

Heartland

SEPTEMBER 2015

Soil & Crop eNews



Eyes on HSCIA's Huronview Demo Farm

OMAFRA Crop Talk | OSCIA News | Funding Opportunities
Fungicide Application Taking Off | County Tour Highlights | Website





**Regional
Communications
Coordinator**

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What a whirlwind of a summer! Since last issue, we had the Perth Twilight tour and Waterloo hosted the Forage Expo, then FarmSmart Expo in Elora, and then there was the OSCIA Summer Meeting and Tour in Woodstock, Wellington SCIA's tour in Elora, Huron's tour in Clinton and finally ZoneSmart held at Woodrill's, near Guelph. Then the Outdoor Farm Show, phew! If you missed out, you can read about most of the events in this issue. Such great events supporting a great industry in Ontario!

I've also been working with OSiM in Harriston to pull together a website for the counties that should be live at the time this magazine gets to your mailbox. Last year, the Heartland Regional board worked with the Advanced Agricultural Leadership Program (AALP) to help us improve our services to our members—and creating a website was one of their key recommendations. Thank you to OSCIA for funding a redesign to help us in our outreach efforts. The site includes related news from the area, upcoming events, and more—all viewable from your smartphone, tablet, or computer at www.heartlandsoilcrop.org

Once harvest is over, each county will be having their annual general meetings. They usually include a great meal and interesting speakers, so stay tuned for details from your local county. The Heartland Region is also putting on a Production Meeting on February 16th in Listowel and bringing in some top notch speakers too, so mark your calendars.

See you out and about!



Heartland Soil & Crop

*Proudly serving the members of Huron,
Perth, Waterloo and Wellington County
Soil and Crop Improvement Associations*
(Heartland Soil & Crop News is published 4 X a year)

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In This Local News Issue

FarmSmart Expo Photos , July 16th

Jake Munroe, OMAFRA's New Soil Fertility Specialist



Dr. Dave Hooker explains the 4R's



Great turnout for Research Trial Tour

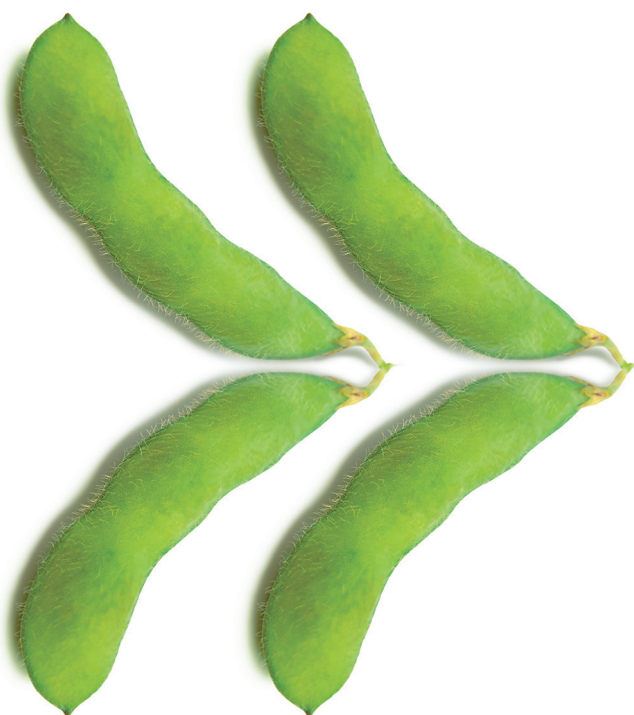


Cover photo: HSCIA President Stefan Zehetner speaks to three tour participants on Sept 9, 2015 (more on pages 6-7)

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**Climate is what you expect.
Weather is what you get.**
- Dr. Don McKay

Perth SCIA Twilight Tour, July 2nd



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Congratulations to all the county associations in Heartland Region for your excellent work this summer. All four of the events brought real value to farmers in the area. For this issue, I'm going to use this space to give you a brief rundown of the business discussed at the Summer Meeting held in Woodstock by President Elect Gord Green. After working this spring to develop a 5 year strategic plan, the finished report was discussed in detail to make sure we have a clear vision for the Ontario Soil and Crop Improvement Association's future. Following careful review, the plan was approved by the Board. Among many other things, the plan focuses on improving communication and I have a copy if anyone wants to see it. The financial audits were presented and discussed and a budget for the upcoming year was approved. Reports were given by Executive Director Andy Graham and the Program Managers. The most exciting news centred around the announcement of the cost –share por-

tion of GLASI. The Farmland Health Incentive Program now covers 8 best management categories, from cover crops, to on-the-go tire pressure adjustment and other equipment modifications, windbreak planting and building soil health through amendments. Plus, a new OSCIA website is being developed. There are plans to enhance member benefits with the possibility of soil test discounts for OSCIA members. Preliminary plans were made for the AGM in London in February. Lots of great things going on and many more details were touched on, trust me the executive and staff leave no stone unturned! If I have left out anything of interest to you please approach me and I'll try to expand on the issues. I'm at 519 848 5493 or my email is stuart.wright@ontariosoilcrop.org. Best of luck with the fall harvest and remember work hard but work safe!!

Have you completed a Farmland Health Check-Up?

Use this Coupon for a FREE Farmland Health Check-Up

For more information and a list of eligible CCAs visit the GLASI page of the OSCIA website (www.ontariosoilcrop.org). Don't see your regular CCA listed? They might not yet be participating in the delivery of the Check-Up. All CCAs interested in completing Farmland Health Check-Ups are able to do so by attending a brief orientation session offered by OSCIA. Email GLASI@ontariosoilcrop.org for additional details or to sign up.





EYES ON HURONVIEW

On September 9th, HSCIA held a workshop and tour of their new Huronview Demo Farm, just south of Clinton and adjacent to the county offices and retirement home. The day was a great success with the weather cooperating and a great turnout of local farmers. A large group also came from the Huron County Water Protection Steering Committee, representing local politicians and environmental groups.

The crowd rotated to four stations: Ian Jean (Ausable Bayfield Conservation Authority) discussed the past improvements that were made to the area, including a grassed swale to manage water, reforestation of marginal areas and a wetland constructed at the bottom of the field that filters runoff before it enters the Bayfield River. HSCIA President Stefan Zehetner discussed cover crops, while Bruce Kelly and Sam Bradshaw from Farm and Food Care showed off the European manure dribble bar they toured around Ontario this summer. It allows for fast and accurate application of manure into living crops, to minimize nutrient losses (see back cover). Lastly, Wayne Lyon from

Huron Tractor gave tips for setting up no-till drills. After dinner, Chris Roelands from Honeyland Ag Services gave a talk on soil and plant tissue testing (see sidebar).

Last year, HSCIA signed a 10-year lease with the county and plans to remediate the 50 acre field with cover crops and conservation tillage. Recent soil testing by ABCA's Ross Wilson reveals some low fertility levels. After decades in short-term rental contracts, the rolling field is in rough shape, with a long gully forming along the corner. A hundred years of farming surely takes its toll on the land.

In 1895, this very field became the site of the Industrial Farm and House of Refuge for the area's poor, disabled and elderly; this same soil supported hundreds of people that lived there. The original farm and the home accommodated about 75 people, who did the farm work. They grew hay, grains, fruits and vegetables as well as livestock such as hogs and cattle. Their surplus produce, eggs, milk and preserves were sold in town in order to support the House of Refuge.

So this field has a long history of supporting the public good. And now the HSCIA is demonstrating how no till and cover crop management can pay off for local farmers and for the environment. HSCIA President Stefan Zehetner says they want to "prove to people once again that no till is a viable option." Zehetner notes that while there is a lot of research coming from the States, there is a real need to see how these techniques will work with our local soils and shorter seasons.

The team took over the lease in September 2014 and planted a cover crop of cereal rye, dwarf Essex rape and radish. This spring, DeKalb 26-10 soybeans (donated by Monsanto and Hill & Hill Farms) were planted into the rye and the cover crop was burned off the next day. HSCIA members filmed themselves "planting green" and the video is now available on Youtube.com (Search: "Planting Green in Huron County").

HSCIA directors have formed a sub-committee to make the management decisions for the farm and they plan on putting the field back to winter wheat in 2016 in order to get some tile and erosion control work done.

They also got their hands on the field's Normalized Difference Vegetation Index (NDVI) maps that provide nearly a dozen snapshots of the crop over the growing season, even mapping the cover crop before planting. The maps were prepared by Doug Koch of Brussels Agromart, who has been providing these WinField maps to farmers for three years now.



"NDVI measures the amount of light reflected by the crop," Koch explains. "The more light interception, the better the plant is potentially converting sunlight into energy." Typically, these NDVI maps will correlate to yield maps and they can alert a farmer to trouble in the field. These maps can be loaded into Google Maps on any smart phone and with GPS accuracy within 50 feet this is an excellent tool for crop scouting. With more variable rate technology, these maps will also be helpful in the creation of precision management zones.

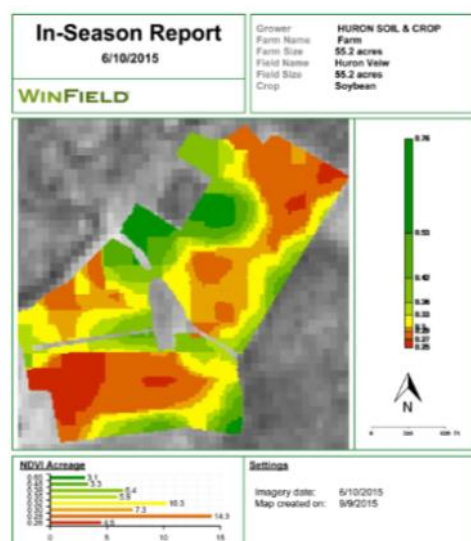
Ground truthing could show insect or nutritional issues, continues Koch. And in the case of the Huronview field mapping, based on his own scouting he believes the variability is a result of topography and drainage problems.

