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June 2020 Newsletter

Looking into the Future

6/23-25 Regenerative Farming & Ranching Soil Health

Academy What You Will Learn: Principles of Soil Health & Adaptive Stewardship, Restoring Vibrant Ecosystems Through Adaptive Grazing, Making Grazing Highly Profitable & Desirable, Successful Marketing: Strategies for Enhanced Net Margins, Nutrient Management, Designing Cover Crop Mixes, Farm Economics and Whole Farm Planning

Stoney Creek Farm, Redwood Falls, MN

<https://soilhealthacademy.grazecart.com/sha-redwood-falls-mn-june>

6/24 Small Grains and Cover Crops Virtual Field Day

The Land Stewardship Project is sponsoring a Practical Farmers of Iowa virtual field day on June 24th on Martin Larsen's farm. Larsen is a no-till conventional farmer near Byron, Minn., and raises corn, beans, small grains and cover crops. He will be sharing his knowledge and experience of raising small grains in Southeast Minnesota and the benefits he has seen of including another crop in the rotation. Check back for registration and event details.

<https://landstewardshipproject.org/events/item/1518>

RSVP to Shona Snater, LSP,

SSnater@landstewardshipproject.org

6/25 Virtual Soil Health Field Day

Join Prairie Creek Seeds and the Coalition for a day with several topics and segments of soil health practices on a farm in Minnesota including cover crops, soil health, and forage. More details to follow!

Fridays on the Farm Series July 10, July 24, August 7, August 21, September 4, & September 18

Join us for a fun virtual field day tour of farmers from around the state! They will be held every other Friday this summer and will be interactive to allow you to hear from the farmers and ask questions! A collaboration with NRCS, MOSH, Extension, Renville SWCD, Lincoln SWCD and Redwood SWCD to provide field days while staying healthy, more information coming soon!

7/30-7/31 The Foundation for Regenerative Agriculture

The Soil Health Institute's 5th Annual Meeting will feature virtual presentations by some of the world's most progressive farmers, scientists, educators, conservationists, and agricultural industry leaders engaged in soil health/regenerative agriculture. Another 80 video poster presentations will offer opportunities for interacting with the authors in real time.

<https://soilhealthinstitute.org/annual-meeting-2020/>

9/9 9-2:30 Soil Health Expo

The Rollofson family is holding an educational Soil Health Expo to discuss and demonstrate soil health management tactics being implemented. Learn how to economically integrate no-till, strip-till, and cover crops into your system from experienced farmers. Topics include: Soil fertility, Nutrient management, How to integrate cover crops into reduced till operations, and the True cost of field erosion. A farmer panel will discuss the challenges that local producers face when striving to improve soil health. Lastly, watch some equipment get dirty in the side-by-side equipment demonstrations presented by regional and national manufacturers of cover crop interseeders, strip-till implements, and no-till planters.

There is no cost to attend the event. However, pre-registration is requested to help with meals and planning. Register now for the Soil Health Expo <https://extension.umn.edu/event/soil-health-expo>

9/10-11 Soil Health School

A two day training designed to provide an introduction and effective information on how to get started implementing soil health practices as well as a deeper look into management options and integrating regenerative practices. Classroom and field learning will be provided, hear from Minnesota farmers implementing soil health practices as well as technical experts from the state. Who Should Attend? Farmers, agronomists, technical staff, those interested in learning more. Registration coming soon

9/17 2-5pm SW MN Field Day

Nancy and Jerry Ackermann are partnering with the Heron Lake Watershed District and Minnesota Department of Agriculture to host a field day! Data and testing have been collected over a three-year period to help measure and determine the benefits of using cover crop strip-till management versus conventional tillage. The field day will consist of: Various cover crop seed mix demonstrations by Jerry Ackermann, A demonstration of the rainfall simulator showing runoff and infiltration rates for various management types by Jennifer Hahn, Minnesota Soil Health Coalition, Soil temperature and moisture results from the grant period of using cover crop strip-till management versus a conventional tillage management by Catherine Wegehaupt, Heron Lake Watershed District, and Soil test results from the grant using various managements

Where: Nancy and Jerry Ackermann's 39750 820th Street Lakefield, MN 56150

Moisture Management with Cover Crops

2020 has been a very different year from the last two. Many areas of the state are dry right now with lack of timely rain events. We know cover crops are great at taking up excess moisture in the spring to help us get in the fields earlier, but do they compete with our crops for moisture? It depends...my favorite but most frustrating answer!

Different cover crops have different water needs with some requiring high amounts and others not taking as much. Cereal rye, triticale, radish, and turnips are some high water use covers that are commonly used. Barely, millets, field peas, and cowpeas are some lower water use species that are used as cover crops.

Another item to consider is timing. When are your cover crops growing? Growing covers in the spring is great for warming up your soils, pulling out excess moisture, improving trafficability, along with providing numerous soil benefits. If it is a dry spring with no precipitation in sight, it is recommended to terminate the covers so they don't take up all of the available moisture. Once the covers are terminated, they will release their moisture into the soil and through evaporation. Is there a moisture management benefit to dead cover crops? Absolutely! Covering the soil with residue greatly reduces evaporation and baking of the soil in the sun.

