Heartland Soil & Crop News

March 2017

Dave Brandt visits Heartland Region

CompactionSmart

@ FarmSmart 2017

New Role for Heartland OSCIA Director

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Publications Mail # **40046341**

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Back row, L-R Stuart Wright, 3rd vice-president, Les Nichols, 2nd vice-president, Peter McLaren, 1st vice-president

Front row, L-R Gord Green, past-president, Mack Emiry, president and Andy Graham, executive Director

Stuart Wright, Heartland Provincial Director, joins OSCIA Executive

Life is about to get just a little bit busier for Heartland's provincial director, Stuart Wright, after he was elected to the executive of the OSCIA board at their AGM in February. A 5-year commitment, Wright will serve as the association's president in 2020.

In 2019, as the association's 1st vice-president, Wright will host OSCIA's summer meeting in his home county of Wellington and showcase the rich and diverse agricultural highlights of Heartland Region.

On behalf of the board of directors and members of Heartland Region, we extend a heartfelt congratulations to Stuart on his nomination and wish him all the best as he makes his way towards his presidency!

In This Issue

Join the conversation! @HeartlandSCIA @perthsoilncrop @HuronSoilCrop + more!

From the editor

It's been a busy few months! There has been no shortage of events and activities to attend as of late — Perth SCIA's AGM, FarmSmart and CompactionSmart, the OSCIA AGM, and most recently, Heartland's Spring Meeting featuring Dave Brandt. For this stay-at-home-mom, the busy Heartland SCIA schedule has kept me busy but I've enjoyed the opportunity to get out and talk to other adults and learn a lot along the way.

I've been fortunate to work with a great group of dedicated volunteers in Heartland Region, and this month I'd like to give a big shout-out to the board of Waterloo SCIA who hosted the recent Heartland Spring Meeting on March 10. When we heard that cover crop guru Dave Brandt would be visiting Ontario, we were challenged to pull together an event with short notice and the Waterloo board took on the challenge and more than 100 producers from Heartland Region and beyond benefited from their fabulous hospitality.

Lots of exciting things happening in and around Heartland Region! Enjoy this issue.

Mary

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519-669-5608

Heartland Region President's Message

Well, it's been quite a meeting season so far. From the local county directors' meetings and agm's to CompactionSmart/FarmSmart event days as well as the OSCIA agm, there has definitely been a lot of information and discussion about a wide range of relevant soil and crop and water opportunities for testing and constant improvement. I have to admit that I enjoy the learning opportunities from the other attendees at least as much as the speakers themselves. We certainly do have quite a knowledge base of how to make agriculture work and where it is going within the membership of this organization. One of my personal favourite "take-home messages" from one of these events is from CompactionSmart where Steve Larocque from Three Hills, Alberta, speaks on controlled traffic farming (CTF). He says that you can do all the right things for soil health – no-till, rotations, and cover-crops. However, if we keep driving all over every inch of our soil where 80% of compaction happens in the very first trip over a given spot we squeeze too much air out of the soil. This creates more of chance for anaerobic conditions as well as the processes and pathogens that go with it. He makes a valuable point. I've been on my own quest for controlling traffic on my own farm and I have to admit that it still seems next to impossible but I'll keep working on it. I have to agree with OSCIA soil champion, Dean Glenney, who once stated that there really should be a wheel base standard for farm equipment – there is an isobus standard for field equipment electronics but nothing for wheel tracking in the field. Perhaps if we ask equipment suppliers enough times, we may eventually see CTF systems come together. The point is to just keep asking. There are many more take-home messages from the many meetings and events over the winter season and I'm sure everyone has a different opinion of what may work for them. In that spirit, I would encourage everyone to accept the challenge to try something new or different this coming growing season. It may be seeding more and/or varied cover crops or perhaps new efficient fertilizer placement, the list of possibilities to choose from is endless. Just try your very best and be sure to share the results, whether they're successful or otherwise when we all get a chance to get together at the next round of soil and crop events! Learning comes in many forms. If you have a good idea that you want to try but even if you aren't quite sure of how to proceed, your first thought to come to mind should be how can I as a soil and crop member work with the other members, directors, OMAFRA leads as well as our many sponsoring supporters to make the trying and testing happen. Let's all move crop production forward together.

