

Battling birds: new research focuses on deterrent methods

As growers tend to their crops preparing them for harvest, something is cutting into, or rather snacking into, their bottom line.

Bird activity at some trial sites results in up to 30 per cent damage in crop size annually, and no vineyard site is immune says CCOVI viticulturist Jim Willwerth.

"We live in a beautiful region," said Willwerth, "but with this environment, we also experience an increase in bird pressure. There's a lot of damage in the vineyard that the grower doesn't see."

Willwerth said current deterrent methods have mixed results. Netting is cumbersome, costly, and difficult to remove immediately before harvest, while acoustical deterrents such as bird bangers have negative effects on neighbour relations.

This is why over the past three growing seasons, Willwerth and his technician Mary Jasinski have been working with the Ontario Fruit and Vegetable Growers Association and the Grape Growers of Ontario to investigate new bird deterrent strategies.

The team started by estimating the bird pressure within the region, appraising the damage those birds were causing in vineyards and orchards, and then identifying the species that are most problematic.

One promising deterrent strategy is having growers attract natural predators said Willwerth. native to the area like the American kestrel. The kestrels' presence can alter the behaviour of problematic nonnative birds like European starlings. environmentall said Willwerth. They are no different variety other fruit crop





A flock of starlings take off as a pair of kestrels arrive back at their nest box

Kestrels, a territorial bird that prey on problematic vertebrates and invertebrates, can be attracted to take up residence by placing nest boxes (seen above) at the edge of properties.

Along with benefits to growers, this strategy might help rehabilitate the kestrel population which has had low numbers recently in Southern Ontario.

Willwerth and his team have also partnered with a New Zealand company to investigate visual options to deter birds using specialized lights in Ontario vineyards.

What the team has found so far is that there's no one-size-fits-all solution to deterring birds. The best strategy is a bigger arsenal of control options that growers can draw from when protecting their crop.

"In the end, we want to give growers more tools to combat bird and vertebrate damage in practical and environmentally sustainable ways," said Willwerth.

They are now looking at the effectiveness of deterrent strategies in different varieties of wine grapes and other fruit crops such as cherries and

blueberries. Trial sites are located across Niagara and Norfolk County.

If you are interested in building a kestrel box for your vineyard or orchard, contact Jim at jwillwerth@brocku.ca or research partner Susan Fitzgerald from Fitzgerald & Co. at susan.tfio@sympatico.ca

Hugh Fraser from the Ontario Ministry of Agriculture Food and Rural Affairs was also a research partner on this project. Funding was also provided by the Ontario Vineyard Improvement program, EverEdge IP and Agriculture-Wildlife Conflict Strategic Funding.

What's inside

| What's hiside | |
|--|---|
| Cuvée brings in thousands for research and education | 2 |
| Sparkling master class a success | 2 |
| Educate your senses at the Niagara Wine Festival | 3 |
| Alumnus takes on new role | 3 |
| Summer school's in session at the i4C | 3 |
| Triggs Lecture series returns | 4 |

Final tally shows Cuvée 2015 raised thousands for students and research

The accounting is finished, and organizers of Cuvée 2015 report that quality and a grapevine clone/ this year's grape and wine celebration event generated net revenues of \$33,000, most of which will go to supporting student scholarships and grape and wine research.

This was the first year that Cuvée was organized by CCOVI, a sold-out evening that took place Feb. 27 at the Fallsview Casino.

Of the net proceeds, \$5,000 will go to support the Niagara Community Foundation, in recognition of that organization's work in overseeing Cuvée for several years before CCOVI assumed responsibility.

Of the remaining \$28,000 in net proceeds, \$15,000 will be used to establish scholarships and \$13,000 will go toward industry driven research that supports the grape and Caslin saluted "the dedication of wine industry.

Organizers intend to use the \$15,000 scholarship money as follows:

- scholarships of \$5,000 and \$2,500 respectively for students in the Oenology and Viticulture bachelor of science program at **Brock**
- a \$2,500 scholarship for a student pursuing a Certificate in Grape and Wine Technology
- and a \$5,000 scholarship to establish a Cuvée award for a graduate student in Oenology and Viticulture.

