOVI Lecture Series Videos



2,205
Twitter followers



1,293
Instagram followers



517
Facebook followers

ABOUT CCOVI

CELEBRATING 25 YEARS

Brock University's Cool Climate Oenology and Viticulture Institute (CCOVI) was founded in partnership with industry in October of 1996 and continues with those partnerships today through the Grape Growers of Ontario, the Ontario Craft Wineries and Wine Growers Ontario.

The affiliated Oenology and Viticulture program at Brock University welcomed its first group of undergraduate students in September 1997, followed by CCOVI launching its first Continuing Education courses the following fall. The CCOVI Advisory Council was also formed that year, holding its first meeting in December 1998. In June 1999, CCOVI officially opened the doors to its very own building — Inniskillin Hall — followed by the opening of its Canadian Wine Library the following September. CCOVI began holding national industry outreach events and rapidly expanded its research activities in the years that followed, eventually expanding its mandate to include the entire grape and wine value chain in 2008. Since then, CCOVI has grown to become an internationally recognized research institute that is dedicated to supporting the growth of the Canadian grape and wine industry and advancing cool climate winemaking globally. CCOVI's research, education and outreach activities continue to be based on three vital pillars: quality, innovation and sustainability.

CCOVI's partnerships extend to other academic communities, federal and provincial government research organizations and regional grape and wine industry groups across Canada as well as in other cool climate wine regions. For 25 years, the continued support from industry partners has been critical to the growth and development of the institute. That continued investment in CCOVI's industry-driven activities has yielded an economic return of more than \$91 million to the provincial economy each year.



CCOVI was founded in partnership in
October 1996.



RESEARCH

As Brock University's flagship multidisciplinary research institute, CCOVI has consistently demonstrated the power of partnership between industry and academia to achieve common objectives.

As the institute evolves, CCOVI continues to expand its research focus beyond the disciplines of oenology and viticulture to all aspects of the grape and wine value chain. CCOVI's research initiatives are focused on the priorities that have been identified by the industry itself, responding to industry challenges by developing innovative solutions, identifying new growth opportunities, and accelerating the commercialization of globally competitive products and services.

CCOVI secured a \$6.2-million multi-partner funding commitment, known as the CLEAn pLAnt extractionN SEquencing Diagnostics (CLEANSED) initiative, from Genome Canada. CCOVI's use of High-Throughput Sequencing technology, with improved sensitivity to simultaneously detect multiple viruses in a grapevine, will replace more than 30 tests currently being performed on grapevines to look for diseases. As the Canadian Grapevine Certification Network's national testing provider, the Institute's research in this area also provides nurseries with a head start in providing domestically certified clean plant material to Canadian growers. CCOVI is also developing a sensor-based Hyperspectral Imaging System (SHIMS) for early detection of grapevine viruses to further help growers improve the health of their vineyards.

Research into the use of Canadian indigenous yeast isolates to improve sparkling and still wine quality will help the industry to develop wines that have a signature style and improve competitiveness in the marketplace, while the management of tannins in red wine production will help the industry to consistently create rich and robust Ontario red wines. Current viticulture-focused research projects include the development of micro-shoot tip tissue culture-based protocols for maintaining virus-free grapevine germplasm as well as research seeking to improve grapevine freeze tolerance and cold hardiness in response to a changing climate.



In the augmented reality, virtual reality and sensory reality wine consumer lab (known as the R3CL), CCOVI researchers are investigating the nuances behind consumer choice, utilizing innovative technologies and simulations to determine why consumers buy the wine they do and how the industry can use that data to increase market share.



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initiative, from Genome Canada.



CCOVI's research continues to take an innovative approach to research projects that will help improve the quality, sustainability and growth of the Canadian grape and wine industry. The recruitment and training of highly qualified personnel to work on these industry-relevant projects trains the next generation of skilled labourers. Their involvement in conferences and publications further extends research findings to the international academic community.

CCOVI's 2020-21 research projects are:

- CLEAn pLAnt extractionN SEquencing Diagnostics (CLEANSED) for Clean Grapevines in Canada
- Field evaluation of a weather-based model for timing fungicide treatments for grapevine fungal diseases
- Spotted lanternfly monitoring and risk assessment
- Fine tuning PCR detection and quantification of Spotted Wing Drosophila in field samples and evaluating fruit susceptibility
- Characterisation and implications of the thermal tasting phenotype
- Investigating the impact of sugar type and nitrogen source on Maillard-associated flavour in sparkling wines
- Pathway markers of cold hardiness in Merlot, Cabernet Franc and Cabernet Sauvignon, enhanced by treatment with an Absciscic Acid Analog
- Development of micro-shoot tip tissue culture-based protocols for maintaining virus-free grapevine germplasm for elite and local varieties
- Detection and characterization of virus and virus-like agents infecting cannabis
- Early detection of grapevine viruses in young and asymptomatic grapevines using portable, Sensor-based Hyperspectral Imaging System (SHIMS)
- Improving sparkling and still wine quality; preventing high volatile acidity, honey-off flavour and other faults that reduce wine quality through natural Canadian indigenous yeast isolates
- Improving freeze tolerance of Vitis under a changing climate
- 100% Ontario wines from Vidal and Marquette: Quality improvements and Consumer preference
- TanninAlert: Improving Ontario red wine quality and consumer acceptance through winemaking techniques by grape variety and tannin level
- Isolation of natural yeasts from commercial wine fermentations

PUBLICATIONS

As an industry-driven research institute, CCOVI is committed to ensuring that research is shared both academically and with local, national and international stakeholders. The Institute's work is shared through the publication and dissemination of research through both proactive and reactive media relations.

Research is communicated formally through published books, book chapters and journal articles, as well as through conference proceedings worldwide. As part of CCOVI's outreach activities, researchers also share their work through participation at industry meetings, webinars, events and in media interviews.