Best of luck in this upcoming 2017 growing season.

John Poel

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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For more information on membership or anything at all, please contact John Poel at 519 860 7639 or at president@heartlandsoilcrop.org . Comments, ideas and sponsorship welcome!

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Stuart Wright | *Heartland's Provincial Director*

Change is a common theme in all of our lives and our involvement with OSCIA certainly brings that to life. I'd like to touch on that topic both on a personal level and in terms of what is in store for Heartland over the next little while. I made the decision to let my name stand for the position of third vice-president of OSCIA and was grateful for the support of my fellow directors who made me part of the Executive. I admit to being a little nervous and humbled by the opportunity and the challenge but the reason I decided to make the commitment related strongly to all of you who are members in Heartland. This is a grass roots association and in the time I have been Provincial Director it is certainly my belief that the provincial executive and staff have a true understanding of that concept. A real indication of this is the addition of the Association Development Advisor position so ably filled by Brittany Roka. Knowing the time, effort and money that was involved in bringing this to reality cemented my confidence that there is willingness at OSCIA to do all we can to support locals not only here in Heartland but all across Ontario. Please take advantage of the opportunity on March 28 when Brittany and a group of experts are available to help you with any challenges you have. And remember Brittany will be around for at least another year so brainstorm with your local to find new ways the ADA can aid in improving your group. Finally I'd like to give another reason that Heartland inspired me to take the next step. A few years ago when we needed new boards of directors in both Huron and Waterloo I asked a lot of people to make a change and when they did they brought tremendous value to this region and to OSCIA. When you ask you gotta give. So just like you folks it's time to give change a chance.

UPCOMING EVENTS

Friday, March 24: Huron County Spring Meeting, Clinton OMAFRA office, 2:30-5:00 p.m. Featuring Lee Breise. More information or register oscia.wildapricot.org/events or call 519-868-8946.

Tuesday, March 28: Heartland Region Directors' training in Listowel. Open to directors of Perth, Wellington, Waterloo and Huron County. Contact Mary at heartland.scia@gmail.com or 519-669-5608.

Wednesday, March 29: Perth Women In Ag Social, 5:00-9:30 p.m., Stratford Agri-Plex. More information/register at heartlandsoilcrop.org.

For more OSCIA and agricultural events, including Growing Forward 2 Workshops, visit http://www.ontariosoilcrop.org/upcoming-events/

