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CROP ADVISER**

CCA CHATTER

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August Exam & Exam Registration Changes

There will be an opportunity to write all CCA exams on August 7, 2020.


Registration for the exam can be done online and will be open from April 27th to June 26th. You can cancel at any time up to the registration deadline. Note that you will only receive a refund for any amount over \$75.00 and that the exam fee is non-refundable after the registration deadline passes.

If you will be re-writing the Ontario exam, the ICCA will be sending you information on a re-take code you can enter at the checkout. If you did not receive this code when you go to register, contact Laura at laura.tfio@bell.net and she get you the information you need.

To register for the exam, visit our website at: <https://www.certifiedcropadviser.org/exams/registration>

The exams will be offered online as they were in February 2020. Your laptop must have access to a webcam as the exam will be monitored by an external proctor. Please visit the ICCA website to ensure your laptop meets compatibility requirements and for further information regarding the proctor. <https://www.certifiedcropadviser.org/exams/remote-proctor>

Individuals with disabilities need to notify the Certification Department at (866)-359-9161 or certification@sciencesocieties.org minimum three weeks prior to the exam, and must provide documentation of your disability and notify us of your needs.

If there are any questions regarding this change, please contact laura.tfio@bell.net 

2019 Ontario CCA Award of Excellence Winner

The CCA Award of Excellence was given out at the CCA Conference and Annual Meeting in January since 2004.

This year, there were two nominees:

Colin Elgie
Jason Van Maanen

The recipient of the award for 2019 was Jason Van Maanen.

Jason Van Maanen was nominated for the Ontario Certified Crop Advisor Award of Excellence by his peer, Erica van Stryland.



Colin Elgie (left),
Jason Van Maanen (right)

Jason grew up on a diversified cash crop, tobacco and trout farm in the Delhi area. He went on to graduate from the University of Guelph with a Bachelor of Science in Biology with a minor in Soil Science/Ecology in 1993. He obtained his CCA designation in 1998 and he also has his 4R Nutrient Stewardship Specialty Designation.

Jason has 25 years' experience in the industry. In his current position with Southwest Agromart, Jason works predominantly with cash and specialty crops. He also assists customers with agronomic and economic planning through crop diagnostics, soil data interpretation and fertility recommendations.

Jason's nominator states "Jason knows how to be practical in all agronomic situations. He is a leader in the 4R sector and truly knows how to balance the economic, social and environmental portions to make farming sustainable. He also reaches out to others to educate." She also noted that "ethics dictate everything for Jason."

Continued on page 2.



The 2019 CCA Award of Excellence was co-sponsored by CropLife Canada and Syngenta. The 2019 award was presented to Jason Van Maanen, January 15, 2020 at the CCA Conference and Annual Meeting in London. Presenting the award is Shawn Brenneman (Left, Syngenta) and Bob Thirlwall (Right, CropLife Canada)

Congratulations Jason!

Nominations for the award are taken throughout the year with a submission deadline of October 31st. Nomination forms can be obtained by visiting the website at www.ccaontario.com or by calling the office at (519) 669-3350. 🌱

2020 CCA Conference and Annual Meeting

The 2019 conference and annual meeting was another success. There were 272 attendees!

The 2020 CCA conference sponsors were as follows:

Gold Sponsors - \$2,500 Contribution

- A & L Canada Laboratories
- ALPINE
- Agronomy Company of Canada

Silver Sponsors - \$1,500 Contribution

- Ag Resource
- NuFarm Agriculture Inc.
- Bayer Crop Sciences
- SGS Agri-Food Labs
- BASF
- Sylvite Canada
- Crop Life Canada
- Syngenta
- Great Lakes Helicopter
- Veritas
- GROWMARK
- Yara Canada

Bronze Sponsors - \$500 Contribution

- C & M Seeds
- Grain Farmers of Ontario
- Corteva
- Mosaic
- Grasslands Recruitment Specialists
- Pride Seeds
- SeCan

2019 CCA Award of Excellence

Co-Sponsors - \$1,000 Contribution

- CropLife Canada
- Syngenta Canada

Thank you again to all our sponsors. Without your continued support we would not be able to maintain such an informative and collaborative event.

Save the date! The 18th CCA Conference and Annual Meeting has been set for January 13 and 14, 2021! We will be returning to the Best Western Lamplighter Inn in London. Further details will be posted on the website soon. 🌱

20 Years Certified in Ontario

The following CCAs received their 20-year certificate at the 2020 CCA conference.

Congratulations on this milestone!

- | | |
|-----------------|--------------------|
| Dave Barkley | Doug Legge |
| William Bowman | James MacEvoy |
| Keith Brimner | Glen McDonald |
| Darryl Burnett | Neil Millson |
| Tanja Checkley | James Morlock |
| Sean Cochrane | Julien Papineau |
| Brian Colville | Terry Phillips |
| Paul Cornwell | Terry Reesor |
| Grant Craven | Richard Rell |
| David Elliott | Charlie Roland |
| Alan Govier | William Roy |
| John Graham | Fred Sinclair |
| James Hazlewood | Anthony Siroen |
| William Honey | Stanley Tufford |
| Carl Huff | Joseph Uyenaka |
| Joseph Jackson | Adrian Van Niekerk |
| Mark Janiec | Jasper Vanderbas |
| Donald King | Gordon Walker |
| Jack Legg | Gerald Winnicki 🌱 |

Soil & Water Day

In partnership with Mosaic, the Ontario CCA Association will be hosting the 4th Soil & Water Information Day on Wednesday, November 18, 2020. The event will take place at Springfield Golf & Country Club in Guelph.