Despite the issues with the Huronview field, participants at the tour commented how great the soybeans looked. The HSCIA team would say that planting green into rye helped to keep sufficient moisture for May and, unlike many other areas in the region, this field received timely moisture for the rest of the season. No one knows what next year will bring, but HSCIA directors are committed to demonstrating these best management practices. It's really about farmers becoming their own experts.

Zehetner makes the call out, "if there are farmers out there that have something innovative, or something that's been working on their land that they want to demonstrate, get in touch."

It was a great event and for more information on HSCIA, visit www.huronsoilcrop.org

Huronview NDVI map in June



PLANT TISSUE TESTING AT HURONVIEW



Chris Roelands of Honeyland Ag Services in Ailsa Craig spoke about the importance of soil and plant tissue testing. He says that we all know our yields but we should know more. "When you add in soil testing or plant tissue testing, you're starting to ask 'how did we end up with this number?'"

Roelands says the soil test will show the bank of nutrients that could be available to the plant, but given the environment conditions or management practices, you can measure how the plant is growing in one condition versus another. "You can tease out how the *plant* feels about what's going on the field," he says.

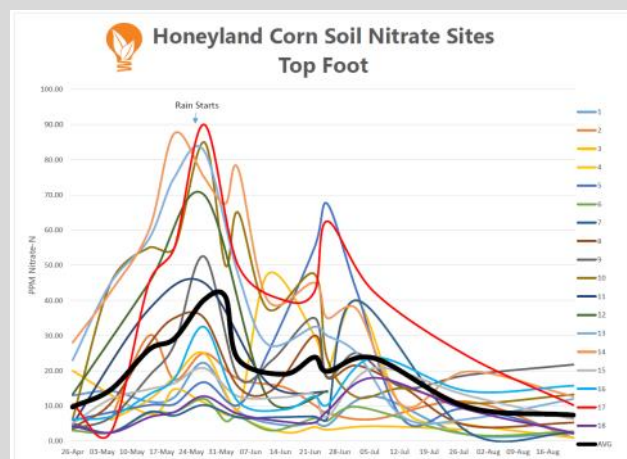
Plant tissue samples are taken from the most recently matured leaf on a plant and are analyzed for the whole spectrum of nutrient levels. Actual measurements are given in percentage or parts per million, and a comparison with optimal nutrient levels provides an interpretation below, along with sufficiency ranges. The Nutrient Balance Index is also an important indication of plant health, says Roelands.

At Huronview, Roelands compared soybean leaves from two sites where there was a noticeable difference in height in an accidental 'test strip' with no cover crop. Just a foot apart, 50 mature leaves were taken from each side. They were both good looking plants, just the swipe without the rye was taller, explains Roelands. "But as far as the tissue goes, the composition of those leaves were nearly identical." The testing was repeated three times over July and August without much difference and the last test on August 24th revealed a high nutrient imbalance with plummeting nutrient levels that were due to natural senescence.

Roelands went on to demonstrate the variability of nutrient levels both in the field and in the crop across the growing season by showing the results of his Nitrate Management research this summer. He chose 18 sites across various soil types and management systems, and collected soil and corn tissue samples from the same location nearly each week from April to August. In May, soil N levels in the fields were rising and rising until the rain started and they just plummeted, not peaking again until farmers could side dress.

The big question is, where did all the N go? Roelands couldn't find it in the top foot, so he started probing and testing deeper into the soil profile, but with no luck. There are concerns that in certain instances, the N may have escaped as a gas. And this really highlights the need for proper N management.

The big take away from Roelands' research is the amount of variability in N levels over a year. He would advocate for split nitrogen applications to coincide with critical corn growth periods but also stresses a pre-side dress N test to know what is actually needed. He concludes that a soil test will give a farmer an idea of what the plant is working with, but with the weather and other conditions throughout the year, there are many other impacts and limitations on nutrient uptake. More information found at honeylandag.com





Waterloo's Forage Expo

On July 7, the Forage Expo drew a whole host of equipment and exhibitors, along with a crowd that watched forage demonstrations all morning. Hosted by Ontowa Farms, near Elmira, it was a successful day despite the deluge of rain after lunch that drove everyone into the OSCIA sponsored exhibitor tent... and eventually home.

All the colours of the industry came out to showcase their new equipment, along with their tried-and-true implements. A rain in the early morning made it a difficult task for the balers especially, and with the June we had this year everyone was eyeing up the bale wrappers on display.

The directors of the Waterloo Soil and Crop Improvement Association and the Ontario Forage Council put on a great show as usual. Thanks to all to volunteers and sponsors! And a huge thanks to Ralph, Ryan, Phil and the whole Martin family for hosting the event.

The Waterloo Soil and Crop Improvement Association will be hosting an annual general meeting in the off-season so stay tuned for more details. For more info, contact Lynn at 519 648 2436 or her new email address: wlstrenzke@gmail.com. Their new website is www.waterloosoilcrop.org and AGM details will be posted there shortly.



Above: Ryan, Lori and son Isaac Martin (hosts) watch the baling demonstration, Bottom L-R: Secretary Lynn Strenske takes a photo of me taking a photo of her (haha!), Sherman Martin and sons deliver drinks to the field, while Stuart Wright moves bales.

Perth Soil & Crop Hosts Another Great Twilight Tour

On July 2nd, Perth Soil and Crop Improvement Association hosted their annual Twilight Tour at their Demo Farm at Bornholm. It was a beautiful evening and a good group of farmers came out for a hearty meal and a tour of the field crop trials (located just across from Huron Tractor on Road 44).

Peter Johnson (Wheat Pete) led a tour of his wheat plots and also highlighted the #Roots Not Iron cover crop trial that is taking place on the demo farm. As the trial was in wheat this year, it has now been planted into three different treatments: approximately 3 acres with no cover that will receive tillage, 3 acres with clover under-seeded with strip tillage and 3 acres with a mix from Quality Seeds that will overwinter and be 'planted green' in the spring. The 8 way mix includes 27% fall rye, 27% oats, 18% Austrian winter peas, 18% sunflower, 4% annual ryegrass, 2% crimson clover, 2% tillage radish and 2% phacelia put on at 110lbs an acre.

OMAFRA's Horst Bohner showed off his soybean trials, highlighting the growth stages of the plant and when to best time fungicide application and foliar feeding. One of his plots this year is testing 12 treatments of fungicides and timings (including Priaxor, Statego Pro, Allegro and Acapela from V6 to R4, and in furrow). His foliar feeding trials cover 15 variations of treatment, and he is trying stem cutting at V4 to see if it could grow back with more yields. (He noted that last year, this was not the case). Horst also highlighted his trials on 30 and 15 inch row soys, with various seeding rates, using both strip and no till.

Back inside, meteorologist Dr. Don McKay (former Director of the Canadian Environmental Modelling Centre) highlighted how climate patterns have changed and how they may be changing in the future. While there may be more risks of erratic weather resulting in droughts, floods or frost, there may also be opportunity for farmers to grow new crops and varieties here in Ontario.

A big thanks to Huron Tractor for allowing Perth Soil and Crop to use their facilities! Perth SCIA President Bill Miller announced the launch of its website at www.perthsoilandcrop.ca and he can now be found on Twitter @perthsoilncrop. An Annual General Meeting is scheduled for January 21, 2016. Stay tuned for more details.





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Options for IP Soybeans Highlighted at Wellington SCIA Tour

Wellington Soil and Crop Improvement Association held their annual tour this year on September 8 at the Elora Research Station, in conjunction with the Ontario Soybean and Canola Committee.

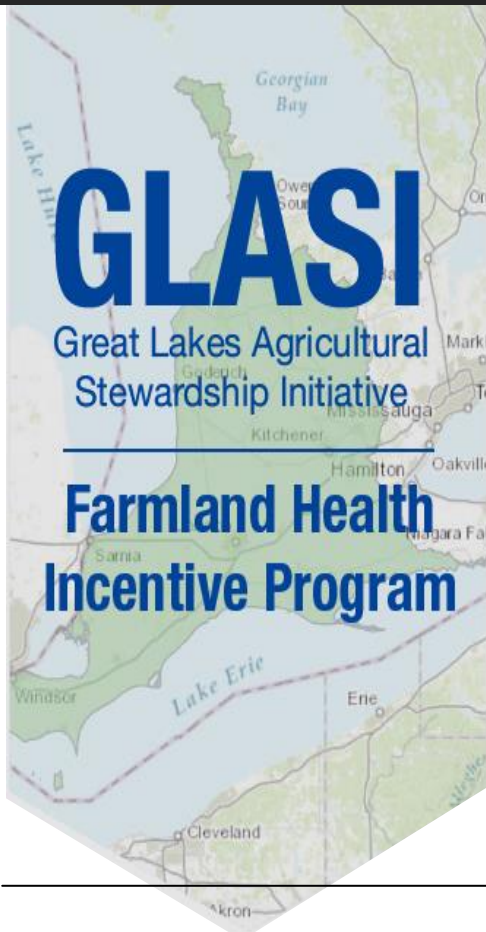
U of G's Dr. Istvan Rajcan toured participants through the OSACC trials and explained the process of seed breeding and selection for OAC varieties. Rajcan explained that because private industry has focused so heavily on GM varieties, the Ontario Agriculture College has worked on ensuring there are sufficient IP soybean varieties for Ontario farmers. They've done such a good job that the OAC label has become a sought after brand in Japanese markets!