Mimicking mother nature

Cover crops benefit the soil and the bottom line says Dave Brandt

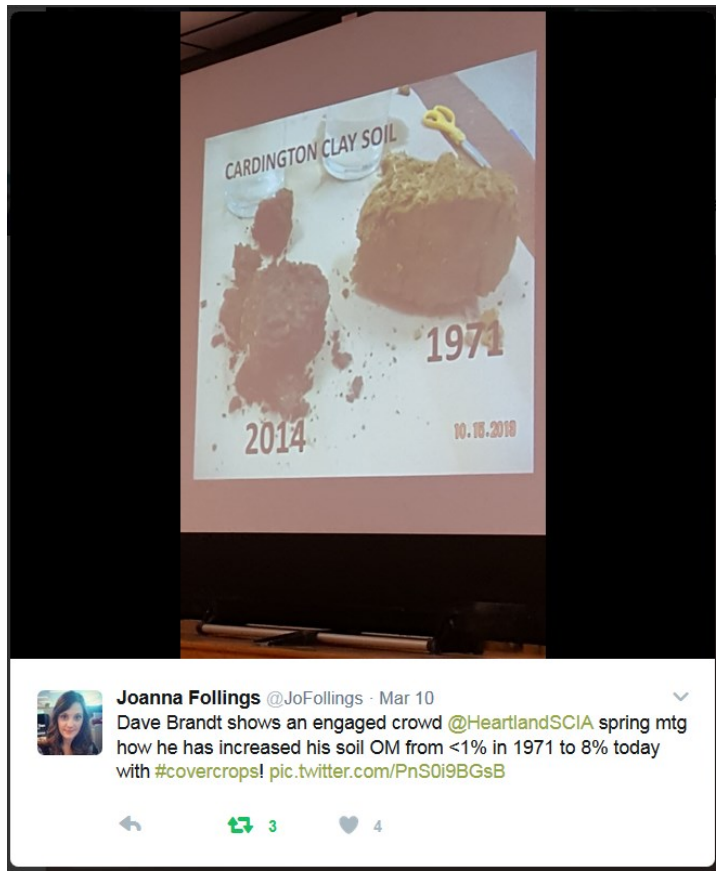
By Mary Feldskov

Dave Brandt is used to getting a lot of attention. A pioneer of no-till and cover cropping since the 1970s, Brandt and his wife Kendra have hosted thousands of visitors to his 1,150 acre farm in central Ohio, eager to learn from one of the foremost experts in the use and application of cover cropping.

The arrival of a couple a State Troopers one summer day was a bit of a head scratcher for Brandt, who was confused about their intense interest in one of his cover crops. He was especially confused – and ultimately, amused -- when they asked him if he "smoked it."

Brandt told this story to a room full of farmers at Heartland Soil & Crop's spring meeting on March 10, drawing laughs from the crowd as he explained that the crop in question was not an illicit substance but rather sun hemp, a tall warm-weather legume that he trialed on his farm despite being warned that it would not grow in Ohio. It not only grew, but thrived, and has become a key component in his cover crop blends.

Experimentation with various cover crops has been one of the basic tenets of Brandt's cover crop strategy. In the 1980s he started by using crimson clover, but over the years has trialed a number of different options including fava beans (which he calls "my disaster"), hairy vetch, Austrian winter peas, sunflowers, Brassica trap, cereal rye, tillage radish among others. He now uses blends with up to 14 varieties. "The goal is to mimic mother nature, like a woodlot," says Brandt. "When you look out to the woodlot you see tall, medium and short species. Have you ever fertilized your woodlot?"



While Brandt works closely with researchers from universities, government and industry, he encourages farmers to figure out for themselves what works best on their farms. "You have to do some trials and figure it out on your own, because universities can't always tell you what they will produce."

Despite some setbacks – he says the fava beans bloomed too early and went to seed – Brandt has seen numerous benefits to his approach to cover cropping, including increased organic matter, better water infiltration, and reduced soil compaction. These environmental benefits have also had a direct positive impact on the farm's bottom line, with increased yields and reduced input costs.

He points to cover crops like hairy vetch and Austrian winter peas that absorb nitrogen out of the atmosphere and translocate it to

(Continued from page 6)

the nodules in the roots. When the soil bacteria breaks down the nodules, the nitrogen is then available to the crop. Other plants, like sunflowers, bring trace minerals like zinc and copper to the surface.

Brandt uses a crop roller to terminate crops, reducing his herbicide use, and says the right mix can reduce or eliminate the need for commercial pesticides as well by encouraging "beneficial" insects like pollinators and keeping the "harmful" insects at bay. Reducing input costs can has had positive effects on Brandt's bottom line, while maintaining or even increasing yields.

With more than 35 years of experience, Brandt concedes that although he's considered the expert, "I taught myself a lot of stuff because I've had a lot of disasters."

The next generation of no-till and cover crop farmers benefit from Brandt's 35+ years of experience. Huron County farmer Mike Strang, who spoke to the group and then later joined Brandt on a Q&A panel, quipped "…really, I steal my ideas from other people like Dave Brandt. I don't think I've ever had an original thought." Brandt is happy to share his experiences and knowledge and experience, with anyone who wants to talk and listen.

(R-L) Rob Luymes, Keith Martin, Mike Strang joined Brandt on a producer panel

OSCIA soil sample discount program extended for 2017

As a benefit of membership, take advantage of a 10% discount on soil sampling at the following laboratories. To obtain a coupon, contact your county secretary or your RCC.