Expected CEUs available for the day will be posted to the Ontario CCA website under "Current Events" shortly.

Once the agenda has been set, an email will be sent to all CCAs. 🌱

Conference Draw Winner

This year there were two draws held at the CCA conference. The first was for a CCA that contributed to the Ontario Farmer by writing an article. The second draw was for CCAs whose voicemail stated that they were a "Certified Crop Advisor."

This year's winners were Jonathan Zettler and John Hussack. Congratulations! 🌱

CCA Fees Increasing

The Ontario CCA office collects all renewal fees from Ontario CCAs but must remit a portion of those fees to the International CCA office. We have been fortunate that the remittance to the ICCA office has been calculated in Canadian dollars. Beginning with the 2020 fees, those transfers will be calculated in U.S. funds. Unfortunately, this will translate into an increase in some fees. We were successful in getting the ICCA office to agree to a phase-in over two years for renewal fees. Below is a breakdown of the anticipated fee increases in **Canadian dollars** based on the current U.S. exchange rate. The fees will be confirmed in September each year. If the Canadian dollar should strengthen or weaken, the rates will be adjusted accordingly.

Currently: 2020 renewal = \$70 for Ontario and \$70 for International = \$140 CAN plus HST

For 2021 renewal = \$70 for Ontario and \$75 for International = \$145 CAN plus HST (forecast, subject to exchange rate)

For each CCA specialty, the annual fee will not be changing (\$50.00 CAN plus HST). 🌱

CCA Conference Auction Summary

Another very successful auction was held over the CCA conference. A sum of \$5,186.50 was raised in support of the Farm & Food Care.



We are now asking for agricultural charity suggestions for the 2021 auction. If you have an idea, please email your suggestion to the CCA office and the Marketing Committee will review all suggestions in the coming months.

As well, we will be starting to collect donations for the coming auction. We are asking for both consumer and agricultural goods

for the 2021 auction. No donation is too small. Please contact Laura at laura.tfo@bell.net if you have any questions or would like to make a donation to the silent auction. 🌱

Resistant Management Specialty Exam Results

Between February 7th and 14th the second Resistance Management exam was officially held online. Of the three people registered to write the exam, we are happy to announce that all three successfully passed the exam. Congratulations!

Meagan Griffiths
Robert Miller

Wilhelmina Van Stryland

The ICCA Program developed the RMS certification to meet the growing demand for qualified advisers with focused knowledge and skills in pest and resistance management. CropLife Canada has supported the writing of a resistance management resource guide which is available online.

For those who have passed the RMS exam, an annual maintenance fee will be charged in addition to your CCA renewal, and the minimum CEUs required for IPM will increase to 10.0 (from 5.0). 🌱

4R Nutrient Management Specialty Exam Results

There were 21 individuals writing the 4R NMS exam this year. Of those 21, 14 individuals or 67% passed and received their specialty designation. In Ontario, we now have 142 CCAs with their 4R specialty.

For those who now have their 4R NMS designation, the minimum requirements for CEUs in Soil and Water and in Nutrient Management have increased to 7.5 in each of those two categories (up from the standard minimum of five). However, the overall total of 40 CEUs in a two-year cycle remains the same. If your CEU cycle ends December 31, 2020, you MUST complete the additional CEUs by the end of your cycle. Accordingly, if your cycle ends December 31, 2021, you will have to complete the additional requirements by December 31, 2021.

Congratulations to the following Ontario CCAs who pass their 4R NMS exam!

Christopher Albrecht
Wayne Black
Brian Colville
Sarah Doelman
Steven McQueen
Jason Migchels
Kelly O'Connor

Nicholas Otten
Tyler Sabelli
Kaylene Sangers
Benjamin Schapelhouman
Scott Snowe
Jordan Thompson
Wilhelmina Van Stryland 🌱

Are you an Ethical CCA?

Submitted by Susan Fitzgerald

After successfully completing your CCA exams, you were asked to submit your work and education credentials as well as sign a Code of Ethics. Do you remember what was contained in that Code? If not, you can access a copy on the CCA Ontario website at <http://www.ccaontario.com/become-cca> under point three of the steps to becoming a CCA.



Ethical behavior, simply put, is doing the right thing. Deliberate deception, failure to honour commitments, and illegal activities are fairly obvious examples of unethical business practices. But unethical behavior can involve much broader areas as well, such as deliberate violations of company policies, or using hard-sell sales practices that may be legal, strictly speaking, but that are not in the best interest of your customer.

Within the CCA program, we have discussed previously that misrepresenting work or education experience on your CCA credentials submission or claiming CEUs for events you did not attend would also be considered unethical practices and in breach of your Code of Ethics.