Organizers have also identified two research projects that proceeds will help support. Funds will be dedicated to a sparkling wine

research project aimed at enhancing rootstock trial to assess the best combinations of varieties for our region.

CCOVI Director Debbie Inglis said the proceeds are a tribute to the staff, volunteers and organizing committee members who made the event a success.

"Staging an event like Cuvée involves hundreds of hours of work and a lot of commitment," said Inglis. "But it's worth it when you see the profits going to help students complete their education."

Cuvée 2015 drew positive reviews from many in attendance. Faces in the crowd this year ranged from Ontario's Lieutenant Governor to senior community, political and industry figures.

Niagara Regional Chair Alan Brock staff and volunteers who made this year's Cuvée an outstanding community event in support of Niagara's post-secondary students and our renowned wine industry."

"I had a great time and look forward to next year," said Caslin.

John Fisher, President and CEO of Walker Industries, remarked on the successful transition of this year's event to the new organizing team.

"Brock has done an excellent job of carrying on the work of the Niagara Community Foundation in making Cuvée a first class entertainment experience for the people of Niagara," said Walker.

Details on Cuvée 2016 will be announced in the coming weeks.

CCOVI Fellow receives prestigious fellowship

Narongsak (Tek) Thongpapanl, a CCOVI Fellow and Professor in Brock's Goodman School of Business, has been awarded the 2016 University of Canterbury's Erskine Fellowship, He will join a list of distinguished honorees with academic backgrounds ranging from commerce, engineering and science.

This fellowship will grant Thongpapanl the opportunity to visit the University of Canterbury in New Zealand next summer in order to deliver teaching and research seminars and workshops to faculty members and students in the areas of technological innovation, entrepreneurship and strategic management.

While at Canterbury, he will also be conducting comparative studies on his portion of an OMAFRA-funded sparkling wine research project titled "Developing high quality sparkling wines with regional identity in Ontario". While there, he hopes to learn the differences (if any) between consumer perception of sparkling wines from Canada, Australia, and New Zealand.

Master class focuses on the vineyard

On June 9, more than 50 local grape and wine industry personnel and students came to Brock to take part in a master class on the viticultural effects on sparkling wine quality.

The well-received session featured Fiona Kerslake, a viticulture expert from Tasmania, who gave the keynote and CCOVI viticulturist Jim Willwerth who discussed Ontario trials.

Local industry participants found value in the perspectives presented.

"It is interesting and useful to learn about what other sparkling wine regions are doing both viticulturally and oenologically", said Sandrine Bourcier, oenologist at Henry of Pelham Family Estate winery.

Save the date

Winemakers mark your calendar, the next sparkling-focused event is Fizz Club on Friday Dec. 11 and will feature tastings of research trials.

Summer school's in session at i4C

The fifth annual International Cool Climate Chardonnay Celebration (i4C) kicked off July 17th by going back to school.

The education day attracted a sold-out crowd of 350 to White Oaks Resort to hear local voices and international perspectives on Chardonnay production in cool climate regions.

Wine Spectator contributor Matt Kramer spent his keynote address talking about the difference of Chardonnays of cosmetics and Chardonnays of consequence.

According to Kramer, no other wine style has as much cosmetic work done to it as Chardonnay. However, he said growing wines in Ontario's cool climate region provides the right conditions to craft oenologist Belinda Kemp led the Chardonnays of consequence.

"The element of surprise is a privilege awarded to Chardonnays of consequence," Kramer said. "You grow the right wine at the right time. You have the capacity to



July 17-19, 2015

create chardonnays with this element."

Master Sommelier John Szabo moderated the three panel discussions that followed.

CCOVI wine flavour specialist Gary Pickering discussed the taste and aroma of 'cool' from a scientific perspective. The second session centered around a discussion about whether minerality exists. CCOVI final panel which was a discussion on sparkling wine.

CCOVI is a proud partner of the panel sessions. Slides from Pickering and Kemp's presentation can be found at coolchardonnay.org

OEVI alumnus takes on new role at CCOVI

CCOVI is pleased to announce that Steven Trussler, BSc '09, has been appointed to the institute's Sr. Lab Demonstrator and Academic Adviser role. He takes over the position following Gail Higenell's retirement in Mav.