Valid for current OSCIA members only until December 31, 2017

Discount applies to regular priced fees only, on applicable tests and services listed. Not available in conjunction with other discounts or programs, retailers/consultants may offer other discounts. Discount applicable to all samples received on a single submission. No cash value. This coupon must be submitted with samples and grower/field information.

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County updates

Huron SCIA

Waterloo SCIA

Waterloo hosted a very successful Heartland Regional meeting on March 10, featuring Dave Brandt (see p. 6-7), Mike Strang of Huron County, Rob Luymes of Wellington County and Keith Martin from Waterloo.

Plans are currently underway for a summer meeting—stay tuned to the next newsletter and your e-news for more information!

Perth SCIA

Perth County SCIA hosted a sold-out AGM on January 19, featuring guest speaker Shaun Haney from RealAgriculture.com.
Haney's interesting and informative presentation focused on many of the hot topics in agriculture.

The board met in early February and regretfully accepted the resignation of Bill Miller as president and Thelma Smith as secretary-treasurer. Kaye McLagan was elected as president, and a search committee was struck to find Thelma's replacement. Thank you to Bill and Thelma for their long-standing commitment to Perth County SCIA!

Perth's annual Twilight Meeting is scheduled for June 29 — stay tuned for more details!

Wellington

Wellington SCIA wishes to thank the following 2015 corporate sponsors:

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Roots Not Iron

Editors note: This project is a Tier 2 funded project in partnership with Thames Valley SCIA and Heartland SCIA.

A recent resurgence in interest with cover crops has many producers wondering what options work best. The hashtag #RootsNotIron has become a popular Twitter category, with a focus on multi species cover crops and planting the next crop into live green growing cover crops, with cover crop kill following the planting process. The impact on yield and any practical field implications has not been well researched. This project will attempt to evaluate these parameters across a range of cropping practices.

Algal blooms in Lake Erie have focused attention on the impact agricultural practices may have on the environment around us. This has put an even higher emphasis on soil conservation practices including cover crops and reduced tillage. It is beyond the scope of this project to measure the impact these practices have on reducing phosphorus losses: but this project will examine the effect that cover crops and reduced tillage have on soil health and crop yields.

In order to build long-term organic matter and not tie up nitrogen, it is important to have some high nitrogen residue (legumes or green leafy cereal plants) to go along with the high carbon residue that is left behind after corn and wheat harvest. This will help to balance the carbon to nitrogen (C:N) ratio and provide a variety of residue to feed a wide spectrum of soil microbes. The living roots of a cover crop also play a vital role in releasing carbon and other compounds into the soil to help feed the microorganisms in the soil for a longer period of time. The cover crop will increase plant biomass and carbon being returned to the soil, which will increase soil microbial activity. The increase in microbial activity will have numerous benefits on soil health including increased soil organic matter, soil structure and soil tilth.

Methods:

Three wheat, three corn, and four soybean fields (10 total) were selected across the Thames Valley and Heartland Regional Soil and Crop Improvement Association regions during the 2015 growing season. Each field will follow a corn, soybean, wheat rotation for the duration of this project. The three treatments are listed below. Each treatment will be replicated three times.

1. Conventional (No cover crops)

2. Conventional (Clover after wheat, oat + peas if clover fails to establish)

3. RootsNotIron (Continuous cover crop, multi species if possible, strip till or notill)

The RootsNotIron treatment will have a rye mixture inter-seeded into the corn crop which will not be terminated until spring. The rye mixture will be planted at a rate of 46 lbs/ac (40 lbs cereal rye, 4 lbs ryegrass, and 2 lbs crimson clover). Soybeans will be planted following a single spring strip till pass or no-tilled directly into the cover crop. Once the soybeans are harvested wheat will be no-tilled into the soybean stubble. After wheat harvest a multi-species cover crop will the planted in treatment 3. The multi-species cover crop will be planted at 110lbs/ac (30 lbs oats, 30 cereal rye, 20 sunflower, 20 peas, 4 ryegrass, 2 radish, 2 clover, 2 phacelia). The multi-species cover crop will be left till spring when corn will be planted directly into the cover crop or following a single strip till pass.