One area on which I have not previously commented is the professional conduct of CCAs to each other. This is covered under Article IV, Relation of Professionals to Each Other in the CCA Code of Ethics. There are four main points under that section:

1. CCAs are not to falsely or maliciously attempt to injure the reputation of another CCA.
2. CCAs are to give appropriate credit for work done by others.
3. If employed by a public institution, such as a government department or university, CCAs are not to use that position to unfairly compete with others.
4. CCAs are to strive to cooperate with other CCAs and encourage the ethical dissemination of technical knowledge.

Competition is part of doing business; it's the practices you use to try to gain that extra market share or increase volumes that this section addresses.

Play together nicely in the sandbox! If you don't, and an ethics complaint is lodged against you, there are some serious consequences for your CCA designation if the Standards and Ethics Committee agrees with the complainant. The Committee could write a letter of warning and have it placed on your file, they could suspend your CCA designation for a set period of time, or you could lose your CCA certification indefinitely. 🌱

CCA-ON Grower Survey Results 2019

Submitted by Leigh Hudson CCA-ON

Stakeholders, employers and Ontario Certified Crop Advisers (CCA-ON) recently completed surveys on how they perceive the CCA-ON program. The survey aimed to assess the value of the program, along with the challenges and opportunities which currently face the association and the industry now and in the future. As a 2019 CCA-ON mentee in the CCA-ON mentorship program, I thought this would be a great opportunity to ask similar questions of our clients and customers, the Ontario grower, to see if we are all on the same page with regard to where and how important the CCA program is to both the grower and their operation.

The survey consisted of 15 multiple choice, multi-selection and comment questions. It was circulated via the CCA-ON membership and a few stakeholders. It was also promoted on social media (via Facebook and Twitter) continuously for a month in the fall. There were 225 surveys completed, of which was a balanced data set from all age groups, with 45% of surveyors being over the age of 55. Of this group, 91% were grain producers, 52% were oilseed growers, 31% grow forages, 11% greenhouse and/or orchard production, and 5% selected other production with majority of this being custom application and services. Fifty-two percent of those surveyed have some kind of livestock, with the majority being dairy (16%) or beef cattle (18%). Majority of respondents operate operations the size of 700 ac. or less (68%); with 23% being over 1000 ac. in size. These values correlate with the amount of livestock operations being surveyed.

We wanted to know if growers knew what it takes to become a CCA, 59% said yes, and the remaining said no or they were not sure. This information could be of interest for marketing purposes and general acknowledgement of what it takes to become a CCA; that it is more than an exam to pass.

Next, we wanted to know if they work with a CCA-ON: 55% said usually or always, 25% answered sometimes, 14% said rarely or never, and 5% said they didn't know if they used a CCA. When they make crop management decisions, the top four people they work with are: agri-retailers (78%), seed dealerships (58%), private consultants (30%), and agricultural test labs (26%).

The majority of growers place great value in the CCA designation. They like how it sets a benchmark for education standards, provides troubleshooting expertise, continuing education opportunities and allowing them to stay current with innovations, and lastly providing credibility and professionalism to the role of crop advising. Though there are many positives, there were a few comments made such as:

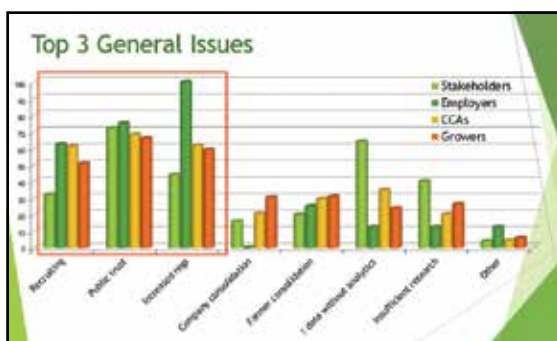
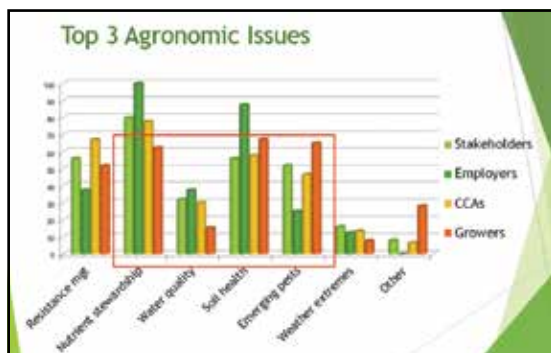
"Many years ago, a CCA (designation) showed the individual was highly credited...but now the program has become diluted and anyone can get a CCA now..."

"There are too many kids out of university getting their CCA... totally devalues the designation...have little hands on skills..."

"I have worked with many without a CCA and they are also a wealth of knowledge..." "No non-CCA has given me any less information and expertise than someone with a CCA..."

"...gives them credibility and are considered unbiased when making recommendations. I rarely see this as they are trying to sell product and what is not best for the producer."