During the 2020/21-year, Brock-affiliated CCOVI researchers published 27 academic publications on a wide range of wine-related topics. In addition to the research presented as part of the 2021 CCOVI Lecture Series at Brock University, CCOVI researchers also presented their findings at 30 virtual conferences, lectures and special presentations around the world.

To further raise the institute's profile and continue knowledge transfer, CCOVI issued 7 media releases and was featured in 105 print media and broadcast news stories that highlighted the institute's research and activities.

CCOVI has also continued to utilize social media as a channel of communication and knowledge mobilization for the grape and wine industry and broader community. CCOVI increased the total number of followers on its Instagram, Facebook and Twitter accounts to more than 4,000 people, showcasing CCOVI's commitment to increasing its reach and connecting with industry and community members across a range of platforms, year after year.

TRAINING OF HIGHLY QUALIFIED PERSONNEL

Highly qualified personnel working in CCOVI play an important role in advancing the progress of the Institute's research work. CCOVI Researchers, Scientists and Fellows lead dynamic teams and lab groups that they mentor, train and develop.

The high calibre of talent in these teams is validated by the external recognition they have received this fiscal year, including the Ruth Binnie Fellowship from the Canadian Federation of University Women, as well as awards from the American Society of Enology and Viticulture National and Eastern Sections (such as the ASEV Presidents' Award for Scholarship in Viticulture and Best Student Viticulture Poster). Students also represented the Institute at ASEV's annual conferences.

The Institute was also represented by its highly qualified personnel at several virtual academic presentations, such as the Ontario Fruit and Vegetable Convention, Macrowine 2021, CiderCon 2021, and virtual academic series such as Perennia's From Grapes to Wines: Cool Climate' webinar series and the Canadian Grapevine Certification Network Webinar Series.

Publications by the numbers

 **30** presentations

 **27** publications

 **105** news articles

 **7** media releases



Highly qualified personnel by the numbers

3 post-doctoral fellows

7 PhD students

15 master's students

12 undergraduate students

7 research assistants

GRANTS AND FUNDING

In 2020/21, CCOVI's innovative ideas led to the Institute securing funding that will keep it at the forefront of developments in cool climate grape and wine research. Brock researchers associated with CCOVI received \$2,191,090 in government and industry support in 2020/21.

Of that total: \$1,399,374 came from government funding with industry partners and \$52,000 came from government directly, while industry partners directly contributed \$505,794 in cash and \$233,992 in in-kind funding, further demonstrating CCOVI's commitment to the development of research solutions that support the growth and sustainability of the industry.

Over the past five years, the institute has received more than \$9 million in government and industry support.



Funding source	2020-21	2019-20	2018-19	2016-17	2015-16
Government funding with industry partners	\$1,399,374	\$1,307,961	\$665,419	\$2,136,198	\$407,102
Funding directly from industry partners	\$505,794	\$590,797	\$335,659	\$320,700	\$432,560
Government funding without industry partners	\$52,000	\$117,500	\$151,500	\$62,870	\$85,610
Total	\$1,957,168	\$2,016,258	\$1,152,578	\$2,519,768	\$925,272
In-kind from partners	\$233,992	\$252,248	\$175,658	\$441,561	

AFFILIATED INSTITUTES AND INTERNATIONAL PARTNERS

As an industry leader in cool climate wine research, CCOVI has research partners both at home and abroad. The Institute's researchers further establish and develop new opportunities through the professional organizations they belong to.

CCOVI leads provincial grape and wine initiatives and works closely with national partners to address Canada's national priorities. This work takes a coast-to-coast approach, linking research and researchers from Atlantic Canada, Quebec, Ontario and British Columbia. As part of this national approach, CCOVI has formal memorandums of understanding to work co-operatively with Agriculture and Agri-Food Canada (AAFC), the Canadian Food Inspection Agency (CFIA) and the Canadian Grapevine Certification

Network (CGCN) to advance Canada's grape and wine sector. These networks use knowledge and technology transfer of research outputs to help strengthen the \$9-billion economic impact of the sector nationally.

CCOVI Researchers, Scientists and Fellows are active members of respected professional networks, such as the American Society of Enology and Viticulture, the Academy of Wine Business Research and the American Association of Wine Economists. These networks help researchers raise the profile of both the Institute and their work in international academic circles while making and maintaining connections for future research partnerships.



INTERNATIONAL COOL CLIMATE WINE SYMPOSIUM

CANADA · 2022

CCOVI's profile and strong relationships with stakeholder groups nationwide helped secure Canada's first-ever bid to host the International Cool Climate Wine Symposium (ICCWS).

Leading researchers, winemakers and grape growers from around the world were set to gather at Brock University in the summer of 2021 for the 10th instalment of the symposium. Due to the continued uncertainty and risk to health and safety from COVID-19, however, the decision was made to further postpone the conference to July 17 to 21, 2022.

Ensuring the vitality of cool climate winemaking and grape growing in the face of changing climatic conditions will remain the focus of the symposium, and organizers look forward to bringing engaging and innovative programming to an international audience when it is safe to gather in person again.

Conference delegates will participate in stimulating conference sessions as well as pre- and post-conference programming that will showcase Canada's wine regions from coast to coast. The full conference program can be viewed at iccws2022.ca/program

CCOVI is collaborating with local and national stakeholders to showcase Canada's outstanding wine industry to the world. The keynote speaker for the symposium will be Laura Catena, who is a Harvard and Stanford trained physician, author, and the founder and Managing Director of the Catena Institute of Wine in Argentina.