After lunch (provided by OSACC), OMAFRA's Mike Cowbrough gave a fast-paced and informative presentation as he showed us his plot of weeds in IP beans. Using test checks throughout the plot, he demonstrated a variety of

herbicides, timings, rates and combinations. The ragweed was out in full force (should have brought Reactine!) but Mike said not to be fooled: since ragweed emerges late, it likely won't influence yields.

Horst Bohner concluded the tour with his fertility plots in soybeans. Trials have been conducted that have 4 different soil test levels for P and K. A planter was then used to apply 5 different starter programs on each background level. This project will continue for at least 6 years but so far the results show that a minimum soil test (background level) is essential to attain high soybean yields. So it looks like building and maintaining soils is the best approach for soybeans.

The Wellington SCIA will be having their AGM on December 4th in Alma, from 9-3. More details will follow by email to members or check out www.wellingtonsoilcrop.org or just contact Linda: linda.mcfadden@wightman.ca / 519-362-2094



Once you've met with a CCA to complete the Farmland Health Checkup (see page 5) and if you've completed an EFP in the last five years (see page 27), then you are eligible for cost share funding that will cover 8 categories of Best Management Practices (BMPs)

1. Cover Crops
2. Adding Organic Amendments
3. Crop Nutrient Plans
4. Buffer Strips
5. Field Windbreaks/Windstrips
6. Tillage and Equipment Modifications
7. Erosion Control Structures
8. Fragile Land Retirement

Projects must be done by December 15, 2015 so don't put this off! See www.ontariosoilcrop.org/en/programs.htm for all the details.

Fungicide Application Taking Off?



For four years now, Wellington farmer Brad Kalbfleisch has called his friend Tim Nelson from Zimmer Air Services to spray Headline on his fields; and after combining Brad's field in 2013, neighbour (and WSCIA Director) Ron Rody was also convinced.

Some farmers are seeing the benefit of applying fungicide, because controlling the white mold in soybeans and mycotoxins of Northern corn leaf blight in corn also keeps the crops greener longer. As for a yield advantage, "there's not supposed to be, but there is," says Kalbfleisch. And Rody agrees, seeing a 20 bu/ac increase last year in his corn over his long-term average.

Testing Priaxor last year at Luymes Farms, Rob Luymes wasn't so enthusiastic. He saw a 10 to 14 bushel increase compared to his check strips, but after factoring in the cost of application and the added cost of drying down an extra 4% moisture, he broke even. "It was a wash," he said, but also admits that 2014 was an abnormally cold and wet year. Well, hopefully abnormal.

Still, many farmers are having success with it. Good Crop Services, a full-service ag retailer based near New Hamburg, apply fungicide on about 11,000 acres of tassled corn each year across Waterloo, Perth and Oxford counties. This year they bought a Hagie sprayer with 132' aluminum booms to get the job done right. With 12" tires and 4-wheel-steer, trampling is minimized, says Will Sebben, Sales Agronomist at Good Crop.

Sometimes the test strip is just a few rows that were missed, and then the farmer can see the difference even from the combine cab, says Sebben. He explains that the fungicide provides better disease control late in the season, and a healthier field will yield higher quality product, on top of just plain higher yields.

The helicopter was quite a sight to behold. With a small carrying capacity, the chopper lands *on* the sprayer trailer for a refill after every 40 acres (or every 8 minutes). In 60 foot passes, it applies under 4 gallons of water and chemical per acre, with the argument that the wind from the rotors presses the fungicide down onto the crop.

Pilot Tim Nelson says he can do 1400 acres a day with the chopper. "Yeah, well that would be a really long day in the *sprayer*," sighs Luymes.

Nelson grew up on a farm, but always wanted to be a pilot. "He didn't get too far from his roots," says Kalbfleisch. And this is just one of the many opportunities to use aerial technology in agriculture.

As for the use of fungicide, some farmers might say it doesn't fit in their system. As they work to increase the mycorrhizal fungi in their soil to improve networks for mineral nutrient uptake to plant roots, they may not be so keen on applying a fungicide. So there's another topic for the coffee shop!



Above: Field near St. Mary's distinctly shows fungicide applied strips staying green longer. Below: New Hagie Sprayer, **More at www.goodcrop.net**



CROP TALK

Volume 15, Issue 3

OMAFRA Field Crop Specialists — Your Crop Info Source

September, 2015

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Albert Tenuta, Field Crop Pathologist
Dawn Pate, Manager

This document is provided for your information only. Please refer to Ontario Regulation 63/09 under the Pesticides Act for details on requirements.

Revised Regulation under the Pesticides Act What corn and soybean growers need to know

As of July 1, 2015, new requirements for buying and using neonicotinoid-treated corn and/or soybean seed are being phased in to allow growers to adapt to new requirements.

This year – to prepare for the 2016 growing season

- **Beginning fall 2015** – Mandatory Integrated Pest Management (IPM) training will be available for FREE until September 2016.
- **Seed Amount Declaration** will be needed by growers to purchase and use

Neonicotinoid Insecticide (NNI) treated seed for the 2016 growing season of up to 50% of total area to be planted with grain corn and 50% of total area to be planted with soybeans (calculated for each agricultural business operation).

- To exceed these limits, a **soil inspection pest assessment report** will need to be completed. For the 2016 growing season, growers can complete their own pest assessment.

2016 – to prepare for the 2017 growing season

- **Throughout 2016:** IPM training continues for free until September 2016 if growers intend to plant NNI-treated corn or soybean seed after August 31, 2016.
- Growers will be required to 1) provide their **IPM training number** to their seed vendors, 2) complete a **written declaration** that IPM principles have been considered and 3) complete a **pest assessment** in either the form of:
 - **soil inspection pest assessment report** which must be completed by an IPM-trained grower or professional pest advisor or
 - **crop inspection pest assessment report** to be completed by a professional pest advisor.

To be done every year by growers

- Follow the Pest Assessment Guideline for all required pest assessments and requirements for preparing reports.
- Consider IPM strategies to decrease the risk of early season insect damage. Growers will be required to verify that they have considered IPM strategies when they order NNI-treated seed.
- When planting NNI-treated seed, read and follow all instructions set out on the seed tag.
- Growers will be required to maintain current records when they order and plant treated seed and retain records for at least two years.

To learn more visit [ontario.ca/neonics](#)
or call 1-877-424-1300.

Neonicotinoid regulations for growers

What corn and soybean growers need to know about new rules for neonicotinoid-treated seed.

The following is from a document entitled *Neonicotinoid regulations for growers* located at Ontario.ca/neonics

Class 12 pesticides

New rules for the sale and use of neonicotinoid-treated seeds in Ontario came into effect on July 1, 2015, and will be phased in over a period of time.

New class of pesticides

The provincial government is responsible for classifying pesticides and regulating their sale, use, transportation, storage and disposal.

Treated seeds are seeds that have been coated with a pesticide. The new regulatory requirements created a new class of pesticides—Class 12—for corn and soybean seeds treated with the following neonicotinoid insecticides:

- Imidacloprid
- Thiamethoxam
- Clothianidin

This new class of pesticides applies to corn seed grown for grain or silage and soybean seed.

The regulation does not apply to popping corn, sweet corn or corn used for the production of seed. Nor does it apply to soybean seed planted for the purpose of producing a soybean seed crop of certified status under contract. Corn seed and soybean seed treated only with fungicide are not classified as Class 12 pesticides under the regulation.

Farmers will only be able to buy and use varieties or hybrids of neonicotinoid-treated seeds that vendors have put on the “Class 12 Pesticides List”. The list will be posted online by the Government of Ontario by August of each year.

The regulation does not include requirements for the transport and storage of Class 12 pesticides.

Farmers must use a neonicotinoid-treated seed in accordance with the directions set out on the label or tag by the federal government.

New requirements for farmers

New requirements for farmers are being introduced to ensure that neonicotinoid-treated corn and soybean seeds are used only when there is a demonstrated pest problem. These requirements will be phased-in over a period of time to allow farmers to adapt.

If you will not be planting neonicotinoid-treated corn or

soybean seed, you will not be subject to any new requirements under this regulation.

From August 31, 2015 to August 30, 2016, in preparation for the 2016 planting season, farmers will have the option to take one of two courses of action to purchase and use neonicotinoid-treated corn and/or soybean seed, depending on the amount they intend on planting.

As an incentive to achieve early reductions in the use of neonicotinoid-treated seed, if farmers plant neonicotinoid-treated seeds on *50 per cent or less* of the total area of where they plant corn or soybeans, they will not have to conduct a [pest assessment](#).

Note that the calculation is completed separately by commodity for each of corn and soybeans. Farmers will also need to confirm, in writing, that they are not buying or using more than what is required to plant 50 per cent of this area. This document is called a [Seed Amount Declaration](#) and farmers will need to sign it and give it to the sales representative(s) or seed vendor(s) or to the custom seed treater they use to have their seed treated with neonicotinoid insecticides. They can only plant neonicotinoid-treated seeds in the application area (or areas) on their farm property identified in the Seed Amount Declaration.

