



July 2017 Issue:

Soil Visions

Dates to Remember

2017 Soil Health School Sept 5-7 2017 school flyer

HAPPY COW TOUR
Friday, July 28, 2017

- Registration & morning picnic at Holding Farms
- Touring Holding Farms, 9:30-10:30 in the morning
- Touring the Eck Ranch Family Ranch in the afternoon
- Lunch will be served at Holding Farms and (SDF) we return at the Eck Ranch
- Tour Eck Ranch Grazing near creek and crop residues, tiller grazing, multi-species and rotational grazing, overhead grazing and operating with no buying equipment

For more information or to register contact:
 Lyke Peterson at 864-649-7909 or
 amy@petersonfarm.com at 864-324-0127

*Note: Free to all NRCS and SDFCC members

Locations: Holding Farms is at south of Eck Ranch, Missouri, OK. The Eck Ranch is a mile north of Eck Ranch, OK.

The tour is sponsored by SDCC and SDFCC



The Peterson Farm Bros YouTube channel began in November of 2011 with a video featuring our whole family called "Wheat Harvest on a Real Family Farm in Kansas." In May of 2012, Greg had an idea to make a parody music video with his brothers to help educate their city

friends about farming. The video was filmed throughout the month of June and posted at the end of the month. It was entitled "I'm Farming and I Grow It," and was a parody of the song "I'm Sexy and I Know It" by LMFAO. The song was a viral hit on YouTube and received over 5 million views in over 200 countries in 2 weeks. Since then, we have continued to make videos. We have done 9 total parody music videos and many other videos about our lives on the farm.

Healthy Soil Microbes, Healthy

People

The microbial community in the ground is as important as the one in our guts.

[MIKE AMARANTHUS](#) AND [BRUCE ALLYN](#)

JUN 11, 2013

We have been hearing a lot recently about a revolution in the way we think about human health -- how it is inextricably linked to the health of microbes in our gut, mouth, nasal passages, and other "habitats" in and on us. With the release last summer of the results of the five-year National Institutes of Health's Human Microbiome Project, we are told we should think of ourselves as a "superorganism," a residence for microbes with whom we have coevolved, who perform critical functions and provide services to us, and who outnumber our own human cells ten to one. For the first time, thanks to our ability to conduct highly efficient and low cost genetic sequencing, we now have a map of the normal microbial make-up of a healthy human, a collection of bacteria, fungi, one-celled archaea, and viruses. Collectively they weigh about three pounds -- the same as our brain.

To continue reading click this link

<https://www.theatlantic.com/health/archive/2013/06/healthy-soil-microbes-healthy-people/276710/>

Mixing Herbicide and Cover Crops: Look before You Leap

July 18, 2017 [Blog](#)

Anyone who has kept up with us at Merit or Myth knows that there is a growing list of benefits that are associated with cover crops. From reducing [runoff and erosion](#) to increasing organic matter and suppressing [weed emergence](#), it seems more research comes out every year proving the merit of this practice.

As with all tools, however, cover crops are only one piece of the puzzle, not the whole picture. This is because the fields in which we grow our crops are all dynamic ecosystems that are influenced by everything with which they come in contact. Given that we're in the middle of a three-part [series on weeds](#), it's important to understand how the implementation of cover crops effects weed management, specifically when it comes to herbicide usage.



THE INTERSECTION OF HERBICIDES AND COVER CROPS

For better or for worse, the practice of spraying herbicide has conventionally been an accepted reality of farming. It makes sense: in simplest terms, a producer looking to grow plant A is going to encounter some problems when mother nature wants him to grow plants B, C, and D along with it. The quickest way to subdue mother nature? Spray chemicals, ask questions later.

We'll leave the long-term effects of spraying herbicide for another time (if you would like a bit more information on this, check out our own Dr. Buz Kloot's take in his video, "[Weeds: A Chemical or An Ecological Problem?](#)"). The bottom line for now is that, regardless of what it does to the environment in the long-term, when it comes to herbicide, very few of us have a thorough grasp on the subject. Extension agent at the University of Wisconsin Dan Smith has seen this firsthand when it comes to the crossroads of herbicide and cover crops. His advice? Make sure you read the label.

"Most herbicide labels contain information for forage crops," Smith says, "but they don't contain information for cover crops. It's important to dig into that label to make sure you don't have any restrictions on that herbicide, things that would prevent you from legally feeding that to your livestock or selling it to a livestock farm."

Easier said than done, we know. Reading herbicide labels isn't exactly like flipping through your favorite Dr. Seuss book. These labels are routinely long and include terms and chemicals of which not every farmer holds a comprehensive knowledge. However, it's more important than ever for us to understand what these labels have to say.



HERBICIDE: TIMING IS EVERYTHING

While the benefits of cover crops are extensive they don't exactly happen overnight. This reality has led farmers to seek more readily available ways to utilize cover crops in the short-term, such as using them as a forage crop. We must be aware, though, if we're to use cover crops as forage that some herbicides carry significant risk for [animal consumption](#). In this regard, timing is everything. This is why Smith says that a good place to start when it comes to reading herbicide labels is the rotational crop section.