To highlight Canadian cool climate Chardonnay during the conference, 12 Niagara winemakers have used grapes from two specific vineyards to produce their own unique, one-of-a-kind Chardonnays. The Great Chardo Swap involves six winemakers from east of the Welland Canal making wine from 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. All the wines will be part of a grand tasting at ICCWS, and attendees will have the chance to discuss the decisions made by the winemakers at each stage of the process.

Learn more at [ICCWS2022.ca](https://iccws2022.ca)



INDUSTRY OUTREACH

CCOVI plays a critical role in the growth and sustainability of Canada's grape and wine industry through its innovative outreach programs. This includes services that help growers and winemakers make informed decisions in their operations, as well as workshops, seminars and conferences that focus on knowledge mobilization and technology transfer.

In 2020-21, more than 1,000 industry professionals took part in or utilized CCOVI's outreach programs and services, and even more took advantage of the Institute's online resources. In early 2021, CCOVI quickly adapted to the challenges of COVID-19 by developing online programming and mitigation strategies for reopening to reduce the impact on services offered to the industry. As a result, CCOVI was able to continue operating its critical support programs and capitalize on new opportunities. Through close collaboration with the industry, CCOVI continues to develop and adapt its programs and services to meet the changing needs of that industry.



Industry members' participation in CCOVI outreach activities

Outreach activity	2010-21	2019-20	2018-19	2017-18	2016-17
Workshops and seminars	426	857	472	492	713
Conferences	n/a*	350	350	350	350
Outreach services	650	636	572	510	505
Total participants	1,076	1,843	1,394	1,352	1,568

*Due to COVID-19 restrictions around the world, CCOVI was unable to host any in-person conferences this fiscal year.

ANALYTICAL SERVICES

CCOVI's Analytical Services lab is a full-service facility that offers a wide range of standard analytical services to the grape and wine, cider, beer and distillery industries. The juice, wine and alcoholic beverage analysis lab fills a void in available services in Canada and provides clients with timely service at competitive rates. The services offered by the lab continue to expand year over year and are continually evolving to serve the needs of its growing client base across the industry.

CCOVI also conducts research projects for clients, utilizing the Institute's expertise to help analyze client data and assist in project design in a confidential environment.

Along with providing support to CCOVI researchers, the department also acts as the third-party dispute resolution facility for grape analysis at harvest on behalf of the Grape Growers of Ontario.



Analytical Services by the numbers

Harvest season	2020-21	2019-20	2018-19	2017-18	2016-17
Number of work orders	1,121	976	941	835	751
Number of customers	140	136	128	110	134

PREHARVEST MONITORING PROGRAM

Since 2010, CCOVI's Preharvest Monitoring has been tracking the progress of Niagara's wine grape harvest. Using data obtained at four sites per variety across the Niagara peninsula, the program tracks key fruit ripeness indicators for Chardonnay, Riesling, Pinot noir, Cabernet sauvignon and Cabernet franc. This data is made readily available to the industry through an interactive online database (ccovi.ca/preharvest) that allows users to compare varieties and vintages at different sites across the region. This allows users to put the data into context by comparing current numbers to previous harvests to make informed vineyard management decisions.

During the 2020 harvest, the database received 990 page views with people in 16 countries checking in to see how Niagara's harvest was progressing.

Preharvest monitoring	2019-20	2019-20	2018-17	2017-16	2016-15
Database page views	990	1,313	1,120	2,273	1,945
Number of countries	16	12	27	14	17



VINEALERT

VineAlert is one of the Institute’s flagship outreach programs and operates in collaboration with the Grape Growers of Ontario and Ontario Grape and Wine Research Inc.

It tracks the cold hardiness of grapevines throughout the dormant period in the province’s three designated growing regions: the Niagara Peninsula, Lake Erie North Shore and Prince Edward County. That data is then used as an early warning system that alerts growers to turn on wind machines or take other precautionary measures to mitigate potential damage from extreme weather events.

The alert system has 487 subscribers that generated more than 8,000 page views of the program’s data in 2020-21. In addition to assisting Ontario growers, the online cold hardiness database (ccovi.ca/vine-alert) has been of interest to researchers and growers around the world, with users in 32 countries looking at VineAlert’s data.

Launched in 2010, VineAlert was selected by the Council of Ontario University’s Research Matters campaign in 2016 as one of 50 ‘game-changing’ research partnerships between industry and universities. This recognition, and the overall success of the VineAlert program, illustrates how CCOVI’s strong industry partnerships advance research and innovation while simultaneously overcoming challenges identified by the industry.

VineAlert statistics

Winter	2019-20	2019-20	2018-17	2017-16	2016-15
Database page views	8,058	7,637	11,270	11,963	11,077
VineAlert subscribers	487	472	444	400	371
Number of countries	32	32	36	33	61

VineAlert by the numbers

487
subscribers

8,058
database page views

25,290
buds tested for VineAlert
during the winter of 2020-21

GRAPEVINE VIRUS TESTING

Grapevines are susceptible to many virus and virus-like agents that can negatively impact the health and quality of a grapevine and its products. Detection is the first step in the management of grapevine virus diseases.

CCOVI offers highly sensitive and accurate molecular virus diagnostics through its virus testing services to help manage the health status of grapevines. CCOVI operates the national testing platform for the Canadian grape and wine cluster program funded through Agriculture and Agri-Food Canada’s Canadian Agricultural Partnership program administered through CGCN. In 2020/21, more than 15,000 grapevine virus tests were performed at CCOVI.

Our ongoing research and testing assist in the management of these diseases through dissemination of science-based knowledge, innovation and collaborations to serve the Canadian grape and wine industry.

Virus testing statistics

Grapevine virus testing	2019-20	2018-19	2018-19
Number of samples	7,448	7,731	8,090
Number of virus tests	15,064	22,224	27,111
Number of clients	23	28	29



OUTREACH EVENTS

CCOVI’s workshops, conferences and lectures facilitate knowledge translation and technology transfer by connecting industry partners to experts who speak about timely and relevant topics.