If farmers want to buy and plant neonicotinoid-treated seeds on *more than 50 per cent* of the total area of their corn or soybean crop, they will need to complete a [pest assessment report](#) and provide it to the sales representative(s) or seed vendor(s) from which they purchased the seeds or to the custom seed treater they use to have their seed treated with neonicotinoid insecticides. With this option, farmers will not need to submit a Seed Amount Declaration for the commodity for which they complete a pest assessment report.

On or after August 31, 2016, in preparation for the 2017 planting season, if farmers want to buy and use *any amount* of neonicotinoid-treated seeds, they will be required to:

1. Complete the new [integrated pest management](#) (IPM) training
2. Complete a pest assessment report
3. Sign a declaration called an [IPM Written Declaration Form](#) stating that they have considered [IPM principles](#).

Farmers will need to submit these pieces of information, along with their IPM training certificate number, to the sales representative(s) or seed vendor(s), including direct-to-farm seed vendors, from whom they purchased the seeds or to the custom seed treater used for treating seeds with neonicotinoids.

They can only plant neonicotinoid-treated seeds in the application area (or areas) on their farm property identified in their pest assessment report.

Farmers using the services of a custom seed treater will still be responsible for complying with the regulation and must follow the same requirements and timelines as they would if they were buying seeds from a vendor/treated seed sales representative. All relevant documentation will need to be provided to the custom seed treater.

There are no requirements for using non-treated seed or fungicide-only treated seed. Using non-treated seed can help protect pollinators and reduce the impact of neonicotinoids on the environment.

Seed Amount Declaration

A Seed Amount Declaration is a written commitment to only plant *50 per cent or less* of the total area of your farm operation with neonicotinoid-treated corn or soybean seed.

More information on the new requirements at Ontario.ca/neonics

Note that the calculation is completed separately by commodity for each of corn and soybeans. In order to purchase neonicotinoid-treated seed, this declaration must be provided to the person from whom farmers are purchasing their seed or to the custom seed treater. The declaration must include:

- the acreage of land on which farmers will plant treated and untreated corn or soybean seed before August 31, 2016 at all of the farm properties that are used for their agricultural operation
- the location of each farm property or a legal description of the property
- the total acreage of all of the application areas where farmers will plant neonicotinoid-treated seeds before August 31, 2016 and all of the farm properties that are used for the agricultural operation.

A [Seed Amount Declaration](#) is valid only for seed intended to be planted in the 2016 growing seasons.

Integrated pest management training

Integrated pest management (IPM) is an approach to managing pests that is environmentally and economically sustainable. IPM promotes the use of different methods to prevent and reduce the risk of pests and encourage beneficial insects, including pollinators. Under IPM, pesticides are used as a last resort to control pest problems.

Starting on August 31, 2016, successful completion of a new IPM training course will be required in order to purchase and plant neonicotinoid-treated corn and soybean seed. Farmers will need to provide proof that they have completed this training by submitting their certificate number to a sales representative, vendor or custom seed treater.

Certification is valid for five years (i.e. farmers will only need to take the course once every five years).

The IPM training will be unique in that it will include training on the importance of pollinators in the ecosystem and how to protect them from pesticide exposure. It will also include training on identifying pests and pest scouting methods, and alternative methods to using pesticides.

The new IPM course will be available starting in fall 2015, and will run continuously thereafter. Following successful completion of the course, farmers will receive a certificate number.

IPM training

Farmers will be able to take training in a classroom at various locations or online through the University of Guelph, Ridgetown Campus. To encourage participation, IPM training will be offered **free of charge** until September 2016. More information will be available in September 2015.

Farmers do not need to take IPM training if they are a farm owner who hires people to purchase and plant seeds. In this case, the person they hire (e.g., farm manager or supervisor) will need to take IPM training.

An IPM trained person can supervise up to seven people who are planting seeds on the farm.

If farmers do not intend to buy and plant neonicotinoid-treated seeds, they are not required to take IPM training or file a pest assessment report. Non-treated seed or fungicide-only treated corn and soybean seed, for example, are not Class 12 pesticides. Farmers do not need IPM training to purchase or plant these types of seeds.

Pest assessment report

A pest assessment report is documented proof that there is a pest problem that requires the use of neonicotinoid-treated seed to control the pests.

In order to purchase neonicotinoid-treated corn and soybean seed, a person (i.e., farmer) must provide a pest assessment report to a vendor, sales representative or custom seed treater.

There are two kinds of pest assessments: soil inspection and crop inspection.

Soil inspection is a method that confirms the presence of an average of two or more grubs or one wireworm in soil at a farm property (see [Conducting A Pest Assessment for Use of Class 12 Pesticides](#) for more information on pest thresholds). A report must verify that pest thresholds have been met or exceeded.

A farmer can choose when to do soil pest scouting. This is often done in the spring or fall.

From August 31, 2015 to August 31, 2016, any farmer can do soil pest scouting, perform a pest assessment and prepare a report.

Starting August 31, 2016 until August, 31, 2017, farmers will be able to perform a pest assessment and prepare a report if they have a certificate number from completion of the new integrated pest management (IPM) training.

Starting on August 31, 2017, a requirement that a professional pest advisor conduct a **soil inspection** pest assessment and prepare a report will begin to be phased in. This requirement is being phased in over time on a geographic basis to best target regions with the greatest pollinator mortality rates.

For the soil pest scouting method an [Inspection of Soil – Pest Assessment Report](#) will need to be completed and signed.

Crop inspection assessment is a method that confirms:

- at least a 15 per cent stand loss in corn caused by pests
- at least a 30 per cent stand loss in soybean caused by pests.

If a farmer believes they have experienced crop damage from pests, they can choose to have a **crop inspection** pest assessment conducted. A professional pest advisor will be required to conduct this assessment as this method requires specialized knowledge of pests and crop damage.

Pest assessments must be done according to the [Conducting a Pest Assessment for Use of Class 12 Pesticides](#) guideline.

The guideline outlines how assessments are to be conducted, sets out the minimum thresholds, and explains how to calculate the application area where the neonicotinoid-treated seeds are to be planted at the farm property.

After August 31, 2016, a **pest assessment report** must be completed each year in order to purchase and use neonicotinoid-treated seeds. A **pest assessment report** can be used for the purchase of neonic-treated seed as long as the assessment was conducted within the 12-month period prior to the sale or transfer of the seed.

For the crop damage pest assessment method, an [Inspection of a Crop – Pest Assessment Report](#) will need to be completed and signed by a professional pest advisor.

Soil inspection pest assessment

Unless an [Inspection of Crop – Pest Assessment Report](#) was done on the farm property, a **soil inspection** pest assessment must be done each year in order to purchase and plant neonic-treated seed. The requirement to have a professional pest advisor perform a **soil inspection** pest assessment is being phased in over time on a geographic basis to best target regions with the greatest pollinator mortality rates.

To prepare for the 2016 growing season, anyone,

including farmers, can perform a **soil inspection** pest assessment with no special certification or training.

Starting August 31, 2016 (for the 2017 growing season) only those with IPM training can conduct a soil inspection pest assessment and prepare an [Inspection of Soil - Pest Assessment Report](#). If a farmer has received IPM certification, they can perform the soil inspection pest assessment.

Starting on August 31, 2017, a requirement that a professional pest advisor conduct a **soil inspection** pest assessment and prepare a report will begin to be phased in. This requirement is being phased in over time on a geographic basis to best target regions with greatest pollinator mortality rates.

Once the professional pest advisor requirement is phased in, a professional pest advisor will need to perform or supervise the assessment and complete a report at least once every three years. A **pest assessment report** can be used for the purchase of neonic-treated seed as long as the assessment was conducted within the 12-month period prior to the sale or transfer of the seed.

For those years that the farm property does not land under a Schedule, the **soil inspection** can be conducted by the IPM certified grower. Refer to page 10 of this issue for the [schedule](#) of the counties and regions of Ontario to know when professional pest advisors are required for their area.

It is important to remember that a **crop inspection** assessment must always be done by a professional pest advisor as this form of assessment requires specialized knowledge of pests and crop damage.

Approved professional pest advisors

A professional pest advisor is an individual who fits one or more of the following criteria:

- recognized as a Certified Crop Advisor (CCA) certified by the American Society of Agronomy and a member in good standing of the Ontario Certified Crop Advisor Association
- a registered member (i.e. a professional agrologist) under the *Ontario Institute of Professional Agrologists Act 2013* with a field of practice relating to pest control or the production processing and protection of agricultural, horticultural and related products and supplies
- a person who holds an authorizing certificate issued by an out-of-province regulatory authority in respect of a field of practice similar to a professional agrologist or CCA
- a person who has the qualifications equivalent of a CCA or professional agrologist as determined by the Ministry of the Environment and Climate Change.

Starting August 31, 2017, a professional pest advisor must be independent, in that they cannot derive a financial benefit from a person who manufactures or sells a

Class 12 pesticide or a pesticide that is used to treat a seed so that it becomes a Class 12 pesticide.

Submitting a complete pest assessment report

Farmers will need to provide the completed **pest assessment report** to the vendor and/or the treated seed sales representative from whom they purchase their neonicotinoid-treated seeds. If they use the services of a custom seed treater to have seed treated with neonicotinoid insecticides, they will need to provide the completed report to the custom seed treater. They must also keep a copy of the report at their farm for at least two years.

The vendor or custom seed treater will then submit the **pest assessment** report to the Ministry of Agriculture, Food and Rural Affairs using the address specified on the form.

Conducting a pest assessment for use of Class 12 Pesticides - O. Reg. 63/09 under the Pesticides Act

Visit Ontario.ca/neonics for more information on Conducting a Pest Assessment for Use of Class 12 Pesticides.