Since fall 2013, he has been working as the CCOVI technician in the institute's Analytical Services lab. Previous to that, he brings years of experience working in the grape and wine industry in Niagara.

His industry experience will be a benefit to students in the classroom. Education at Brock.

"It's helpful to show students how theoretical concepts are



actually applied in viticulture and winemaking," he said.

Steve also has a BSc in Biology from the University of Guelph and is currently working part-time on a Bachelor of Education in Adult

Contact Steven at: strussler@brocku.ca or 905 688 5550

What kind of cool are you?

Guests attending i4C's consumer-focused events 'Barrels and Bonfires' and the 'Cool Chardonnay World Tour Grand Tasting and Dinner' had the opportunity to profile their palate and learn which styles of Chardonnay best matched their taste preferences.

Organized by CCOVI outreach manager Barb Tatarnic, OEVI students were able to use a blind tasting format to help direct consumers towards Chardonnays being featured at the event that matched their preferred style.

Peru delegation gains insight into CCOVI's research and outreach

A delegation from the Centro de Formación Agrícola Moquegua (CFAM), an agriculture education institute in Moguegua Peru, visited CCOVI June 26.

The group toured CCOVI to learn about the institute's industry outreach and research collaborations.

The delegation was in Canada as part of a project with Niagara College and Nova Scotia Community College to improve the viticulture and oenology program at CFAM and enhance institutional management at their institute.

Educate your senses at the Niagara Wine Festival

Visitors to the 2015 Niagara Wine Festival will once again get a chance to educate their senses with wine seminars organized by CCOVI.

The sessions give participants an opportunity to learn more about the wines being poured at the festival.

Best-selling author Linda Bramble and CCOVI oenologist Belinda Kemp will host winemakers as they tell the story behind their wines.

The seminars will take place both Saturdays of the festival Sept. 19 and 26 at 2, 3 and 4 p.m. rain or shine. Brock alumni will receive a free wine glass when they attend a session.

Reserve your spot today by registering at: http://www.niagarawinefestival.com/Educate -Your-senses-Seminar-Series

Briefs

Business

- Kwong, L., Sun, L. (2015). Eco-labels and consumer informativeness. 49th Annual Conference of the Canadian Economics Association, May 29, Toronto, ON.
- Massa, F., Voronov, M., De Clercq, D., and C.R. Hinings (2015). Mired renaissance: The stalled theorization of a legitimately distinct collective identity for the Ontario wine region. European Group of Organization Studies, July 2-5, Athens, Greece.

Oenology

- Pickering, G. (2015). Climate and Wine. Climate and Wine Symposium, University of Prince Edward Island, Charlottetown, PE.
- Dowling, L., DiProfio, F., Botezatu, A., Brownbridge, M., DeLuca, V., Pickering, G., & Inglis, D. (2015) Exploring Appassimento Winemaking for Ontario. ORF-RE Researchers' Day, July 20, Guelph, Ontario.
- Kelly J., Dowling L., DiProfio F., Brownbridge M., De Luca V., Pickering, G., Inglis D. (2015). Characterizing S. bayanus Brock Isolate: Appassimento Wine in Ontario. ORF-RE Researchers' Day, Guelph, ON.
- Onguta E., Dowling L., Kemp B., Willwerth J., van der Merwe G., Inglis D. (2015). The suitability of L. cv. Pinot noir Mariafeld for Sparkling Wine Production in Niagara, Ontario. ORF-RE Researchers' Day, July 20, Guelph, ON.
- Wang, T., Yang, F., Zelisko, P., Pickering, G. and D. Inglis (2015). Reduction of 3-alkyl-2-methoxypyrazines using Immobilized MP- binding protein. ORF-RE Researchers' Day, July 20, Guelph, ON.
- Dowling, L., Kemp, B., Onguta, E., & Inglis, D. (2015) Increasing sparkling wine quality, productivity, and winery revenue with press fractioning of L. Cv. Pinot noir clone 115 in Ontario. In 40th ASEV ES Annual Meeting, July 24-25, Dunkirk, NY.
- Kelly J., Dowling L., DiProfio F., Brownbridge M., De Luca V., Pickering, G., Inglis D. (2015). Appassimento Wine in Ontario: Characterizing Saccharomyces bayanus, Brock Isolate Yeast. 40th ASEV ES Annual Meeting, July 24-25 Dunkirk, NY.