"The rotation data is a legal requirement from the time of herbicide application to the time that we're going to harvest or graze that cover crop that turns into a forage crop," Smith says. "That could be a diet for cover crop establishment, but remember that you can grow a cover crop following any herbicide application as long as you never harvest that cover crop."

Of course, individual herbicide types and brands have extensive variation and herbicide carryover can be effected by a variety of conditions, from organic matter content to soil pH to rainfall and soil type. This is yet more evidence that the greatest teacher when it comes to farming is below our feet. Read your herbicide labels and find out how they affect your soil firsthand. It may be a little more work in the short-term, but once the benefits of cover crops are realized, you'll be thankful that you did.

Join the revolution,
– Barrett

SOURCE: http://www.agrinews.com/news/minnesota_news/look-out-for-herbicide-carryover-in-cover-crop-operations/article_714c2c23-aaad-50ab-98fb-75a3cfec3a79.html

Protect Drought Damaged Crop Fields with Cover Crops

Protect Drought Damaged Crop Fields with Cover Crops

NATURAL RESOURCES CONSERVATION SERVICE, Huron, SD, July 17, 2017– South Dakota agricultural producers in the trenches of a difficult drought may next be facing some issues with soil erosion.

Jason Miller, Natural Resources Conservation Service (NRCS) conservation agronomist serving central South Dakota, said there's still time for producers to get some cover crops to grow in their fields severely damaged by drought. And, he noted that may be hard to do if the ground is too dry.

"Each operation's going to be different of how they handle risk," Miller said. "Some operations are willing to spend the additional money to put seeds in the dry soil on the hope they get moisture. It's surprising how much cover crops produce, even with limited summer moisture."

He said a number of producers in central South Dakota are haying their small grain crops. Many are planning to go back to plant something to provide some ground cover. As they consider that, Miller noted that producers need to be aware of the herbicides they applied earlier in the year on that field. Specific herbicides may not allow for choosing a wide variety of species in a mix of cover crops. Warm-season grasses, like millet or sorghum-sudangrass, might be options to handle some of the herbicide residuals. "Producers need to be careful with residuals because of some of the herbicides designed for wheat," explained Miller.

"Producers considering grazing should check the label because the herbicide residual may not be suitable for grazing," Miller said. "Just be careful with those details." Miller encourages producers to talk with their agronomist or the person who applied the chemical before planting anything into hayed small grains.

Miller said producers can put in a cover crop simply to keep erosion down until the next planting year. "For cover purposes, some people are planting a cover crop seed mixture for protection against wind erosion this fall and winter, or water erosion next spring," he said. Besides drought conditions, some

producers in central South Dakota were also hit with a frost at the end of June. Miller said low areas in some corn fields were damaged which may result in delayed maturity. "We have a number of farmers who have been thrown a curveball in addition to the drought," Miller said.

Miller recommends operators plant the covers anytime now through mid-August. "We have time yet to get rain that will kick start the cover crops." Farmers and ranchers can contact the NRCS for free help as they consider options for use of cover crops for their fields and for controlling erosion now and in the coming year.

Getting No-Till Into the Classroom

By [John Dobberstein](#) posted on July 5, 2017 | Posted in [Soil Health](#), [No-Till 101](#)

It's a modest start, but it looks like there's a push under way to get the message about the benefits of no-till practices and soil health into high school and college classrooms.

I'm told that Western Illinois University (WIU) is in the early stages of developing a "soil health education in-service" program for its ag teachers, and with the encouragement of Baker No-Till Ltd. founder and CEO John Baker, there's also discussion of organizing a course for low-disturbance, no-till agriculture.

Scott Jones of MidWest Grass & Forage in Macomb, Ill., says presentations given this year by NRCS educators Barry Fisher and Candy Thomas before college and high school ag educators in Illinois went over very well. The talks included the well-known no-till slake and rainfall simulation demonstrations and soil permeability test, and a brief overview of the NRCS' emphasis on soil health improvement.

"It was a mind-altering experience, I think," Jones says of the reaction to the talks. "They had no idea what the benefits of no-till are in terms of soil stability and hydrology, and how soil permeability changes with no-tilled soils. It's very evident from these three presentations that there's very little acknowledgement in agricultural instruction in the state of Illinois of what soil health means."

With the help of a \$200,000 grant, NRCS agronomist Mike Kucera and a small group of colleagues have already spent the last several years [designing a soil health curriculum for educators](#), Scott says, and they're in the process of trying to get it implemented at schools in surrounding states.

Scott believes there is little or no educational activity like this at high schools or colleges in the Corn Belt, but it's needed. "Through these presentations it's become evident to me if we're going to take soil health improvement to the next level, along with no-till agriculture, we have to educate kids in high school and colleges today," he says. "The 800-pound gorilla in the room is tillage, and until we address that issue and make soil health job No. 1 for worldwide ag, we will continue down the slippery slope of depleting soils and losing ag productivity."

Scott hopes WIU can, with the proper tweaks, use the Nebraska lesson plans as a base to launch educational programs for ag professors, possibly for the 2018-19 school year, but definitely by the following academic year.

Editors here for a long time have questioned whether concepts of no-till and soil health are ever mentioned in high school or college ag programs. Hopefully this broad-based effort is a sign that these worthy topics will get the attention they deserve.



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