As of July 1, 2015, regulatory amendments under the Pesticides Act and Ontario Regulation 63/09 (O. Reg. 63/09) are in effect to reduce the impact that neonicotinoid insecticides have on pollinator health. The regulation includes a new class of pesticides for corn and soybean seeds treated with imidacloprid, thiamethoxam and clothianidin (referred to as Class 12 pesticides).

For fall of 2015 to order seed for 2016

If intending to plant *50 per cent or less* of the total area of where corn or soybeans are planted, you will not have to conduct a [pest assessment](#). Instead, fill out the Seed Amount Declaration, indicating where the Class 12 seed will be planted and provide it to your seed representative (s) or seed vendor(s) at the time of seed order.

If intending to plant more than 50 per cent of the total area of where corn or soybeans are planted, then a **soil inspection** pest assessment is required prior to ordering Class 12 corn or soybean seed. If the **soil inspection** pest assessment meets threshold, bring a completed [Inspection of Soil – Pest Assessment Report](#) to your seed representative(s) or seed vendor(s) at the time of seed order.

Planning ahead for 2017 growing season and beyond

If intending to plant any neonic-treated corn or soybean seed (Class 12 pesticide) in 2017 and beyond, then a

pest assessment is required each year prior to seed order. If the pest assessment meets threshold, bring a completed pest assessment report to your seed representative(s) or seed vendor(s) to the time of seed order. A **pest assessment report** can be used for the purchase of neonic-treated seed as long as the assessment was conducted within the 12-month period prior to the sale or transfer of the seed.

Pest Assessments

There are two different pest assessment methods; 1) Soil Inspection or 2) Crop Inspection. One of these pest assessments must be completed each year to purchase Class 12 treated seed.

Thresholds for use of a Class 12 pesticide

Soil Inspection Thresholds

The threshold for wireworms to purchase and use (plant) NNI corn or soybean seed treatment (Class 12 pesticide) is an average of 1 wireworm averaged over 5 scouting locations.

The threshold for grubs to purchase and use (plant) NNI corn or soybean seed treatment (Class 12) is an average of 2 grubs averaged over 5 scouting locations.

Crop Inspection Thresholds

The stand loss threshold for a corn crop is 15 percent.

The stand loss threshold for a soybean crop is 30 percent.

Pest assessment method 1 – Soil Inspection

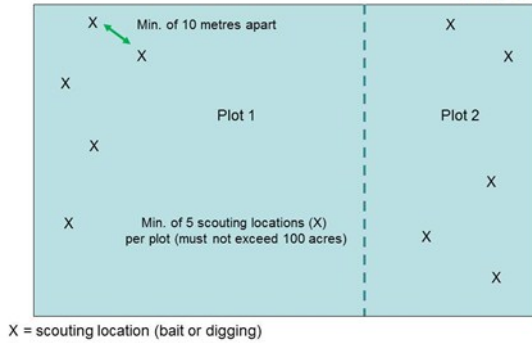
There are two ways to inspect your soil for pests:

- **Baiting** for wireworms
- **Digging** for grubs and/or wireworms

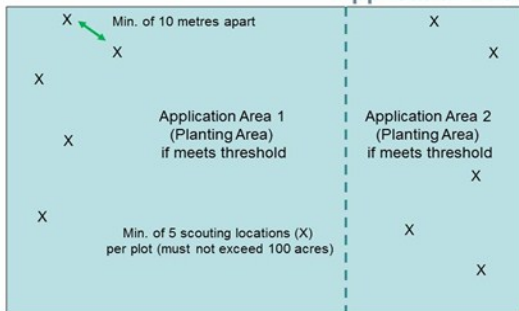
For both methods, follow these scouting requirements:

1. Divide each field where neonic-treated corn or soybeans is intended to be planted **into 100 acre or less “plots”**. A **soil inspection** must be conducted on each 100 acre or less “plot”.
2. Inspect **a minimum of five** scouting locations in each plot. The scouting locations must be **at least 10 metres apart** from each other. Each scouting location involves setting up a bait trap or digging in the soil. See example diagram.
3. If a **soil inspection** meets threshold for that plot, the plot becomes the application area where the neonic-treated seed (Class 12 pesticide) can be planted.

Example: 150 Acre Field = 2 Plots



Pest Assessment Method 1 – Application Area



When to perform a soil inspection

You can conduct a **soil inspection** in either the fall or the spring when wireworms or grubs are likely to be at the soil surface.

Fall: Scout before you order seed. Typically, scouting should occur between early September and mid-late October as long as soil temperatures are moderate to cool and there has not been a hard frost.

Spring: Scout before you plant or shortly after planting. Scouting can be done when soil temperatures reach 10°C and until soil temperatures reach approximately 25°C.

Baiting for wireworms

Bait traps are the more effective method of scouting for wireworms as they attract wireworms to the bait. You can also dig for wireworms (as explained under “Digging Method”) though digging may not be as effective.

Where to bait for wireworms

Establish bait stations in higher risk area of the plot. Examples include:

- Sandy or silty areas
- Patches with grassy weeds
- Southern-facing field edges where the sun warms the soil

Ensure you are baiting in at least five scouting locations within your plots of no more than 100 acres each.

How to bait for wireworms

To bait for wireworms, you will need:

- A large container or backpack to carry supplies
- A shovel
- Bait (enough for five scouting locations within each plot). Per scouting location, you will need:
 - 1 cup of all-purpose flour, **or**
 - 1 cup equal parts untreated corn, wheat and beans, soaked overnight, **or**
 - 1 cup of freshly chopped potatoes or sweet potatoes.
- Measuring cup
- Flag
- Marker
- Notebook and pencil
- Black plastic garbage bags
- Global Positioning System (GPS) or paper and a pencil to map out scouting locations for your assessment report.

After dividing your property into plots and selecting at least five scouting locations **at least 10 metres apart**, at each location:

1. Dig a hole at each station, approximately 15cm x 15cm x 15cm.
2. Take and place bait ingredient at bottom of hole. Example baits include:
 - 1 cup of all-purpose flour or
 - 1 cup soaked overnight equal parts untreated corn, wheat and beans, or
 - 1 cup of freshly chopped potatoes (or sweet potatoes)
 - Consider testing different bait ingredients to see which is most effective for your soil and species of wireworm.
3. Bury the bait, breaking up any soil clumps and mound the soil to prevent standing water.
4. If the soil is still very cool, consider placing a plastic garbage bag over the bait to speed up fermentation.
5. Place a flag at the scouting location to make it easier to find later. Number the flag with the marker and record the scouting location's number and type of bait to reference later.
6. Consider placing more than the required five bait locations in each plot due to the potential risk of predators like skunks and raccoons that may dig up the baits. You need to be able to report on the results of five bait locations for each plot.
7. Sketch a map of your scouting locations for your Pest Assessment Report.
8. Wait 7 to 10 days. During that time, the bait will ferment and release carbon dioxide that will attract nearby wireworms.
9. After 7 to 10 days, dig the bait out and count and record the number of wireworms at each scouting location.
10. Complete the [Inspection of Soil - Pest Assessment Report](#), including the number of wireworms found at each scouting location. If the soil inspection threshold is reached, you are able to purchase and plant Class 12 seed in that plot area of 100 acres or less.

Example Calculation: Wireworms

Plot	Bait 1 (Scouting location 1)	Bait 2 (Scouting location 2)	Bait 3 (Scouting location 3)	Bait 4 (Scouting location 4)	Bait 5 (Scouting location 5)	Total	Average
1	4	0	0	2	1	7/5	= 1
2	5	0	0	0	0	5/5	= 1
3	0	0	1	0	2	3/5	= 0

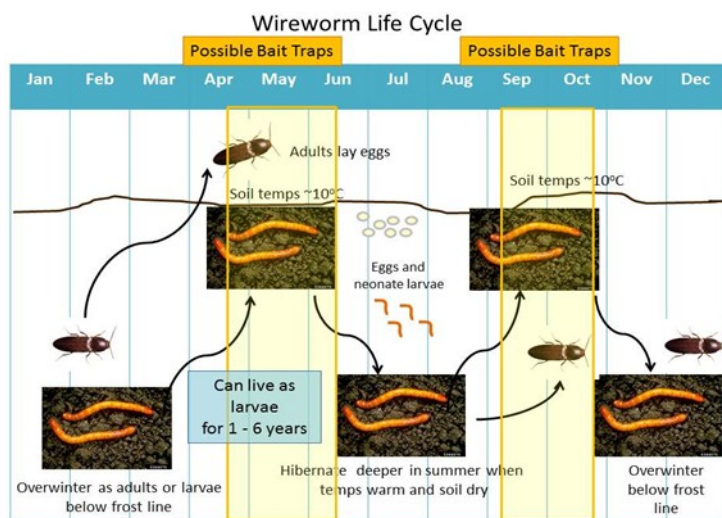
Plot 1 and 2 meet wireworm threshold. If the plot is less than 100 acres and has one assessment roll number, the plot may be included as an application area in a Pest Assessment Report.

Plot 3 does not meet threshold and cannot be planted with a Class 12 pesticide.

Bring your completed [Inspection of Soil – Pest Assessment Report](#) to your seed representative(s) or seed vendor(s). A **pest assessment report** can be used for the purchase of neonic-treated seed as long as the assessment was conducted within the 12-month period prior to the sale or transfer of the seed.

Soil conditions can impact bait effectiveness. If soil temperatures change quickly within the 7 to 10 day wait period (such as too warm or too cold) or the soil dries too quickly, the baits may not successfully attract wireworms. Consider conducting the soil inspection again once conditions improve.