Due to ongoing COVID restrictions, CCOVI was unable to host in-person workshops, conferences, lectures or other large events. CCOVI continually innovated its programming over the past year, however, to facilitate valuable knowledge translation opportunities and new partnerships and initiatives to support the industry in engaging new ways.



TECHNICAL WEBINAR

CCOVI developed a technical webinar with Scott Labs Canada and the Institut Oenologique de Champagne in 2021/22. The webinar, titled “Solutions & products to help prevent lightstruck in sparkling wines,” featured international expert Bertrand Robillard, R&D manager at Institut Oenologique de Champagne. Winemakers across the country could either view it live or at a later date on the CCOVI website as it fit within their schedule. More than 60 people tuned in to the webinar when it was first released. Making it available for free online will also allow industry members to access the content, as needed, in the future.

The webinar showcased CCOVI’s commitment to executing an online delivery method to meet needs of the industry at a time when workshops could not be held in-person due to the pandemic. Feedback from the industry demonstrated that offering CCOVI’s trusted resources in an online format was especially important during this challenging time. While CCOVI will return to hosting in person events when it is safe to do so, it will also continue to offer educational resources in formats that allow the greatest number of industry members to utilize them in a way that is most convenient to them going forward.



CCOVI LECTURE SERIES

The 2021 CCOVI Lecture Series ran from January to April and featured 10 lectures presented by CCOVI Researchers, Scientists, Fellows, Professional Affiliates and their collaborators. Topics spanned the entire grape and wine value chain including lectures on advances in grapevine certification standards, cold hardiness research, consumer insights on Ontario sparkling wine and other local wines, sustainable management of leafhopper pests of grapevines and augmented reality marketing in the wine industry

Due to the ongoing COVID-19 pandemic, the CCOVI Lecture Series was held in a solely virtual format for the first time. Despite the inability to host the lectures in-person, 363 people from around the world still tuned in to watch the lectures live online — more than double the total attendance of the previous year.

Archived lecture series videos from previous years also continued to remain popular online, receiving 1,142 views in 2020 from people around the world.

More than **2,500 people** have tuned in to watch the presentations in the **CCOVI Lecture Series live** (online or in-person) over the past 10 years, and more than **11,000** have watched the archived videos on YouTube.

Lecture Series views	2020	2019	2018	2017	2016
Videos watched	1,142	1,088	1,369	1,124	1,245