Tillage will be done on treatments 1 and 2 following the co-operators normal practice but treatment 3 will not receive any tillage for the duration of this project. All other variables (i.e. starter, nitrogen, manure) will be the same for all three treatments following the cooperators normal production practice.

Soil samples were taken from each location to determine baseline soil health levels. At the completion of this project each treatment will be soil sampled to determine the effect each treatment has on soil health.

Results:

The first two years of this study has been completed. During the initial year of this project, no cover treatments had been established prior to the corn being planted so the corn was planted following the co-operators normal practice. Rye was then interseeded into the corn at the 6 leaf stage. The yield results from the three corn sites are shown in table 1. The yield results from a couple farmer conducted trials with the same treatments have also been added to supply some additional results.

Table 1: Corn Yield Results from Inter-Seeded Rye (bu/ac)

Location	Check	Rye Interseeded
Arthur	192.3	193.1
Glencoe	137.1	145.1
Rodney	171.3	171.0
Woodstock	194.5	195.3
Strathroy #1	220.0	218.0
Strathroy #2	220.0	202.0
Average	189.2	187.4

At four of the 6 sites there was no significant difference in yield whether rye was inter-seeded or not. Two locations really stand out in table 1. There was an 8 bu/ac yield increase at the Glencoe site when rye was inter-seeded, while Strathroy #2 lost 18 bu/ac by inter-seeding rye. More research will need to be done to determine what conditions lead to an increase in corn yields at Glencoe, while there was a significant reduction in yield at Strathroy #2.

All three corn sites had good to excellent rye establishment during the 2015 growing season. There was excellent rye growth that occurred at the Arthur location in 2015 and a modified seed drill used to interseed the rye at several locations.

Clover stands were astounding following the 2015 wheat crop. Perfect stands and great growing conditions well into the fall resulted in lots of growth. The multi-species cover crop establishment was also excellent at two of the three wheat locations. Rough, uneven ground conditions resulted in variable seeding depth which combined with inadequate rainfall resulted in a variable stand.

In this second year of this project corn was planted directly into the multi species cover crop. At the Bornholm and Lucan locations the corn was no-tilled into the living cover crop while the other 2 conventional treatments received tillage prior to planting. At Elmira all treatments received a single pass with a strip till unit prior to planting. The yield results from these 3 locations are summarized in table 2.

Table 2: 2016 Corn Yields (bu/ac)

Location	No Cover	Clover	Plant Green
Bornholm	203.1	201.0	185.9
Elmira	218.0	198.8	199.6
Lucan (neonic)	225.8	223.2	202.4
Lucan (Fung)	223.0	224.6	196.9
Average	217.5	211.9	196.2

Substantial yield loss occurred at all three locations with the plant green treatment (Roots Not Iron). Yield loss ranged from 18 to 25 bu/ac. There was little yield difference between the no cover crop treatment and the red clover treatment at Bornholm and Lucan but there was a substantial yield loss with the red clover treatment at Elmira. This yield loss can be explained by looking at the greenness ratings which are summarized in table 3. The greenness ratings were taken on the same day as the corn first emerged using the Canopeo app which was developed by the Soil Physics Research Group at Oklahoma State University. The greenness ratings show that the clover was still green at Elmira when the corn emerged. Image 4 shows visually how much green cover remained in the clover strips at emergence. No Greenness ratings were taken at Lucan.

Soybeans being no-tilled into Cereal Rye

Table 3: Greenness Ratings

Location	No Cover	Clover	Plant Green
Bornholm	0.3%	0.2%	32.0%
Elmira	0.3%	3.9%	0.6%
Lucan (neonic)	N/A	N/A	N/A
Lucan (Fung)	N/A	N/A	N/A

In 2016 the soybeans were also planted into a living cover crop in the Roots Not Iron treatment. At the Rodney location the soybeans were no-tilled into both the rye and check strips while the soybeans were planted following a single pass with a strip till unit at Arthur.