The threshold for wireworms to purchase and use (plant) NNI corn or soybean seed treatment (Class 12) is an average of 1 wireworm averaged over 5 scouting locations.



Digging method for grubs and wireworms

To conduct a **soil inspection** for the presence of grubs or wireworms, dig the soil up in five scouting locations within each plot of 100 acres or less. Historically, digging has been more successful at finding grubs than wireworms.

Where to dig

Consider digging for grubs and wireworms in high risk areas first, like:

- Sandy knolls
- Near treelines
- Areas where there have been patchy weeds
- Gaps in stand

If crop is already planted, consider looking for wilting plants/gaps in the stand and dig up the next surviving plants in the row.

Ensure you dig in at least five scouting locations for each 100 acres or less ("plot"). There is no maximum number of scouting locations; you only report on the average of five digs.

How to dig for grubs and wireworms

To dig for these pests, you'll need:

- A shovel
- A notebook and pencil
- A Global Positioning System (GPS) or paper and a pencil to map out scouting locations for your assessment report.

After dividing your property into plots of 100 acres or less and selecting scouting (digging) locations (each scouting location must be at least **at least 10 metres apart** in all directions):

1. Dig a hole approximately 30 cm wide, 30 cm long, and 7 - 10 cm deep.
2. Sift through the soil, breaking up any clumps. Look for grubs or wireworms in soil or roots of plants dug up.
3. Record the number of grubs or wireworms found at each scouting location
4. If the **soil inspection** threshold of an average of one wireworm or two grubs averaged over five scouting locations has been met, the plot that the assessment was done on is now the application area. Neonic-treated corn or soybean seed (Class 12 pesticide) can be purchased and planted in that plot of 100 acres or less. Complete the [Inspection of Soil - Pest Assessment Report](#) and provide it to your seed representative(s) or seed vendor(s) at the time of seed order.

Example Calculation: Grubs							
Plot	Scouting location 1	Scouting location 2	Scouting location 3	Scouting location 4	Scouting location 5	Total	Average
1	0	1	1	0	1	3/5	= 0
2	2	0	8	0	3	13/5	= 2
3	3	2	2	4	1	12/5	= 2

Plot 1 does not meet grub threshold and cannot be planted with a Class 12 pesticide.
Plots 2 and 3 meet grub threshold. If the plot is less than 100 acres and has one assessment roll number, the plot may be included as an application area in a Pest Assessment Report.

Grub Scouting

Possible Spring Digging					Possible Fall Digging				
Insect	Jan-Mar	April	May	June	July	August	Sept	Oct	Nov-Dec
European chafer	3rd instar larvae – overwintering	3rd instar larvae – feeding and pupation	Adults emerge, mate & lay eggs – no feeding	1st instar larvae – feeding	2nd instar larvae – feeding	3rd instar larvae – feeding	3rd instar larvae – overwintering		
June beetle	Adults overwinter in soil	Adults emerge, mate and lay eggs	Eggs hatch – 1st instar larvae – feeding	2nd instar larvae – feeding	3rd instar larvae – overwintering				
Japanese beetle	3rd instar larvae – overwintering	3rd instar larvae – feeding	Adults emerge, mate & lay eggs – no feeding	1st instar larvae – feeding	2nd and 3rd instar larvae – feeding	3rd instar larvae – overwintering			

Figure 13-1. Life Cycles and Feeding Periods for Common Grubs (European Chafer, June Beetle, Japanese Beetle). Damaging stages are shaded.

Source: Agronomy Guide for Field Crops, OMAFRA Publication 811 29

Pest assessment method 2 – Inspection of a crop

In corn or soy fields that **were not** planted with neonicotinoid-treated seed, if stand loss or damage occurs in spring due to wireworms, grubs, seedcorn maggot, bean leaf beetle (soys only) or corn rootworm (corn only), you have the opportunity to have a professional pest advisor conduct a **crop inspection** pest assessment and complete an [Inspection of a Crop – Pest Assessment Report](#).

The definition of stand loss is either through failure of plants to emerge or lack of plant vigour, resulting in stunted, damaged or dead plants.

Crop Inspection

If your corn or soybean crop has experienced damage and you suspect wireworms, grubs, seedcorn maggot, bean leaf beetle (soy only) or corn rootworm (corn only) were the cause:

1. Contact a Professional Pest Advisor to arrange for an assessment.
2. Identify an area of the farm property (having one assessment roll number) that needs the crop inspection done (stand loss has occurred in an **untreated** corn or soybean area of the field). The area to be assessed (plot) must be no larger than 100 acres.
3. The Professional Pest Advisor will conduct an assessment of the plot and will:
 - Identify five stand loss locations of the plot and compare them with five areas of non-stand loss locations of the plot
 - Consider both absent plants and damaged/poor vigour plants:

- ◇ For assessments in corn the Row Plant Technique is used (1/1000 acre measurements).
- ◇ For assessments in soybeans the Row Plant Technique or Quadrat Technique (Hula hoop/square frame) are used.

Full details on how to perform a **crop inspection** can be found in the guidebook: [Conducting a Pest Assessment for Use of a Class 12 Pesticide](#).

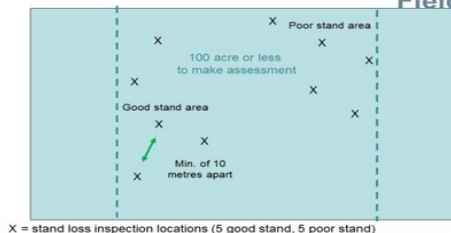
4. The Professional Pest Advisor will calculate and record the percentage of stand loss.
5. If the **crop inspection** threshold has been reached (See “Crop inspection thresholds”), the Professional Pest Advisor will complete the [Inspection of Crop - Pest Assessment Report](#). This report can then be used to purchase neonic-treated corn or soybean seed for that entire farm property that is under one assessment roll number, as long as the planted area includes the plot area that the crop inspection assessment was conducted on. A **pest assessment report** can be used for the purchase of neonic-treated seed as long as the assessment was conducted within the 12-month period prior to the sale or transfer of the seed.

Crop inspection thresholds

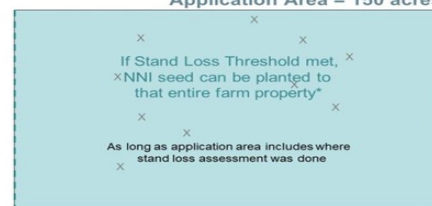
The crop inspection thresholds are:

- 15% for corn stand loss
- 30% for soybean stand loss

Example: 150 Acre Untreated Field



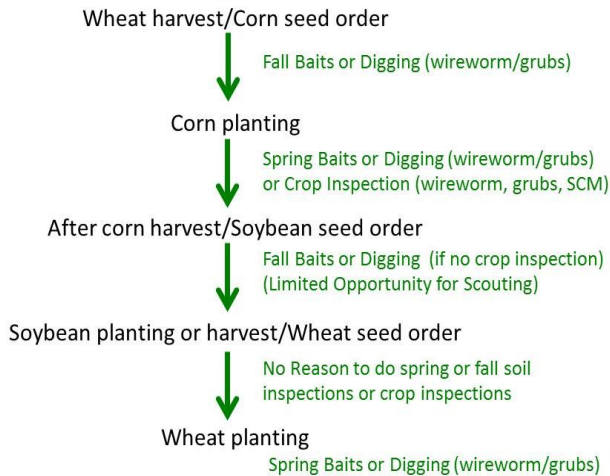
Pest Assessment Method 2 – Application Area = 150 acres



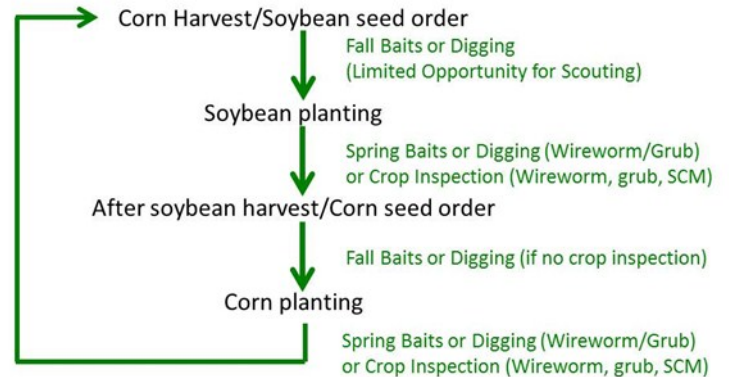
Crop rotations for each farm property

Don't rely on conducting the soil inspections only in the fall, prior to seed order. Fall conditions can change quickly and reduce your ability to successfully conduct the pest assessment. Plan ahead and try to do some of the soil inspections in the spring to also use towards your fall seed order. The following are examples of different crop rotations and how they can affect if and when a soil inspection or crop loss assessment should be done.