COMMUNITY ENGAGEMENT

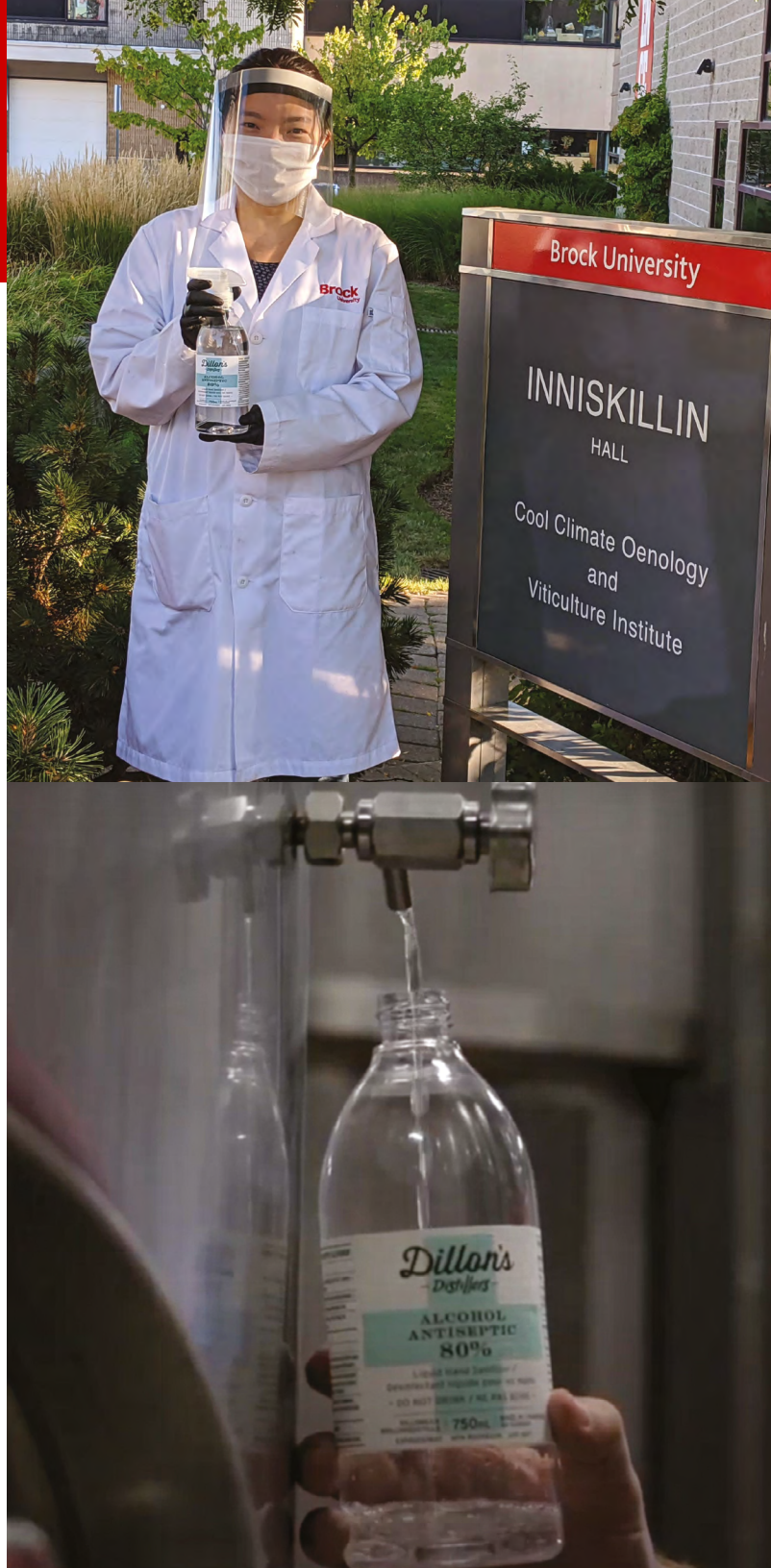
CCOVI'S PANDEMIC RESPONSE

CCOVI contributed to Niagara's pandemic efforts through a partnership with Dillon's Small Batch Distillers. The Institute donated nearly 5,000 litres of wine to the Beamsville-based distiller, which transformed it into approximately 1,000 bottles of hand sanitizer. The Health Canada-approved product was donated to frontline workers at the onset of the pandemic and, later, to the broader community during a time of urgent need.

Dillon's has been a client of CCOVI's Analytical Services since 2012, and the initiative allowed CCOVI to work collaboratively alongside the distillery, and other industry partners, on an innovative solution for helping the local community in a time of need. Every year, CCOVI must discard the wine from completed staff and student research projects to make room in the cellar for new bottles. That research wine is purged and safely disposed of through a waste management program. Partnering with Dillon's allowed CCOVI to give this wine a second life, contributing positively to its sustainability goals while helping the community in the process.



5,000 litres of wine turned into
**1,000 BOTTLES OF
SANITIZER**



CCOVI's community engagement activities aim to raise the profile of the Institute in the community and increase the presence of wine education opportunities at local wine events.

In 2020/21, the Institute's community engagement activities reached 3,079 people in innovative new virtual experiences. While the Institute could not bring the community together in-person, it was able to continue offering engaging and educational opportunities to learn more about the grape and wine industry and make new connections with industry professionals and wine-and-spirits enthusiasts. CCOVI once again worked closely with the Niagara Wine Festival this past fiscal year, as well as offering new online tasting experiences and the first-ever Cuvée Online Experience.

CCOVI's annual Cuvée Grand Tasting, which draws hundreds of guests from across the province every year, was unfortunately postponed this year due to the COVID-19 pandemic. Although the event was not able to be held in-person, as it usually is in April, the Cuvée 2020 Online Experience was developed to virtually connect with the community and industry. The innovative digital platform launched on May 1 and attracted 2,901 online visitors and generated 6,356 online pageviews in the 2020/21 fiscal year. The winemakers' favourite videos, which were developed in partnership with winemakers from across Ontario, were viewed more than 1,400 times in 2020/21.



Total number of participating individuals

2020-21	2019-20	2018-19	2017-18	2016-17
3,079	1,656	1,256	1,211	1,112

* The 2020/21 total includes visitors to the 2020 Cuvée Online Experience that launched on May 1 in place of the in-person 2020 Cuvée Grand Tasting gala in April.

NIAGARA GRAPE & WINE FESTIVAL

While it may have looked a little different than in the past, the 2020 vintage of the Niagara Grape & Wine Festival still provided wine lovers with an engaging and safe way to experience the Festival's most popular events and activities.

CCOVI was unfortunately unable to come together with the grape and wine community for its highly popular Educate Your Senses sessions at Montebello Park as in the past. To continue its long-standing partnership with the festival (which has been in place since 1997), CCOVI worked with several of its Oenology and Viticulture alumni to develop engaging videos that welcomed guests to the festival and showcased the thrill of the harvest season. The videos were broadcast live as part of the festival's online Centre Stage Saturdays concert. More than 60 people viewed the welcome videos in the last fiscal year alone. The videos are also available on CCOVI's website, showcasing OEVI graduate success stories and the commitment that these alumni have to the grape and wine community.

ONLINE TASTING EXPERIENCES

In a typical year, the Cool Climate Oenology and Research Institute (CCOVI) welcomes thousands of industry professionals and wine enthusiasts to its slate of in-person tastings, conferences, workshops and other special presentations.

When the pandemic hit, however, CCOVI explored new ways of staying connected in a virtual capacity, including the launch of a series of virtual tasting experiences. More than 100 guests attended CCOVI's first three tastings, which featured industry partners from Niagara-based wineries.

The events allowed wine professionals and wine lovers alike to come together virtually while learning more about local wine in a new and exciting way. The Institute hosted these events for Brock University's alumni association and the general public, as well as organizing a tasting for a private corporate group. The events were so popular that CCOVI is already planning for additional offerings in the future as it continues to expand its reach and connect with people across the country.

CORKSCREWED TV

CCOVI continued its commitment to serve as the education partner for the television show CorkScrewed, a series filmed on location throughout the Niagara wine region and at Brock University and predominantly featuring CCOVI Scientists and Researchers. The series was 13 episodes long and originally aired on Bell Fibe TV. This past year, the show was launched to a new audience when the series' production company expanded its distribution to millions of DirecTV viewers in the United States. CorkScrewedTV can be viewed in Canada on Bell's FibeTV1, in New Zealand on CountryTV, in the U.S. on DirecTV premium channel 104 and on YouTube. The online series received thousands of views on YouTube as well as positive feedback from the grape and wine industry. An even further expanded distribution on more channels will be confirmed and announced soon, and the team is also working with new broadcast partners to secure another round of episodes when it is safe to do so.





Cuvée 2020

AN ONLINE EXPERIENCE

Celebrate Excellence in Ontario Winemaking

Beginning May 22

CUVÉE GRAND TASTING

Every year, CCOVI hosts thousands of guests at the Scotiabank Convention Centre for the Cuvée Grand Tasting and throughout the Niagara region for Cuvée en Route.