What about interseeded covers? It depends. When are you interseeding your covers? If it is after v4 studies have shown that the covers don't compete for nutrients or moisture because they are so far behind the crops. As the covers start taking hold, the corn canopies and leaves the covers to just hang out and wait for sunlight to come back to effective grow. This won't rob moisture from the crops and additional cover of the soil helps reduce evaporation of moisture.

A farmer that planted soybean green into cereal rye this spring is doing well with moisture. The cereal rye was about 2' tall when planting soybeans and terminated the covers soon after planting. Checking the soil moisture on 6/15/20 showed us that this field is noticeably more damp than the fields that didn't have covers.



Right after planting



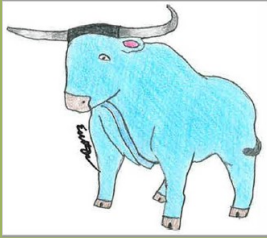
6/15/2020



6/15 non-cover cropped



6/15 cover cropped



Babe's Country

The soil determines the species composition of forests and also directly correlates to the quality and vigor and how it should be managed. Soils are the source of nutrient, moisture, and biological activity availability to forest product roots and can have a wide variety of successfully providing for your vegetation.

What's going on below the forest floor? Forested soils generally have higher levels of fungi than prairie and agricultural soils. This lends itself to vast connections of vegetation below the soil to provide communications, sharing of nutrients, and water. These fungi exponentially increase the area of reach within the soil for vegetation bringing in nutrients and water that are far away and bring them to the plants. A square inch of soil can have miles of fungus root extensions called mycelium. In addition to these fungi capturing water and nutrients out of the vegetation's reach, the fungi also help to transform nutrients into plant available compounds.

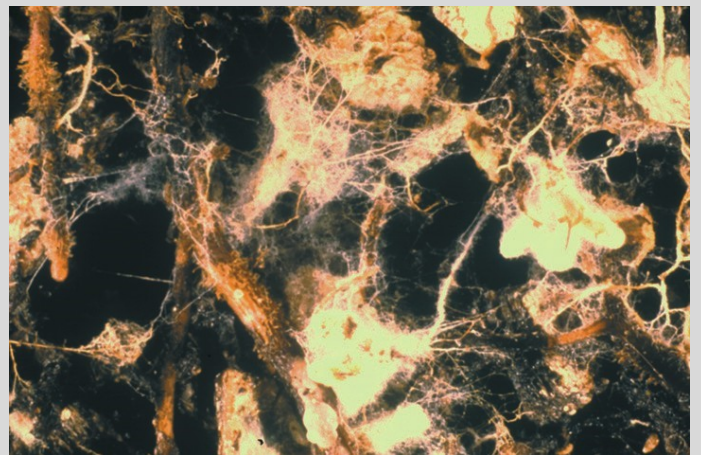
This helps to keep our trees and shrubs healthy making them less susceptible to pests and diseases as well as them creating antibiotic compounds to further protect the vegetation.

Disturbing the soil with equipment, chemicals, and removal of plant litter can reduce fungal growth. If tree planting site prep includes tilling or herbicide application, a good portion of the beneficial native fungi may be destroyed.



Mycelium

Food and Agriculture Organization of the United Nations



Mycorrhizal Structure and Fungal Hyphae

Credit: Randy Molina, Oregon State University, Corvallis. Please contact the Soil and Water Conservation Society at pubs@swcs.org for assistance with copy-righted (credited) images.

Backyard Composting

Do you have a garden in need of nutrients? Would you like to reduce the amount of waste in your trash and local landfills? Do you have unwanted leaf and grass clippings? Consider backyard composting! A finished product can be achieved in as little as a few weeks using hot composting or using a low maintenance approach, compost can be finished in several months to a year. Composting can be done in urban areas as effectively as rural areas. A large compost pile is not necessary, just allow a minimum of 3' x 3' x 3' area for the process. Having two or more bins allows for continual building and using of compost so more than one bin is recommended.

Benefits of backyard composting:

- Reduce hauling of waste (reduction of use of fuel, manpower, and time)
- Reduces volume in landfills
- Keeps vital nutrients on your property
- Bagging these materials for curbside garbage collection is a costly practice in taxes and services
- Yard trimmings and food residuals together constitute 24% of the U.S. municipal solid waste stream
- Suppresses plant diseases and pest (killing them during the heating process)
- Reduced the need for chemical fertilizers
- Improves soil aeration, structure, water holding ability, drainage, increases buffering capacity, and increases the holding and proper release of nutrients for vegetation growth

How to begin composting?

- Obtain a compost bin, barrel, or construct a structure out of wood, fencing, or other appropriate materials
- Begin layering with 4" - 6" layers of finely chopped high carbon materials, high nitrogen materials, and a one inch layer of soil. Continue the pattern until you have reached the minimum height of 3'
- Lightly mix the layers with a garden fork after each layer is added
- Water the layers as they are added until they feel like a wrung-out sponge
- Direct sunlight and heavy rain slows the composting process, covering the top of your pile with straw, dead leaves, or other natural mulch provides protection.
- Water as needed so it isn't dry but not overly saturated
- Mix weekly
- Check temperature to ensure proper process is occurring
- Can produce a finished product in 6 weeks

You can also use the add as you go method

- Start with a base of soil, continue to add grass clippings, vegetable, fruit, and egg shells, leaves, etc.
- Mix weekly and continue to add soil to provide organisms to the system
- Water as needed
- Can produce a finished product in 6 months to 2 years

Contact

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Made possible by the Minnesota NRCS



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