Corn/soybean/wheat rotation

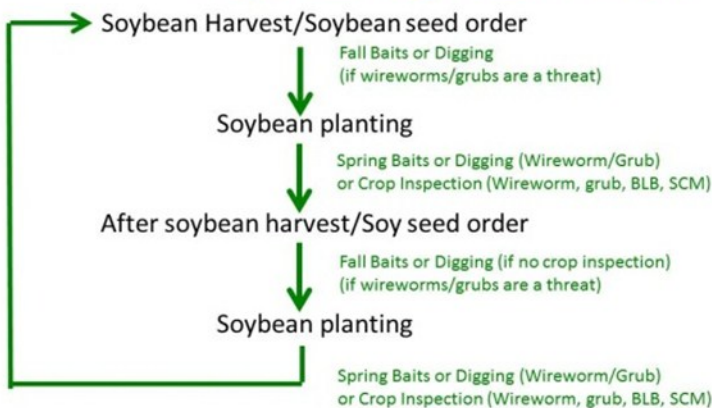


Corn/soybean rotation



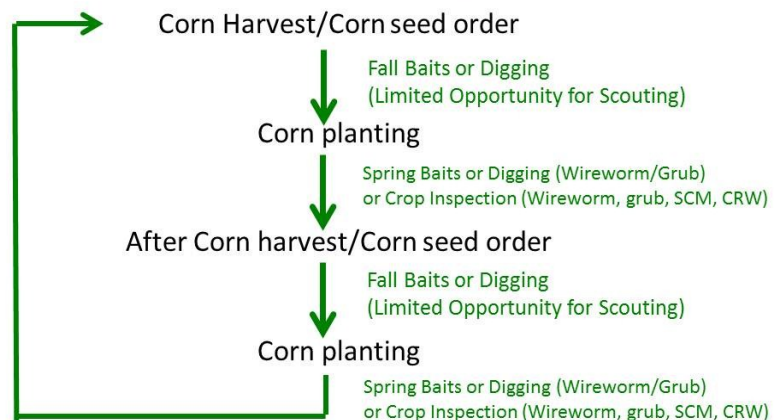
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Soybean/soybean rotation



7

Corn/corn rotation



Schedule of Ontario counties and regions when professional pest advisors are required

Starting August 31, 2017, the phased-in requirement begins for Professional Pest Advisors (PPA) to supervise or conduct the **soil inspection**. Below is the list of counties under each Schedule. In the year that the farm property lands under one of these Schedules, the **soil inspection** assessment must be supervised or conducted by an independent Professional Pest Advisor. For those years that the farm property does **not** land under a Schedule, the **soil inspection** can be conducted by the IPM certified grower.

Schedule 1: 2017 PPA Soil Inspections

For Farm Properties in:
Dufferin
Frontenac
Halton
Lambton
Middlesex
Muskoka
Prince Edward
Stormont, Dundas
and Glengarry
Toronto
Wellington

Schedule 2: 2018 PPA Soil Inspections

For Farm Properties in:
Bruce
Elgin
Grey
Haldimand
Hamilton
Huron
Nipissing
Norfolk
Ottawa
Oxford
Peel
Sudbury
Waterloo

Schedule 3: 2019 PPA Soil Inspections

For Farm Properties in:
Algoma
Brant
Chatham-Kent
Cochrane
Durham
Essex
Haliburton
Hastings
Kawartha Lakes
Kenora
Lanark
Leeds and Grenville
Lennox and Addington
Manitoulin
Niagara
Northumberland
Parry Sound
Perth
Peterborough
Prescott and Russell
Rainy River
Renfrew
Simcoe
Thunder Bay
Timiskaming
York

A **crop inspection** after stand loss must always be completed by a Professional Pest Advisor.

Agricultural Information Contact Centre:

1-877-424-1300

E-mail: ag.info.omafra@ontario.ca

www.ontario.ca/omafra

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OSCIA NEWS

Message from the President - Alan Kruszel



Hello Everyone!

I hope the growing season has been kind to you. Here in Eastern Ontario we've been blessed with decent weather and crops are looking good (for the most part). Some corn silage is already being harvested and there is talk of soybean harvest starting by the third week of September.

OSCIA held its summer meeting in Thames Valley Region hosted by Gord and Laura Green and their family. Directors, Regional Communications Coordinators, spouses and guests enjoyed the wonderful sights and tastes that the region has to offer. A great time was had by all! Many thanks to all the folks who helped put those wonderful few days together. During the Directors meeting, the 2015-2016 budget was approved, received an update on program activities and of course elected the OSCIA President Elect. It is with great pleasure that I announce that Gord Green from Embro was elected by the board to this position. Gord will take over as President, following the AGM in February 2016. Congratulations Gord! Another important part of the board meeting was going through the Strategic Plan and after a thorough discussion, the board approved the plan. Staff are now working on the Operation Plan. Details will be made available shortly.

For those in the Lake Erie, Lake St. Clair, or the Lake Huron southeast shores watersheds we have some good news. A new funding program has just been announced (Farmland Health Incentive Program) to support the Great Lakes Agricultural Stewardship Initiative (GLASI). The cost share associated with this program is up to 75% to a maximum of \$25,000. There are several BMP categories to choose from.

Please visit the following website for further details:
http://www.ontariosoilcrop.org/en/programs_glasi_farmland_health_incentive_program.htm.

On another note, you may notice that this edition of Crop Talk is dedicated to the recent changes to the Pesticides Act as it relates to neonics. There are several items in the regulation that could affect your corn and soybean seed purchases this fall. Take a few minutes to go through the information so you won't have any unpleasant surprises come seed ordering time.

I hope you have been able to participate in a few of your local association activities over the summer. If you haven't it may not be too late, check out the current event listings on our home page to see what's going on!

All the best, and please stay safe during the upcoming harvest season!

Alan Kruszel
akruszel@ontariosoilcrop.org



2015
International
Year of Soils

A NEWSLETTER TO UPDATE
OSCIA MEMBERS, PRESIDENTS, SECRETARIES,
TREASURERS, DIRECTORS,
AND OMAFRA AGRICULTURE DEVELOPMENT
CONTACTS

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- Special thank you to Sylvite for Sponsoring the FREE Breakfast for members at COFS

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“Covered livestock yard improves cattle comfort while reducing environmental footprint” - Lilian Schaer

A new roof over the livestock yard has changed Chad Anderson’s cow-calf farm.

The structure has resulted in better manure management on the 400 acre farm near Brigden, Ontario, reducing both labour and the farm’s environmental footprint. And the cattle are happier too.

Anderson has 120 cow calf pairs and about 30 replacement heifers on his farm, with half of his land in permanent hay and pasture and the rest rotating between spring cereals, wheat and soybeans.

His barn yard was uncovered, leading to manure run-off when it rained. This created a messy, unpleasant environment for his cattle and also meant Anderson had to spend a lot of time trying to manage the sloppy manure in the yard.

It was the *Growing Forward 2 (GF2)* program that offered a solution to his situation. He was able to secure cost-share support under the program’s best management practices (BMPs) for nutrient management for a 35 by 80 foot (10.66 x 24.38 m) roof structure that now covers a large portion of his yard.



It prevents the area from getting wet, makes the manure easier to move and manage, and keeps his cattle dry and comfortable. He also no longer has to worry about run-off.

“Eliminating the yard run-off has really improved our environmental footprint and increased our cow comfort levels,” he says, crediting *GF2* for helping him get the project done.

“The *Growing Forward 2* cost-share was definitely an incentive and pushed me to do something I probably wouldn’t have otherwise,” he adds. “The cost-share is the incentive that gets you started, but after the project is done, you wonder what took you so long.”

He’s no stranger to cost-share programs offered to farmers through the Ontario Soil and Crop Improvement

Association (OSCIA), having previously completed projects involving water, tillage, and livestock mortality management, as well as wetland and grassland bird habitat construction, and biosecurity.

His advice to other farmers contemplating participation in the *GF2* program?

“Read the manual, discuss the project with OSCIA’s super staff, and look hard at multi-year projects which allow for a lot of planning,” he suggests.

Cost share support for livestock nutrient management under the Environment and Climate Change Adaptation area of focus of *GF2* is available for Best Management Practices focused on manure storage improvements, manure composting, land application of manure, and livestock facilities runoff control.

GF2 is a federal-provincial-territorial initiative aimed at encouraging innovation, competitiveness, market development, adaptability, and industry capacity in Canada’s agri-food and agri-products sector.

The Ontario Soil and Crop Improvement Association delivers educational workshops and administers *GF2* funding assistance to farmers.

The next intake for Growing Forward 2 is November 16, 2015 to December 3, 2015. This will be for projects with expected costs before April 1, 2016.

There will also be three new intake dates in year 4, for projects with costs incurred between April 1, 2016 to March 31, 2017:

Year 4	Intake Opens	Intake Closes
Intake 1	February 5, 2016	February 25, 2016
Intake 2	June 17, 2016	July 7, 2016
Intake 3	October 14, 2016	November 3, 2016

More information about *GF2* funding opportunities for farmers is available at http://www.ontariosoilcrop.org/en/programs/growing_forward_2_new.htm or by contacting the Ontario Soil and Crop Improvement Association’s regional program leads at http://www.ontariosoilcrop.org/en/programs/workshop_leaders.htm

Barb Caswell, Program Coordinator, OSCIA
& Lilian Schaer, Freelance



2014 CROP ADVANCES

Premier location for Applied Research on Soil & Crop management information

2014 Crop Advances available on the OSCIA website:
<http://www.ontariosoilcrop.org/cropadvvol11.htm>

Farmland Health Incentive Program is here!

The Farmland Health Incentive Program offers eligible farmers up to 75% cost-share funding up to \$25,000 to implement selected Best Management Practices (BMPs) that improve soil health and water quality.

Complementary to the Farmland Health Check-Up, the Farmland Health Incentive Program offers financial support to farmers who have worked with a participating Certified Crop Advisor (CCA) and completed a free on-farm assessment. "By working through the Farmland Health Check-Up with a CCA, farmers gain an in-depth knowledge of their farm operations and really build a solid understanding of their Farmland Health Challenges, including what BMPs they can implement to better address those challenges—that's where FHIP comes in," explains Andrew Graham, Executive Director of OSCIA.