With this being said, we asked what they think the role of the Ontario CCA Association should be. Maybe we can address these comments made? They think the role of the association is to: encourage continuing education, provide unified voice with issues that affect CCAs, promote the designation to grower groups and industry, as well as promote recent best management practices. Growers do not think CCAs and the CCA Association should be involved with sales and government lobbying/politics. The question asking what the association should not be involved in was skipped by 140 respondents.



We asked growers about their preferred form of communication. With little surprise, email was the number one choice. Though this depended on the type of communication they are getting. If it is something serious or requires decision making and discussion, they would rather voice call or face to face communication. Face to face and email were the first choice, with texting and voice call the second choice depending in the situation. A few respondents thought this question was confusing and not specific enough.

Lastly, to see how the producers' perspective differed from the stakeholder, employer and CCA survey results, we asked what are the top issues facing agronomy and the agriculture industry as a whole. See Figure 1. Top three Agronomic Issues and Figure 2. Top three General Issues for the results.

Overall growers in Ontario value the CCA program and it is appreciated greatly by all. They want people to continue to acknowledge that the CCA designation is an accomplishment and to continue bringing valuable information and innovative tools to agronomy.

I would like to thank the Ontario CCA Association and the CCA Board for the mentorship opportunity. It was a great way to learn about the association more and to meet other agronomists in the industry. Thank you. 🌱



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Soluble Salts (EC) and Sodium (Na) for Compost

Submitted by Kelly O'Connor

Table 1. Uses for materials based on electrical conductivity (soluble salts) ratings and blending recommendations.

Rating	EC ms/cm	Uses for Material
Very Low	< 0.75	May be used in a planting media directly, will require some nutrient addition for plant growth
Acceptable	0.75-2.0	May be used directly as a media for small plants and seeding
Medium	2.0-3.5	May be used for transplant. Tender plants may need to be diluted with 25 to 50% soil
Medium High	3.5-5	Good for topdressing on established plants or blending as a soil amendment 2-1 to 5-1 soil to compost
High	10-May	Used as a soil amendment blended 4-1 up to 10-1 soil to compost
Very High	> 10	Only use for low application rate to areas with more salt tolerant planting

Soluble salt or electrical conductivity is a measurement of the total salt content in a material. This is a measure of "good" salts like potassium, calcium, nitrate and ammonia as well as "bad" salts like sodium and chloride.

Total soluble salts can be high due to "good" salts like potassium or calcium, which, if diluted can be a good source of both nutrients. Electrical conductivity due to sodium or chloride can be more challenging to dilute since it is not required in significant amounts. Below is a table of uses for material based on the soluble salt (EC) level found on page 7 of our Compost Guide. It is important to check both EC and sodium on your Soil Suitability Report.

Injury from salts (both good and bad) may first occur as mild chlorosis and progress to necrosis of leaf tip and margins. You may recognize this as "leaf burn". Root injury is more difficult to see but results in poor uptake of nutrients and water uptake. Plants are wilted and have poor growth. This can predispose plants to a wide range of root diseases like Pythium and Fusarium.

COMPOST REPORT

Sample Number	Lab Number	pH	Linear Index	Available Organic Matter %	Phosphorus P ppm	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm
1835	6.9	7.8		23.8	488	1943	521	6219

Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Sodium Na ppm	Nitrate-N NO3-N ppm	Soluble Salt mg/L	Nitrogen (Total) (%)	Moisture %
319	23.3	24	211	4.8	4.8	236	55	2.2	1.66	

INTERPRETATION

EC	meq/100g	% K	% Mg	% Ca	% Na	K	Mg	Ca	Na	Mg/K	Ca/K	Cation Ratio	G/R Ratio
41.3	106.8	12.05	10.36	75.19	2.48	4.88	4.28	31.95	1.63	1:1	7:1		

Optimum Range: 3-5 8-22 10-30 0.5-1.5 7:1 5:1

Our Soil Suitability Compost Report shows the available nutrients, Soluble Salts and Sodium giving you a better opportunity to blend your material to within safe levels for growth. Compost is best applied in the fall to reduce the potential for plant injury and increase the available nutrients. 🌱

Industry Updates

Conservation Authorities Update

Submitted by Michael Dick

Survey - As part of the latest provincial consultations on conservation authorities, the Ministry of Environment, Conservation and Parks (MECP) released an online survey asking for public input about CA mandatory and non-mandatory programs, the CA model, governance and as well as other activities of conservation authorities. Conservation Ontario made a submission to the online survey and has written a blog to promote the submission. You can find the blog and position online along with the consultation presentation and backgrounder by following the link here: https://conservationontario.ca/fileadmin/pdf/policy-priorities_section/CA_Act_Submission_FINAL_2_CO_survey_submission_March_2.pdf

Flooding - the province in response to the Flood Advisor's 2019 Report released Ontario's Flooding Strategy. It reinforces a commitment to protect people and property from the devastating and costly impacts of flooding. Conservation authorities (CAs) welcomed the coordinated approach the province proposes to build across ministries and in partnership with municipalities and CAs.