Cuvée is the largest event of its kind, which showcases a large selection of high-quality Ontario VQA wines and local cuisine while also celebrating the achievements of the grape and wine industry and the cutting-edge research propelling Ontario VQA wine forward.

Due to unprecedented health and safety concerns arising from the COVID-19 pandemic, the Cuvée Grand Tasting and en Route programs were not able to be held in-person for the first time in the event's history. The difficult decision was made to postpone the event, originally scheduled for April, until it could be held safely in the future.

CCOVI worked quickly to pivot its Cuvée program to a fun, virtual experience that launched in May of 2020, so that wine lovers and industry members could still come together in celebration of excellence in the Ontario VQA wine industry. The online platform was developed to bring the Grand Tasting and Après Cuvée structure right into guests' homes, connecting them to the excitement of Cuvée through unique video content created just for the online experience. Participating

winemakers virtually poured and revealed the wines they selected as their favourites for Cuvée 2020. Hyperlinks to each participating winery allowed guests to shop more than 100 VQA wines and purchase them online. Après Cuvée also featured a show-from-home performance by Cuvée's headline band. The experience brought the community together and helped support the wineries, breweries and restaurants that were directly impacted by the pandemic, both financially and otherwise. The Cuvée Online Experience also received a \$11,180 grant from the provincial government's Celebrate Ontario program. Due to the pandemic, the grant supported festival and event organizers in 2020 with rescheduled, postponed or reprogrammed events. Cuvée gained its support due to its ability to quickly pivot and provide both a unique experience for its guests as well as a platform to showcase and support the grape and wine industry.

To date, more than \$116,000 has been generated through the Cuvée Legacy Fund. The fund provides scholarships for the next generation of winemakers and grape growers in Brock University's Oenology and Viticulture program and critical research dollars for industry-driven priorities.

The
Cuvée Legacy Fund
has generated
MORE THAN
\$116,000
over the past six years

CUVÉE AWARDS

Celebrating the talent and accomplishments of Ontario grape growers and wine makers has always been an important element of the Cuvée Grand Tasting. As the event was not able to be held in person this year, CCOVI made the decision to postpone the presentation of the industry awards until it is safe to gather in person at the next Cuvée.

CUVÉE 2020 ONLINE EXPERIENCE



48

Participating
wineries



12

Culinary
partners



1,428

Video
views



6,356

Page views



2,901

Online visitors



CUVÉE LEGACY FUND SCHOLARSHIPS

Cuvée Graduate Scholarship (\$5,000): **Jessica Oppenlaender**

EDUCATION

OENOLOGY AND VITICULTURE DEGREE PROGRAM

With CCOVI's resources, Brock is uniquely positioned in Canada to offer undergraduate, graduate and certificate programs in Oenology and Viticulture (OEVI). Although CCOVI does not administer the degree programs, the Institute has close ties to how they operate. CCOVI also offers education sessions and volunteer opportunities to students and supports alumni with professional development after graduation.

For the 2020/21 academic year, there were 43 students studying at the undergraduate level. Of those students, 35 were registered in the Honours BSc degree program while eight were taking the Certificate in Grape and Wine Technology.

At the graduate level, CCOVI Researchers, Scientists and Fellows train students in the fields of oenology and viticulture, wine business, and geography. During this period, there were 14 students pursuing master's degrees and six students pursuing their PhD in grape and wine-related fields.



For the 2020-21 academic year,

43 students

are studying at the undergraduate level

35

are in the Honours
BSc degree program

8

are taking the Certificate in
Grape and Wine Technology



The Oenology and Viticulture program welcomed its first cohort of students in 1997. More than 200 students have graduated from the program to date.

Continuing Education courses

	2020-21	2019-20	2018-19	2017-18	2016-17
Number of courses	14	14	9	9	10
Number of students	333	237	282	244	244

CONTINUING EDUCATION

CCOVI provides education opportunities for wine enthusiasts as well as professional development courses for the industry. In 2020/21, CCOVI offered 14 courses that instructed 333 students.