The BMPs funded through FHIP will help support site-specific, on-farm actions to improve soil health, reduce nutrient loss and reduce the impacts of extreme weather events.

Eligible BMPs include:

- Cover Crops
- Adding Organic Amendments
- Crop Nutrient Plans
- Buffer Strips
- Field Windbreaks/Windstrips
- Tillage and Equipment Modifications
- Erosion Control Structures
- Fragile Land Retirement

Eligible invoices for this program year must be dated after the completion of the Farmland Health Check-Up, and by December 15, 2015.

The Farmland Health Incentive Program (FHIP) offers cost-share funding for farmers located within the Lake Erie and Lake St. Clair watersheds and the Lake Huron southeast shores watershed.

For more information please visit: ontariosoilcrop.org

Jen Hoesen, on behalf of OSCIA



ATTENTION SEED GROWERS OSGA 2015 Annual Meeting December 8th, 2015

~~~~~  
Location: Four Points Sheraton  
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~~~~~  
Register by November 20th

1-519-826-3152

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<http://www.oscia.cloverpad.org/Events>

2015 OSCIA Summer Tour - Oxford County

OSCIA 1st Vice President, Gord Green, and his family hosted the 2015 provincial summer meeting in August. Oxford County and the Thames Valley Region Soil and Crop Associations were pleased to highlight many interesting stops during the three-day event for Provincial Directors, Past Presidents, Regional Communication Coordinators, office staff and friends. During the Directors' meeting, Gord was nominated as the OSCIA President Elect for 2015. Congratulations, and best of luck to Gord.

The summer meeting kicked off Sunday afternoon at Greenholm Farm near Embro, where the group was joined by representatives from OMAFRA, local personalities, and event sponsors. Greenholm Farm showcased their operation that includes a methane digester that generates energy for the electrical grid. After watching a dribble bar manure application demonstration by Husky Farm Equipment and Farm and Food Care, buses toured several excellent projects by the Upper Thames River Conservation Authority in the nearby area. The evening wrapped up with dinner and entertainment including Highland dancers and an infamous OSCIA musician.

Provincial Directors and Regional Communication Coordinators conducted business meetings on Monday, while others spent the day visiting the Ross Butler Art Gallery, toured Salford Farm Equipment, Gunn's Hill Cheese, lunch at the Vanden Bussche Irrigation Demonstration Farm and Nightingale Farms, a very large vegetable operation. Monday night featured dinner and great fun at Leaping Deer Adventure Farm, including a tractor museum and a corn maze.

The final day of the summer meeting saw everyone hop on the bus to head out to Sevita International, specializing in non-GMO soybean production; Everspring Farm, a poultry processing facility that uses a vegetated bio-filter to manage waste water; and then to the Middlesex SCIA research farm to see some fertility projects in corn involving green-bin compost. Final stop of the day was Heeman's Garden Center and Strawberry Farm, very popular for their ever-bearing strawberries, raspberries, bedding plants and garden accessories.

Thanks to Gord and Laura, their family, and to the rest of the planning committee for three very interesting, educational and enjoyable days!

Cathy Dibble, OSCIA Lead RCC



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OSCIA Newsletter

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“Soil Champion’s fields could unlock corn yield potential” - Lilian Schaar



The fascination with Dean Glenney’s soil continues unabated.

The Dunnville, Ontario area farmer first started turning heads in 2010 when he won the Dupont-Pioneer corn yield challenge – and credited an unusual crop growing approach called fence row farming.

For two decades, he has planted every corn or soybean crop in twin rows into the rootball of the previous year’s crop, always in exactly the same location. He always runs his planting and harvesting equipment down the exact same paths too, and he’s getting yields that are double those of other farmers in his area.

Media interviews and speaking engagements began rolling Glenney’s way, along with other accolades like Haldimand County Farmer of the Year and being named the 2015 Ontario Soil and Crop Improvement Association (OSCIA) Soil Champion this past winter.

Since receiving the OSCIA honour, his soil has become the subject of a multi-year, federally funded research project headed up by George Lazarovits, research director at A&L Biologicals in London, Ontario, who is keen to unlock the Glenney field secrets and learn what is behind those large yields.

Lazarovits and Glenney first met in Montreal at a Dupont-Pioneer farm meeting, and Glenney’s description of his fence row farming technique led Lazarovits to believe his yields were the result of not just healthy soil structure, but also the microorganisms within it.

Lazarovits’ work showed it was the microorganisms in the soil that gave the corn its boost, rather than fertilizers or manure, and that by not disturbing those microorganisms through tillage, they were creating an ideal growing environment for the crop.

“George started doing research here on bacterial colonization and because we don’t disturb the soil, bacteria is being colonized specifically to provide the nutrients that corn needs,” Glenney explains, adding that cultivation makes bacterial colonization more random. “There is 20 years’ worth of crop residue in the ground feeding my microbial livestock.”

Glenney’s heavy clay soil is covered by six to 12 inches of sand-loam-clay mix, resulting in near zero natural drainage. The soil is very sticky, he says, and builds up on everything when wet; working it results in serious ponding issues and poor root penetration. And although the organic matter in the soil tests has not increased dramatically – still around three per cent – Glenney says the entire crop residue is gone by the next year.

The new research now involves field trials to identify the bacteria and fungi in the soil that contribute to its health, with A&L partnering with researchers at Western University to complete the three year project.

As part of the work on Glenney’s farm, Lazarovits convinced him to work up a piece of his ground last year and again this year so the research team can study what happens to yields on both the tilled and untilled soil over several years. Glenney has noticed far fewer middens in the worked soil, showing a disruption in earthworm activity.

“When you till the soil, it’s like unlocking a bank account,” says Glenney. “When you first work it, you’re making a withdrawal, and your yields will spike at first. But they’ll decrease over time if you continue to till, just as your bank balance decreases as you continue to take out money. Tillage is a way to mine the soil.”

Lazarovits and his team are regularly visiting the Glenney farm to take samples, look at the root systems of the growing corn plants, and conducting various tests. Ultimately, the goal is to determine what can make a plant produce more while using the same amount of fertilizer; the long term results could lead to microbial fertilizers, for example.

In the meantime, Glenney is also doing his own experiments in an effort to continue boosting his yields, which he says have plateaued somewhat over the last couple of years. He has modified a sprayer to specifically fit his row widths and is applying foliar fungicide to his crops this year for the first time.

Lilian Schaar, Freelance

OSCIA would like to extend a hearty thank you to SYLVITE for sponsoring the FREE breakfast at CANADA'S OUTDOOR FARM SHOW again this year



Workshops and Webinars in your area

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Canada-Ontario Environmental Farm Plan (EFP)

Producers are invited to attend FREE EFP (Fourth Edition) Workshops to:

- Learn about best management practices
- Develop an action plan for their farm
- Learn about cost-share funding opportunities

Biosecurity Workshop

At this one-day workshop, an experienced veterinarian will show you the benefits of having an on-farm biosecurity program, and identify key practices which will enhance biosecurity measures on your farm.

Maximizing Your Traceability Investment Workshop

This in-class workshop will focus on how you can gain a competitive advantage and improve your bottom line with your traceability system. Real life examples and business profiles focused on traceability best practices will be examined throughout the workshop.

Food Safety Webinars

Looking to keep up to date on the latest food safety practices and help strengthen your Growing Forward 2 application? Join us for any or all of the food safety workshops, covering a variety of important food safety topics. All workshops are online as webinars, taken from the comfort of your home or business.

Tentative workshop dates & counties for Heartland and Georgian Central Regions

Most of the workshop locations will be determined closer to the workshop dates and the registered producers will be notified of the location.

Lois Sinclair - Regional Program Lead

519-955-3139 email: lsinclair@ontariosoilcrop.org

GYFP Workshop Schedule

Markdale	Day 1 - Sept. 15	Day 2 - Sept. 22
Wingham	Day 1 - Oct. 14	Day 2 - Oct. 21
Fergus	Day 1 - Oct. 22	Day 2 - Oct. 29
Brodhagen	Day 1 - Nov. 12	Day 2 - Nov. 19
Elmvale	Day 1 - Nov. 23	Day 2 - Nov. 30
Mount Forest	Day 1 - Dec. 2	Day 2 - Dec. 9

EFP Workshop Schedule

Chesley	Day 1 - Sept. 28	Day 2 - Oct. 5
Angus	Day 1 - Oct. 13	Day 2 - Oct. 20
Clinton	Day 1 - Nov. 2	Day 2 - Nov. 10
Markdale	Day 1 - Nov. 13	Day 2 - Nov. 20
Elora	Day 1 - Nov. 17	Day 2 - Nov. 24
Elmwood	Day 1 - Dec. 10	Day 2 - Dec. 17

Food Safety

Markdale	Day 1 - Nov. 18	Day 2 - Nov. 25
Creemore	Day 1 - Feb. 9	Day 2 - Feb. 16

Traceability

Mount Forest	Day 1 - Sept. 24	Day 2 - Oct. 1
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Biosecurity

To Be Announced

Register Online at www.ontariosoilcrop.org



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MANURE DRIBBLE BAR | Bruce Kelly (Farm & Food Care) with Dr. Christine Brown (OMAFRA) and Walter Grose (Husky Farm Equipment) at the OSCIA Summer Tour. Wide, fast, accurate application to a living crop for minimal nutrient losses! If you missed the dribble bar at the Farm Show, contact bruce@farmfoodcare.org / 519-837-1326

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