ONFarm - Conservation Ontario and CAs were pleased to participate in the first ONFarm Stakeholder workshop on Feb 25th, 2020. ONFarm, the new OSCIA program will continue some of the GLASI priority subwatershed projects started by CAs, and in addition, will establish demonstration farms across the province through local OSCIA chapters.

The following highlights activities of some CAs in the Lake Erie Basin

Lake Erie Action Plan Update (LEAP)

Conservation Ontario staff and conservation authorities continue to engage and deliver actions towards the reduction of phosphorus loadings and harmful and nuisance algal blooms to Lake Erie.

The Cropwalker Agronomy Newsletter

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Contact patricklynch872@gmail.com for additional membership options.

Published by:

Patrick J. Lynch CCA-ON

Jonathan Zettler CPA, CMA, CCA-ON 4R-NMS

Great Lakes Protection Initiative

The Essex Region Conservation Authority is continuing to offer cost-share opportunities for cover crops and crop nutrient plans through funding from Environment and Climate Change Canada. Grants are available to farms in the Lake Erie watershed.

Applications for 2020 were accepted starting on January 10th. Farm Businesses must have a Farmland Health Checkup from a Certified Crop Advisor to be eligible for the cover crop and crop nutrient grants. The funds for 2020 are 75% allocated as of mid-March.

The Lower Thames Valley Conservation Authority (LTVCA) continues to accept applications for financial incentives to support the implementation of agricultural Best Management Practices (BMPs) within the McGregor and Jeannettes Creek subwatersheds. This includes funding for practices such as: cover crops, strip tillage and variable rate phosphate applications, soil sampling, and erosion control structures.

The St. Clair Region Conservation Authority hosted 2020 Soil Health Day in February, funded in part by Fisheries and Ocean Canada. Topics focused on the use of agricultural best management practices (BMPs) to improve soil health, manage nutrients on the land and consequently reduce phosphorus loading to the Sydenham River Watershed. Keynote speakers included Steve Groff, a cover crop coach and Dr. Donald Scavia, a professor with the University of Michigan, who discussed phosphorus loading in the St. Clair-Detroit River watershed. Additional Soil Health workshops are planned.

Ontario Soil and Crop Improvement Association Report

Submitted by: Stuart Wright

The Ontario Soil and Crop Improvement Association had a very successful Annual General Meeting on February 4th & 5th in London, Ontario with a number of compelling speakers educating delegates from all across the 50 plus counties and districts in Ontario that have active local associations.

Reports were given on Tier 1 and 2 projects. The Tier 2 projects included work being done on a variety of topics including relay cropping, cereal rye cover crops in both conventional and organic systems and mycorrhizal stimulants on potatoes. Information will be available on the OSCIA website at Crop Advances when these projects are completed in late 2021. Updates will be available at select Soil and Crop events throughout the year.

There are two new programs that OSCIA is excited to be part of starting this year. The ONFARM initiative is intended to study the effectiveness of soil health Best Management Practices on a real farm scale at various sites around the province. Living Labs is a federal initiative with Agriculture and Agri food Canada searching out new technologies and sustainable farming practices. OSCIA has also been part of the Soil Action Group that is a next step process of the Soil Health Strategy developed by the Ontario Ministry of Agriculture, Food and Rural Affairs.

Continued on page 8.

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There was great uptake of both Canadian Agricultural Partnership and LEADS cost share opportunities during the January intakes. OSCIA staff are working furiously to get approvals sent out to producers so BMPs can be implemented in 2020.

Of course, the COVID-19 situation has affected OSCIA greatly. Staff are adapting as well as they can to working at home and maintaining work rates to satisfy program obligations. Environmental Farm Plan workshops have had to be cancelled so that could affect producers if there is another intake although we have no indication that will be the case. Staff, executive and directors are becoming well acquainted with conference calls and are keeping the Association moving forward.

We want to encourage anyone looking to organize a meeting/ bus tour (if that is still possible) this summer to consider the Huron Soil and Crop Contour Controlled Drainage project at Clinton. They are eager to promote this outstanding learning opportunity.

I have seen CCA-Chair Deb Campbell and numerous CCA reps at many soil health related meetings and events this winter and on behalf of OSCIA want to express gratitude for your involvement and valuable knowledge in making these events successful.

Farm & Food Care Ontario

Submitted by: Les Nichols

Farm & Food Care Ontario has now moved to its new location at 660 Speedvale Ave., W in Guelph. They held an open house at the new location in early February with a great attendance.



Great Lakes Helicopter

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The new facility is very suitable for their operation along with a significant cost reduction.

The COVID-19 situation has certainly created some challenges for FFCO as it has for most businesses and residents in Canada. They had several "Speak Up" training seasons planned for February and March, but these events had to be canceled due to COVID-19.

The AGM and annual conference were planned for April 15 at Milton with some excellent presenters, but unfortunately that event had to be cancelled as well. In order to stay in compliance with their by-laws they will be holding their AGM sometime in the next few weeks. Based on the current situation this may be held as a webinar or conference call event! Conducting elections via conference call sounds a little challenging but I suppose it is a sign of the times!!!