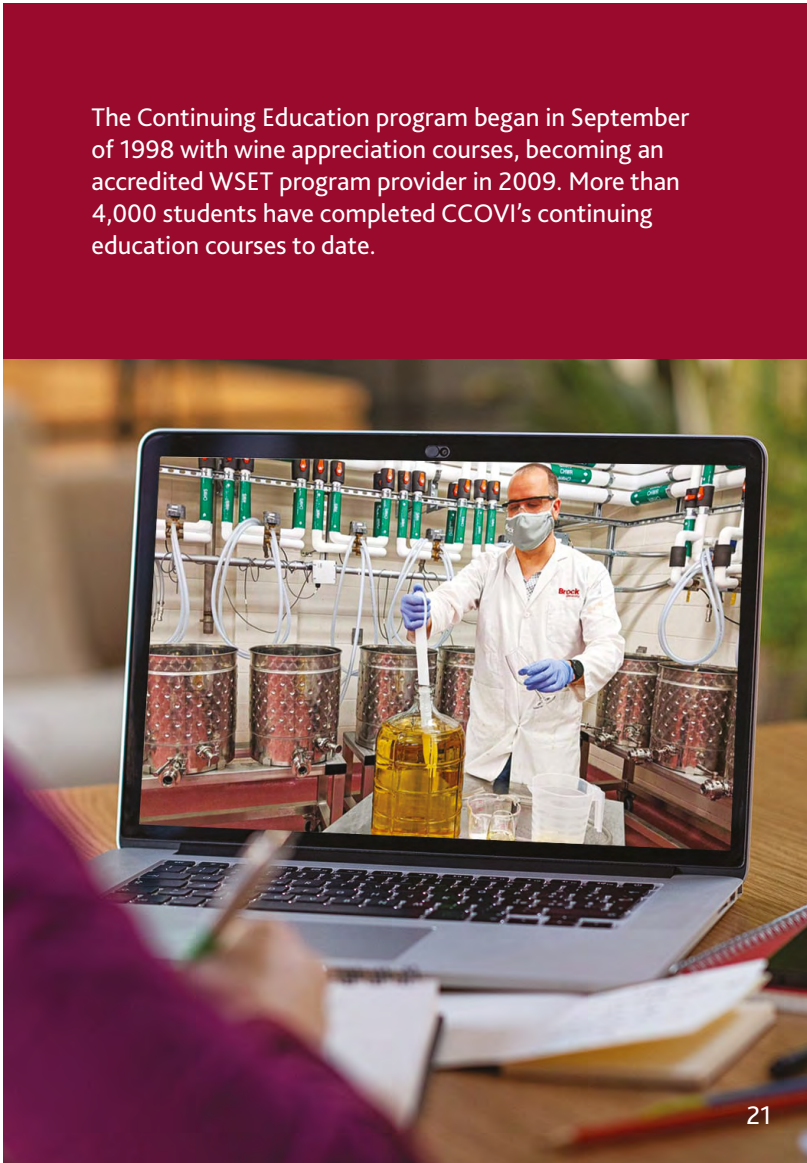
As a program provider for the Wine & Spirit Education Trust (WSET) program, a highly respected and internationally transferable wine certification, the continuing education program attracts students from around the world to take part in sessions offered both in class and online. As the COVID-19 pandemic continued to delay the ability to host in-person learning, CCOVI worked closely with the WSET to provide online offerings for its students to be able to access its range of popular wine and spirits courses. In fact, CCOVI's online WSET offerings saw double the enrolment of years past, with at least one course seeing six times the number of students register as compared to an average enrolment. CCOVI was also able to provide examinations through Remote Invigilation (RI) technology this year, enabling candidates to safely sit their exam on a computer from their home.

CCOVI's Certificate in Ontario Wine, the wine industry's first integrated online program specific to Ontario wine, also continued to grow. The course has been offered more than a dozen times since launching in 2019, with increasing enrolment year-over-year. The course continues to be an important part of CCOVI's continuing education lineup as well as raising awareness about the Ontario wine industry in the process.

In 2020–21, CCOVI's online WSET offerings saw

double the enrolment

as in the past fiscal year



The Continuing Education program began in September of 1998 with wine appreciation courses, becoming an accredited WSET program provider in 2009. More than 4,000 students have completed CCOVI's continuing education courses to date.

As online course delivery options remained in demand due to the COVID-19 pandemic, CCOVI saw continued growth in the uptake for its remote learning opportunities. CCOVI offers its Wine & Spirits Education Trust (WSET) courses, Cider Foundation, and Certification in Ontario Wines in an online format. It also launched its inaugural online Foundation in Winemaking course this year and provided the option for students to complete their WSET exams via remote invigilation.

FOUNDATIONS IN WINEMAKING

As CCOVI continues to expand its educational opportunities to include the entire grape and wine value chain, the Institute launched the new Foundations in Winemaking course in April 2021. The 10-week, purpose-built course is the first standalone course of its kind to offer a foundation in winemaking to people of all experience levels and educational backgrounds. Students learn the entire winemaking process, from receiving grapes to packaging the final wine, and CCOVI also created a specially designed faults kit to enhance student learning outcomes. Videos, live virtual lectures and networking opportunities round out the core course content, giving students the opportunity to experience the best elements of an in-person classroom combined with the flexibility of remote learning.

Due to pandemic restrictions, the course launched in a virtual format for the first two offerings and will expand to offer an in-person model when Brock fully returns to in-person learning. The course fulfills a long-standing need in the industry and has been a popular new addition to CCOVI's continuing education opportunities.



🔗 Students learn the entire winemaking process, from receiving grapes to packaging the final wine, and CCOVI also created a specially designed faults kit to enhance student learning outcomes. 🍷



ONLINE CIDER TRAINING COURSES

As teaching and learning transformed in response to COVID-19, CCOVI transitioned its popular Cider and Perry Production Foundation course to an online format. The Institute worked together with the Cider Institute of North America (CINA) and other program providers to develop the online course, which was offered over a 15-week period for the first time. This new format allowed all CINA's expert fermentation researchers (from Brock, Cornell University, Washington State University and Virginia Tech University) to teach a portion of the course, expanding the learning opportunities available to all students.

The online option also allowed those with less flexibility in their schedules, or the inability to travel to Brock, with the opportunity to take the course. This expanded CCOVI's ability to respond to the industry demand for quality cider and perry training. The initial offering sold out almost immediately, showcasing the institute's ability to respond quickly and effectively to evolving continuing education demands.



CCOVI EXECUTIVE COMMITTEE, OUTREACH COMMITTEE AND ADVISORY COUNCIL

CCOVI EXECUTIVE COMMITTEE

Tim Kenyon	Chair, Vice-President of Research, Brock University
Allan Jackson	Industry representative, CCOVI Advisory Council
Allan Schmidt	Industry representative, Ontario Craft Wineries
Matthias Oppenlaender	Industry representative, Ontario Grape and Wine Research Inc. and the Grape Growers of Ontario
John De Sousa	Wine Growers Ontario
Don Cyr	CCOVI Fellow, Brock University
Debra Inglis	Ex-officio, CCOVI Director