Onguta E., Dowling L., Kemp B., Willwerth J., van der Merwe G., and D. Inglis (2015). The suitability of L. cv. Pinot noir Mariafeld for Sparkling Wine Production in Niagara, Ontario. In 40th Annual ASEV ES Conference, July 24-25, Dunkirk, NY.

Viticulture

- Moreno Luna, L.H. A.G. Reynolds, and F. Di Profio (2015). Impact of crop level and harvest date on aroma compounds of four *Vitis vinifera* wine grape cultivars in Ontario, Canada. ASEV ES 40th Ann. Meeting, July 24-25, Dunkirk, NY.
- Reynolds, A.G., N. Robbins, Hyun-Suk Lee, and E. Kotsaki (2015). Impacts and interactions of abscisic acid (ABA) and gibberellic acid (GA) sprays on Sovereign Coronation and Skookum Seedless table grapes. ASEV ES 40th Ann. Meeting, 24-25, Dunkirk, NY.
- Reynolds, A.G., R.B. Brown, E. Kotsaki, and Hyun-Suk Lee (2015). Utilization of proximal sensing technology (Greenseeker) to map variability in Ontario vineyards. ASEV ES 40th Ann. Meeting, July 24-25, Dunkirk, NY.

Publications

Oenology

- Bellon, JR., Yang, F., Day, M., Inglis, D. and PJ Chambers PJ (2015). Designing and creating Saccharomyces interspecific hybrids for improved, industry relevant, phenotypes. Applied Microbiology and Biotechnology.
- Botezatu, A. and G.J. Pickering (2015). Novel applications for biomaterials: The case of remediation of wine taints using poly-lactic acid polymer. Applied Mechanics and Materials, 749: 70-73.

Viticulture

- Crandles, M., A.G. Reynolds, R. Khairallah, and A.J. Bowen. 2015. The
 effect of yeast strain on odor active
 compounds in Riesling and Vidal blanc
 icewines. LWT Food Science and
 Technology 64:243-58.
- Willwerth, J.J., A.G. Reynolds, and I. Lesschaeve. 2015. Sensory analysis of Riesling wines from different subappellations within the Niagara Peninsula. Amer. J. Enol. Vitic. 66:279-93.
- Synos, K. and A.G. Reynolds. 2015.
 Effect of yeast strain on aroma compounds in Cabernet Franc icewines.
 LWT Food Sci. & Technol. 64:227-35.

Triggs Lecture returns

The Triggs International Premium Vinifera Lecture series returns in Ontario and British Columbia this August presenting Glenn McGourty from the University of California's Cooperative Extension Office.

The series, endowed by a donation from Don and Elaine Triggs, showcases leaders in the cultivation of premium vinifera grapes through a day of vineyard visits and a public lecture. Both are free, but a RSVP is necessary.

McGourty will speak about cover crop management, a critical component of a premium vineyard system.

The lecture is being offered nationally thanks to the financial support of BASF Canada Inc.

Ontario event

- Aug. 19—Vineyard visit and technical workshop
- Aug. 20-Public lecture at Brock University
- RSVP by Aug. 14 to ccovi@brocku.ca
 British Columbia event
- Aug. 25-Vineyard visit and technical workshop
- Aug. 26-Public lecture at PARC
- RSVP by Aug. 18 to bcwgc@shaw.ca

Continuing education offers strong lineup of fall courses

Are you looking to expand your wine education knowledge this fall? If so CCOVI has a strong offering of online and in-class offerings to choose from.

The wine appreciation Exploring Varietals course begins Sept. 15 and runs Tuesday nights through Dec. 1 at Brock University. This course, perfect for beginners, helps students improve their tasting skills and develop an ability to distinguish wine varietals.

For those interested in the Wine & Spirit Education Trust program, the Level 2 award will be available to take in person Thursday nights from Oct. 8 to Dec. 3. For those who can't make it to campus, there is also three online offerings of this course this fall. The Level 2 award provides students with fundamental product knowledge including major grape varieties and wine styles from key wine producing countries.

For more details, visit: ccovi.ca/ce/courses