Agriculture and Agri-Food Canada

Keith Reid

Work is proceeding on the Ontario Living Labs proposal, which is intended to assist AAFC research in being more responsive to the immediate needs of our farm clientele. Both external and internal final proposals were submitted on December 13, 2019, and are currently under review by Programs Branch, Living Labs Division. We anticipate approvals in place for an April 2020 start to the Ontario Living Labs project. This project should be very complementary with (but not duplicate) the ONFARM program of OMAFRA.

As with other government departments, activities at AAFC research centers have been reduced to essential activities only, which include feeding and care of livestock (including live insect collections), watering of greenhouse plants, and essential building maintenance. Otherwise, we are expected to work from home and maintain social distancing, and no travel will be allowed until May 1st at the earliest. This will inevitably slow the response to enquiries, since we are handling most of our email through our phones, but it will allow us to spend time doing some data analysis that has been on hold due to lack of time.

OMAFRA Report

Submitted by: Christine Brown

Planned spring and summer activities are being reworked as physical distancing continues in an effort to keep Ontario residents healthy. At the time of printing: Ag Breakfast meetings are being planned as video conferences on Zoom. A test run is planned for March 27 to determine the specific path forward.

Summer diagnostic days at Ridgetown, Elora, and Winchester will not be held as face-to-face events. Currently, field staff are looking at options for presenting interactive video conferences. Application will be made for CEU credits wherever possible. Events scheduled for August and September are currently in a "wait and see" mode.

Re Pesticide Act changes (including NNI), everything is on hold. We have no idea when things will begin to move again. Industry will need to continue to operate under the current

regulations and likely should not expect any changes being in place for this season. Industry/stakeholders are required to continue to follow the current NNI reg requirements this season until changes can be finalized.

Current crop information from OMAFRA staff will continue to be posted to www.fieldcropnews.com

University of Guelph

Submitted by: Dave Hooker

- Research activities for 2020 have been supported by the province and U of G's VP of Research for most of our research programs. Crop researchers have been granted "special" considerations, since much of our work is considered seasonal. Each researcher must submit a plan to conduct any planned or ongoing research, and have the plan approved for 2020. Each researcher must describe COVID-19 mitigation practices and demonstrate a "scaling back" of activities.
- Dr. Charlotte Yates (Provost and VP Academic) has been elected President on an interim basis for a 2-year term.
- Ken McEwan has stepped down as Director of Ridgetown Campus. The application process to fill this position will end on March 31, 2020.
- Over 50 applicants were received for the Grain Farmers of Ontario Professorship in wheat breeding position in Plant Agriculture; we have identified one, and Hugh is negotiating with the candidate.
- Dr. Kimberley Schneider was appointed in January 2020 as an assistant professor in Forage and Service Crops in the Dept. of Plant Agriculture.
- Plant Agriculture is partnering with OMAFRA through research alliance to secure a long-term funding and a administrative and consulting model that would classify the long-term trials as infrastructure. These trials would include: i) long-term cover crop/vegetable trials in Ridgetown (VanEerd), ii) long-term cover crop/tillage/crop rotation trials for field crops (Raizada/Deen/Hooker) at Ridgetown and Elora; iii) long-term crop rotation-tillage-N trial at Ridgetown (Hooker), and iv) the long-term tillage-crop rotation trial at Elora (Deen).
- There is a need to modernize the crop research infrastructure at Ridgetown. We are proposing the construction of a new Sustainable Crop Research and Innovation Centre to provide state-of-the art technology to Ontario's agricultural producers, agribusiness and other industry partners and to prepare people for jobs in the sector. The proposed project is estimated to cost \$20 million. The Campus has raised \$3.8 million towards the required 20% contribution needed to leverage both the federal and provincial 80% investment.
- Under the direction of Profs. Kari Dunfield, Laura Van Eerd, and Claudia Wagner-Riddle, a new outreach initiative was formed with the name Soils at Guelph (<https://soilsatguelph.ca/>). Soils at Guelph is an effort to increase awareness of research initiatives, facilitate collaboration and knowledge exchange among stakeholders, and to educate on the importance of soil health. 🌱

Updating your Personal Information

Note to all Ontario CCAs, please make sure that if your personal information changes (mailing address) that you update the information online.

Also don't forget to keep your email address updated! Email is the primary means of communication for CCAs, if you don't have your email updated you could miss important information. Please contact Laura at the CCA office to update your email: laura.tfio@bell.net. 🌱

CEU Centre

Remember to check your CEU report often. Every two years you must accumulate **40 CEUs with a minimum of five CEUs in each of the four agronomic categories**. CCAs with their 4R designation need a minimum of 7.5 in NM and SW. For those who have passed the RMS exam, the minimum CEUs required for IPM will increase to 10.0 (from 5.0). You do not have to have any CEUs in Professional Development, it is an option.

The link for the event calendar is: www.ccaontario.com/events

If those seminars do not fit your schedule, you can check out the self-study courses available online at www.certifiedcropadviser.org. **There is no limit to the number of on-line courses you can take.**

If you attend a meeting, or a lecture where the event organizer did not apply for CEUs, you can self-report those credits. Don't forget, self-reported credits are subject to an audit every six months by the Continuing Education Committee. Make sure when you self-report CEUs you are descriptive, and give the time and length of the event you attended.

