

# Soil Life, Cover Crops, and Reduced Tillage: FarmTrek 2013 Inspires Local Farmers

by Danielle Kusner, freelance writer

A brief morning rain shower could not scare away local farmers from participating in another successful annual August field day organized by Agriculture Solutions. The event, FarmTrek 2013, drew a crowd of over 200 eager attendees, willing to take a day away from their fields to dedicate themselves to learning the processes of biological farming.

Dave de Vries, Agriculture Solutions' President, began the meeting by welcoming guests to Philip Bauman's farm, located off of highway 86 in Listowel, Ontario. Dave also introduced several informational tables that were available throughout the day to answer farmer's questions including Agriculture Solutions, SGS Laboratories for soil testing and plant tissue analysis, DeDell seeds for non-GMO seeds, Bruce AgraDehy and Greenspire Global for Safestrike®.

The first speaker, Randall Reeder, an agriculture engineer with The Ohio State Extension, presented a background of challenges to soil quality, carbon and the climate that will continue to affect agriculture in the coming years. Randall described a vision of 21st century agriculture to include the 3 C's: conservation tillage, cover crops and crop rotation. This overview prepped the crowd for the 2nd speaker of the morning, Jim Hoorman.

As a self-described combination of farmer, student, and assistant professor at The Ohio State University, Jim's energy and audience engagement won him praise as the crowd favorite! Jim discussed the importance of practicing minimal till or no-till farming while using cover crops to restore carbon in the soil and build organic matter. He highlighted the example of Dave Brandt, a well-known farmer in Ohio who has been practicing no-till for over 30 years. Brandt's story is helpful for farmers interested in beginning no-till or minimal till because they can learn from Dave that no-till did not work for him until he started combining it with cover crops. Jim Hoorman explained why—a system of no-till with cover crops mimics Mother Nature and accomplishes the goal of not disturbing the soil. Microbe

populations feed on sugars from cover crop roots. In return, the microbes help perform functions such as fixing nitrogen and building organic matter in the soil. Jim likes to say that microbes "are like soluble bags of fertilizer." Over time, a no-till or minimal till cover crop system increases organic matter, which leads to better crop health and yields, while also decreasing fertilizer costs because the microbes will be doing more of the work in the soil.

At the end of the morning, Rafiq Islam, an Ohio State University professor, demonstrated a new tool that he has developed to predict soil organic matter and ecosystem services called the Lucas Spreadsheet Model. While this method requires a computer which some farmers may not use, it was a helpful exercise to prove to farmers that researchers are spending much effort to figure out the best ways for increasing organic matter over time. Another tool, developed by Rafiq was a soil quality field test kit. Each member of the audience received a free kit, which provides a very basic measure of the soil quality on a graduated scale from excellent to poor. Agriculture Solutions advises that, while the kit can provide a baseline value for soil quality, it does not provide a farmer with enough information about the mineral and nutrient makeup of their soil in order to empower the farmer to make decisions for a soil improvement program.

Later in the afternoon, Steve Knauss, president of Greenspire Global, described how SafeStrike® works. This product is an organic blend of oils and plant compounds that strengthens plant immunity against disease and insect pressure. The day rounded out with enjoying bowls of ice-cream supplied by Organic Meadow in Guelph, and hearing some outstanding examples of farmers that are following Agriculture Solutions programs and achieving inspiring results.

Will Feensta highlighted the successes of three farmers who have seen some amazing changes in their soil and plants. Aden Weber, now in his third year of being organic, credits his healthy soil life and root mass for providing enough nutrients to grow 7 foot corn with 2 fully

developed cobs providing over 1400 kernels per plant. In comparison, conventional grower Terry Wideman, has also seen 24 inches of root mass on his corn plants. A third farmer following an Agriculture Solutions' program has witnessed 17 worms per shovelful of soil on his farm this season! These encouraging stories indicate that whether conventional or organic, Agriculture Solutions' recommendations can help farmers increase plant vitality, yields and soil life on their farms. Farmers on the Agriculture Solutions program are building more organic matter year after year, and decreasing their input costs over time.

As the last part of the day's agenda, Feensta invited participants to join him, along with Philip Bauman, for a walk of Philip's fields. Agriculture Solutions' was thrilled that about 60 people joined the field walk to learn the methods of crop scouting and sampling that are performed by Agriculture Solutions' Soil and Plant Health Advisors, and which can be utilized by any farmer to assess crop health on his own farm. Scouting techniques included use of a refractometer for measuring BRUX, a penetrometer for assessing soil compaction, a PH meter, and some good old-fashioned observation with human senses, such as scouting for leaf quality and insects on the plant and smelling the soil.

Some key lessons shared by participants about the day were, "what is below ground is as, if not more, important than what is above ground," and, "From the field walk, I learned that every farmer should have at least a small part of their field where he is experimenting." Many folks appreciated the emphasis on cover cropping and minimal tillage systems. Agriculture Solutions' has received much positive feedback about the field day, and they are proud to provide such a high quality learning opportunity for local farmers. We look forward to seeing you at one of our events soon! To learn more about Agriculture Solutions, visit [www.agriculturesolutions.ca](http://www.agriculturesolutions.ca) or call 1-855-247-6548. †