Table 4: Soybean yield Results

Location	Check	Rye
Arthur	61.6	58.9
Rodney	47.5	47.2
Average	54.5	53.1

Summary:

In most cases inter-seeding rye into an existing corn crop had no significant impact on yield but significant yield losses were seen at one location. Major losses were seen however when corn was planted into a green cover crop. This is likely due to the emerging corn plants sensing the presence of other green plants nearby which causes the corn plant to alter its growth pattern. The research showing that plants are able to sense other plants nearby has been well documented by Dr. Clarence Swanton at the University of Guelph. Based on the above data it appears that soybeans may be able to handle the stress of plant green better than corn. Soybeans only suffered a minor yield loss when planted into a green cover crop. More research is needed study the effect that planting green has on a soybean plant.

For the most part cover crop establishment was excellent at most locations in 2016 which should provide excellent results from the 2017 growing season.

Next Steps:

This trial will be continued for at least the next 2 years to complete the corn, soy, wheat rotation at all locations.

Acknowledgements:

Huge thanks to our co-operators. Thanks to summer assistant Alison Buckrell, technician Shane McClure, and administrator Marian Desjardine. Special thanks to Mel Luymes and Cathy Dibble for helping to coordinate sites and data. This project would not be possible without the support and funding of the Ontario Soil and Crop Improvement Association.

Building a Controlled Traffic Farming System


Steve Laroque

Near Three Hills Alberta, a herd of antelope wanders across a crop field. They don't just wander anywhere though, they stay on the tramlines to get from A to B, the packed down field roadways where the farm equipment travels. It seems natural for them to walk there, just like it seems natural to Steve Larocque to drive there to perform his field operations.

In agriculture it's called Controlled Traffic Farming – CTF – and Larocque, an independent crop advisor with his company Beyond Agronomy and now in his tenth year of farming, is a strong supporter of the system. There's lots of talk about the chemical and biological side of soil, he told the audience at both 2017 CompactionSmart and FarmSmart conferences, but what about the physical side? If a soil is packed hard there is no "condo space" for biological activity to occur.

The concept of CTF is to have all machinery travel on the same tracks, all the time. While compaction is inevitable, especially from heavy grain carts during harvest, keeping in the same tracks means that only 14 percent of the field is affected with no till/CTF, as opposed to an 82 percent footprint with conventional tillage and 46 percent for no-till alone (Rainbow & Derpsch). The result is a field effectively separated into two zones, one where he drives and one where the crops grow.

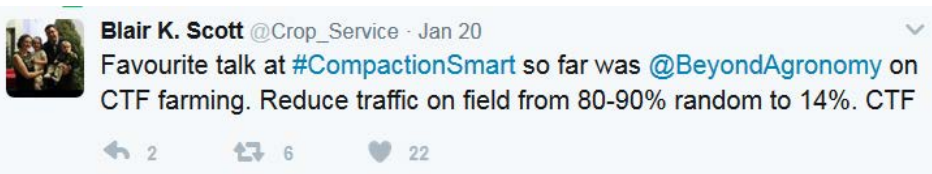
Any machinery over 10 tons per axle is known to cause compaction resulting in reduced water infiltration and availability, reduced earthworm population, an increase in the power needed for tillage or planting and reduced crop yield.

Machinery has become huge, said Larocque. A JD 4940 sprayer weighs 17.8 tons dry, a Case 535 4WD tractor is 21 tons, or a NH 9.90 combine is 19.3 tons empty, straight out of the factory. Carts have now reached up to 1300-bushel capacity. Add an implement and factor in that field operations don't always happen at optimal times and his case for CTF becomes clearer.

Doesn't the freeze/thaw cycle look after compaction? In the top few inches it will, but not once you get five or six inches down. His soil is heavy clay, high in magnesium, really sticky and vulnerable to packing, but even high organic matter soil can pack. The top two inches may seem fluffy but there can be a plated, brick mess underneath even without high traffic.

Laroque adopted CTF seven years ago, and while he says there will be a lag time of a few years until the benefits become apparent, depending on the state of the soil, the two zones will become visibly different. Driving 20 feet off the tramline one time his tractor made a depression seven inches when it had only depressed the tramline one inch. One inch seems normal until you see an area not packed down for comparison.