The CEU application has been updated. To apply for CEUs please go to: www.ccaontario.com/CEU-Centre.

You can also find a step by step presentation explaining how to apply for CEUs, along with the CEU standards document for those unclear what CEUs may be appropriate for their meeting or event. 🌱

Job Postings

If your company is looking to fill vacant positions within your organization, you can post those opportunities on the CCA website. <http://ccaontario.com/careers>

Please let your human resource department or the person within your organization who is responsible for hiring, know that this service is available. There are still many companies who post their ads on other recruiting websites. Why not use the CCA website as an avenue for finding the right fit for your company?

Rates are available upon request by contacting the CCA office. 🌱

Follow us on Social Media!

Follow CCA Ontario on Facebook and Twitter! Catch up on CEU events, relevant articles and get to know more about your fellow CCAs! 🌱



You are the Best Marketer of the CCA Certification

The Ontario CCA Board and the Marketing Committee are continually looking for affordable means of raising the profile of the CCA program. However, you also hold some responsibility for promoting your designation to your customers. We have a potential sales force of 650+ with a province wide reach. There are many relatively simple things you can do to promote the CCA designation. We have published similar lists in past reports and newsletters but it is worth repeating:

- include your CCA-ON designation on your business card or signature line of your e-mails;
- on your telephone answering message identify yourself as a CCA (i.e. "Hello, this is John Smith, Certified Crop Advisor with XYZ Company, I am not available to take your call....")
- stick a CCA decal on your vehicle window;
- wear a jacket or shirt with the CCA logo embroidered on it to promote your affiliation;
- when giving an interview or writing a media article, be sure you are identified as a CCA;

- write an article for the CCA column in Ontario Farmer;
- speak to a school, college or university class about careers in agriculture and be sure to mention the CCA program. 🌱

New! CCA Online Store

The CCA Marketing Committee recently had a meeting where they developed a Marketing and Communications plan which set out activities for the next two years. Part of this plan was to create an online store, where individuals could purchase CCA t-shirts, mugs and window decals. The t-shirts are a navy blue polo style, and come in a wide range of sizes from small to XXL. The mugs are a dark blue and brown color made by Pavlo Pottery. There are two styles of decals offered, vehicle and office/business style. The vehicle decals are 3" circles while the office/business ones are rectangular and 6" in height and 4" in width. Order forms can be found on our CCA website under the "online store" section and can either be emailed to Laura at laura.fio@bell.net or mailed to 39 William Street, Elmira, ON N3B 1P3. 🌱

Relaunch of the CCA-CCA Mentorship Program

The CCA-CCA Mentorship Program was designed to provide new CCAs with the opportunity to engage and learn from experienced CCAs in the industry.

The program aims to provide a resource for new CCAs to become more familiar with the industry and the roles of the CCA. The program matches experienced CCAs from a variety of specialties with new CCAs. This allows mentees to match mentors based on areas of interest the mentee wishes to focus.

If you are interested in becoming involved as a mentee or mentor, please contact the CCA office. 🌱

CCA Mentorship Program

As the third year of the Board Mentorship Program has come to an end; the CCA Board would like to thank Leigh Hudson and Kelly O'Connor for their hard work over the past year as Board mentees. They each completed a special project during their time on the Board and presented their findings at the 2020 CCA Conference. 🌱

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Manage Your Resistance Now

Protect Your Land, One Field at a Time

By Tracey Baute, Field Crops Entomologist, Ontario Ministry of Agriculture, Food and Rural Affairs, Ridgetown, Ontario

Climate change and pest migration expected to increase insecticide resistance

While Canadian growers aren't dealing with insecticide resistance to the same extent as those in the Corn Belt in the midwestern United States (U.S.), Tracey Baute predicts insecticide resistance is going to increase in the future, so we need to proactively manage it now.

As the Field Crops Entomologist for the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Baute works with growers of every major field crop in the province, such as soybean, corn, alfalfa, dry bean, canola and cereals, and has dealt with just about every pest affecting those crops. Some of the pests are native and have expanded their range, and others are invasives from other areas. For both, proactive management strategies need to be found.

"In Ontario we have a three-crop rotation so we can avoid some mechanisms of resistance just by using cultural methods. At the same time, new pests come (i.e., western bean cutworm) that require foliar pesticides," says Baute. "In field crops, there's a perception that resistance isn't an issue, because growers can usually only afford to apply once annually."

Even though there is a perception that insecticide resistance isn't an issue, Baute says she is seeing evidence of it. One factor contributing to resistance development is that although insecticides are generally only applied once per year on field crops, some growers tend to spray the same active ingredient year after year. Adding to this repeated exposure of insects to the same active ingredient, the changing climate is allowing pests to expand their geographical ranges. For example, corn earworm, a major pest of corn and cotton in the U.S., blows into Ontario annually from the southern U.S. and is already resistant to active ingredients used in Canada, like pyrethroids.