OUTREACH COMMITTEE

Barb Tatarnic	Chair, CCOVI manager of outreach and continuing education
Belinda Kemp	CCOVI oenologist
Jim Willwerth	CCOVI researcher
Sudarsana Poojari	CCOVI virologist
Kevin Ker	CCOVI research associate
Kevin Buis	Industry representative, Grape Growers of Ontario
Jamie Evans	Industry representative, Ontario Craft Wineries
Gerald Klose	Industry representative, Wine Growers Ontario
Daniel Speck	Industry representative, Ontario Craft Wineries
Sue Ann Staff	Industry representative, Ontario Craft Wineries
Colin Stanners	Industry representative from a grape and wine region outside of Niagara
Dan Sullivan	Industry representative from a grape and wine region outside of Niagara
Roger Vail	Industry representative, Wine Growers Ontario
Kevin Watson	Industry representative, Grape Growers of Ontario
Scott Wilkins	Industry representative from a grape and wine region outside of Niagara
Debra Inglis	Ex-officio, CCOVI Director



CCOVI ADVISORY COUNCIL

Allan Jackson	Chair, Industry representative
Allan Schmidt	Industry representative, Ontario Craft Wineries
Len Pennachetti	Industry representative, Ontario Craft Wineries
Ed Madronich	Industry representative, Ontario Craft Wineries
Richard Linley	Industry representative, Ontario Craft Wineries
Klaus Reif	Industry representative, Ontario Craft Wineries
Eleanor Hawthorn	Industry representative, Grape Growers of Ontario and Ontario Grape and Wine Research Inc.
Matthias Oppenlaender	Industry representative, Grape Growers of Ontario and Ontario Grape and Wine Research Inc.
Bill Schenck	Industry representative, Grape Growers of Ontario
Debbie Zimmerman	Industry representative, Grape Growers of Ontario
Erwin Wiens	Industry representative, Grape Growers of Ontario
Aaron Dobbin	Industry representative, Wine Growers Ontario
Del Rollo	Industry representative, Wine Growers Ontario
Doug Hernder	Industry representative, Wine Growers Ontario
John De Sousa	Industry representative, Wine Growers Ontario
Rob Enns	Industry representative, Wine Growers Ontario
Dan Paszkowski	Industry representative, Wine Growers Canada
Tania Humphrey	Industry representative, Vineland Research and Innovation Centre
Eugene Jaworski	Government representative, Agriculture and Agri-Food Canada
George Soleas	Government representative, Liquor Control Board of Ontario
Jen Liptrot	Government representative, Ontario Ministry of Agriculture, Food and Rural Affairs
Laurie Macdonald	Regulatory agency representative, VQA Ontario
Craig Youdale	Education representative, Canadian Food and Wine Institute, Niagara College
Rene Van Acker	Education representative, Dean of the Ontario Agricultural College, University of Guelph
Lynn Wells	Brock Representative, Vice-President, Academic and Provost
Tim Kenyon	Brock representative, Vice President, Research
Gary Pickering	Brock representative, CCOVI Researcher
Don Cyr	Brock representative, CCOVI Fellow
Barb Tatarnic	CCOVI representative, Manager of Outreach and Continuing Education
Debra Inglis	Ex-officio, CCOVI Director

CCOVI RESEARCHERS, SCIENTISTS, FELLOWS AND PROFESSIONAL AFFILIATES

CCOVI RESEARCHERS

Debbie Inglis	CCOVI Director, Associate Professor, Biological Sciences
Gary Pickering	Professor, Biological Sciences
Jim Willwerth	Professor, Biological Sciences

CCOVI FELLOWS

Ralph Brown	Professor, School of Engineering, University of Guelph
Don Cyr	Professor, Goodman School of Business, Brock University
Dirk De Clercq	Professor, Goodman School of Business, Brock University
Vincenzo De Luca	Professor, Biological Sciences, Brock University
Ronald Jackson	Sensory Science, University of Manitoba
Lester Kwong	Associate Professor, Social Sciences, Brock University
Antonia Mantonakis	Associate Professor, Goodman School of Business, Brock University
Baozhong Meng	Associate Professor, Department of Molecular and Cellular Biology, University of Guelph
Annette Nassuth	Associate Professor, Molecular and Cellular Biology, University of Guelph
Michael Ripmeester	Professor, Social Sciences, Brock University
Tony Shaw	Professor, Social Sciences, Brock University
Jeffrey Stuart	Associate Professor, Biological Sciences, Brock University
Narongsak (Tek) Thongpapanl	Professor, Goodman School of Business, Brock University
George van der Merwe	Associate Professor, Molecular and Cellular Biology, University of Guelph
Joachim Scholz	Assistant Professor, Goodman School of Business, Brock University

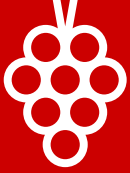
CCOVI SCIENTISTS

Belinda Kemp	Senior Scientist in Oenology
Sudarsana Poojari	Senior Scientist in Grapevine Virology

CCOVI PROFESSIONAL AFFILIATES

Carl Bogdanoff	Viticulturist, AAFC's Summerland Research and Development Centre
Pat Bowen	Viticulture research scientist, AAFC's Summerland Research and Development Centre
Linda Bramble	Wine writer, author and educator
Janet Dorozynski	Global practice lead, Foreign Affairs and International Trade Canada
Kevin Ker	Viticulture consultant
Tom Lowery	Entomology research scientist, AAFC's Summerland Research and Development Centre
Alexandra Mayeski	Lawyer, Mayeski Mathers LLP
Wendy McFadden-Smith	Horticulture IPM Specialist, Ontario Ministry of Agriculture, Food and Rural Affairs
Daniel O'Gorman	Research biologist, AAFC's Summerland Research and Development Centre
Richard Smart	Viticulture consultant
George Soleas	President and CEO, LCBO
Kevin Usher	Oenology research scientist, AAFC's Summerland Research and Development Centre
José Ramón Úrbez-Torres	Research Scientist, Agriculture and Agri-Food Canada, Research and Technology Branch, Summerland Research and Development Centre, Summerland, BC





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