You'll need a tape measure to get started and RTK capability. Start with the combine header and work back, going to a 30, 35 or 40-foot width. Thirty feet seems to work well, says Larocque. Factor in an even residue spread, comfortably 30 to 40 feet for straw, and fine tune the efficiency from there. A typical system would have a 30 foot seed drill, 90 foot spray boom and 30 foot combine header, or go 70:105:35. A system ratio of 80:120:40 can work too but when you get up to 40 feet the extension arms to load the bins can get a little challenging.



Larocque created an offset hitch to move the drill side-to-side, overcoming the issue of seeding directly over the previous year's residue while moving down permanent tramlines. He'll plant into 16 inches of standing stubble (not for the faint of heart, he admits) and place the seed right beside last year's row, in an area where the soil becomes like 'fence-row' farming: an ideal place where moisture and nutrients are trapped. Doing this he has saved up to $20 per acre on canola seed through an increase in germination.

Having the tramlines makes it easier to navigate a field after a rain, as long as you don't go off them. As far as weeds go, he has found his weed population has been dropping since the seeds stay on the surface in his no-till operation and don't get pressed into the soil to germinate.

But he admits it's not all sunshine and rainbows. Getting set up means measuring every piece of equipment accurately. It has been hard to buy CTF ready equipment but he's seeing more become available. Harvest logistics can be challenging with bigger fields, resulting in the need for temporary headlands. The residue can be difficult to manage after harvest and tramline erosion needs to be address

Overall though, CTF is paying the bills. "It's a system; it takes time," says Larocque. Some soils don't repair as quickly but he predicts a five to seven percent yield increase in the third year.

Soil Structure is Key

The Drudge brothers are passionate about soil health. At their 2,000-acre no-till farm near Wroxeter, their goal is to pass their land along to the next generation in better shape. They're achieving this through a combination of cover crops and going no-till in 1998, but the process actually began by "reducing the compaction between our ears," Roger Drudge told the audience at CompactionSmart 2017.

(Continued on page 12)

Flanked by his brother Jerry, Roger listed their successes so far including increased soil carrying capacity resulting in reduced compaction. Their management practices have made it easier on equipment, requiring less horsepower to propel the implements down the field. They see much less erosion (the runoff water no longer looks like chocolate milk, said Roger) and water infiltration has improved; all while they have been able to maintain and improve yield.

Cover crops and expanded rotations have been major factors in their success. They now use up to 19 different species of cover crops, and thanks to advice from soil specialist Ray Archuleta, their rotation includes canola, winter wheat, peas, dry beans, oats, soybeans, buckwheat and the mainstay, corn.

It's not all gone smoothly though. Roger confessed that waxy-leaved kale is hard to kill as a cover crop, becoming a "big burdock" that smothered the soybeans for a ten-bushel hit. He's planted cereal rye too thick and had buckwheat battles while learning the importance of cover crop termination. He also said that the weeds that emerge through rolled covers are bigger and harder to manage.

But while the soybean yield may only be two bushels more, that's not the whole story. The Drudge brothers take comfort in knowing that they've made a difference to the whole system.

Ontario Forage Masters Competition

The Ontario Forage Masters is a program promoting excellence in the growing, harvesting and storage of forages by acknowledging outstanding producers that employ winning management practices.

The long-awaited debut of the new Forage Masters Competition took place in February at the annual conference of the Ontario Soil and Crop Improvement Association (OSCIA). The previous competition ran successfully for about 30-years, but in recent years was experiencing reduced enrollment and not garnering much attention from new participants. The OSCIA, who is responsible for coordination, chose to close down the competition for 2016 and focused efforts on developing a fresh new approach.

For those who were familiar with the previous competition, the changes introduced with the new product will be immediately detected.

The newly refined program takes a page from the very successful Environmental Farm Plan, with the emphasis on producer education. You will find a pdf document on this page (Self Assessment Package), which contains a great deal of valuable information, divided between 3 modules, followed by 45 questions in total. These 45 questions will be used for scoring purposes to determine the top 11 Regional winners.

Submission deadline is July 15, 2017

For more information, visit http://www.ontariosoilcrop.org/association/association-membership/ontario-forage-masters/

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