In addition, in the U.S., the corn earworm is building resistance to *Bacillus thuringiensis* (Bt) genes, both the seed trait and a foliar spray, so the pest has already been exposed to all of the tools available to Canadians. Corn earworm can't yet overwinter in Ontario, but with climate change bringing warmer winter temperatures it may be able to soon. This would allow pests to survive from one season to the next, encouraging resistance development since they were already exposed to control methods used during the previous season.

Monitoring foliar insecticide resistance a challenge

Tracey says resistance to Bt corn has posed the biggest insect resistance problem in Ontario. "OMAFRA is keeping an eye on the different traits that control corn insect populations to see if they're still susceptible to the traits. There are some instances of resistance emerging."

Corn earworm blows in annually from the southern U.S. and is already resistant to active ingredients like pyrethroids because they are used in areas the insect came from.

It's more challenging to monitor resistance to foliar applied insecticides than transgenic¹ traits like Bt. "Some things could be mistaken for resistance developing: insecticide application issues, spray mechanisms or a rate used that didn't target the pest properly. There are lots of unknowns that can't be followed up on, especially if growers don't find out until months after application that they didn't get the control they wanted," says Baute.

Western bean cutworm and corn earworm both show resistance to Bt traits, which indicates that they have the potential to also develop resistance to foliar sprays. Therefore, foliar insecticides need to be rotated too.

Continued on page 12.



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Based on her work with growers around the province, Baute says that while they are probably less concerned about insect than weed resistance, they do recognize that it's important in scenarios where there are not enough effective insecticide groups to rotate.

Spider mites are one example – since there is only one active ingredient currently registered for spider mites on soybeans, there is no way of rotating products. This makes preventing resistance that much more crucial.

Use multiple strategies to preserve effective tools

There are several best management practices that Baute recommends to growers: scout early and often, apply insecticides only when the pest is both present and has reached thresholds, use cultural practices like crop rotation, and rotate insecticide groups. "If possible, switch up chemicals annually even if it costs a bit more. It will cost more in the long run if we lose the tools in the toolbox."

Baute also encourages growers not to solely rely on insecticides but to use biological controls when possible. "In soybeans, growers have become very aware of how much natural enemies can do for them, and are willing to hold off on spraying for them to work."

"Eventually we may need to bring in new technologies like using pathogens or viruses instead of just using synthetic pesticides if we're going to overcome resistance. It may take more time and effort and it will not always be 100 per cent effective, but it will extend the time these tools are effective."

"If possible, switch up chemicals annually even if it costs a bit more. It will cost more in the long run if we lose the tools in the toolbox."

For more information, visit ManageResistanceNow.ca

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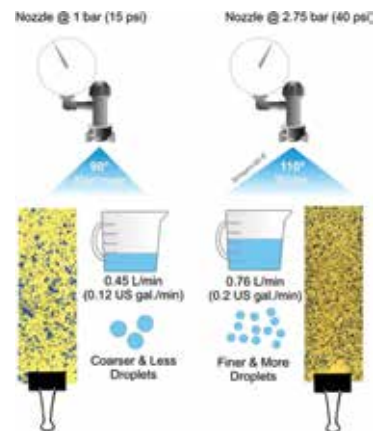
1. Transgenic plants contain a gene or genes from another organism inserted into the host plant. Bt corn varieties, for example, contain a gene from a bacterium (*Bacillus thuringiensis*) found in the soil that causes the transgenic corn to produce an insecticidal protein.

Summarizing the Pressure/Spray Relationship

Pressure is integral to nozzle performance. Reducing hydraulic pressure reduces nozzle flow rate, increases median droplet size, and typically reduces spray fan angle. Increasing pressure increases nozzle flow rate, reduces median droplet size and typically increases spray fan angle.

In extreme cases, too low a pressure can collapse the fan angle enough to reduce overlap and compromise coverage.

Using a flat fan nozzle as an example, a lower pressure increases the median droplet diameter, reduces the droplet count, reduces the nozzle flow rate and typically reduces the spray angle. Alternately, a higher pressure decreases the median droplet diameter, increases the droplet count, increases the nozzle flow rate and typically increases the spray angle.



Always plan to operate a nozzle in the middle of its recommended range so it can handle small changes in pressure during spraying (such as from a rate controller, or when changing PTO speeds on hilly terrain). Don't operate an air induction nozzle below 2 bar (30 psi), even if it's rated lower in the manufacturer's nozzle table. Most AI nozzles perform best at >4 bar (60 psi).

Pressure can be used on-the-fly to make minor changes to flow rate while spraying. This is how rate-controllers work to compensate for changes in ground speed and maintain a constant overall rate per planted area.

However, pressure should not be used to make significant changes to flow rate. It takes a 4x change in pressure for a 2x change in flow rate, so it's inefficient. Operating pressures at the upper or lower limit of a nozzle's range can have undesirable impacts on nozzle wear, median droplet size and swath uniformity.

For a more in-depth discussion of the relationship between spray pressure and nozzle performance, and how rate controllers work, check out <https://sprayers101.com/relationship/>.

It is far better to simply switch nozzles when a significant change in flow rate is required. 🌱



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