# SOIL HEALTH MINUTE: HAPPENINGS IN SOUTHERN IDAHO

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Hello! We are Courtney Cosdon (University of Idaho Extension/Natural Resources Conservation Service) and Tasha Paul (Idaho NRCS), bringing you Idaho soil health news and information. In this newsletter, we are sharing resources to encourage the use of soil health practices and working to involve more of our community in soil health events and discussions.



**<u>Upcoming Events</u>** 



**Magic Valley Organic Field Day**: Field Day with Tim Cornie, an organic producer and co-owner of 1,000 Springs Mill in Buhl. This field day will feature local organic research and demonstrations from U of I about soil health and intercropping grain and pulses as well as opportunities for cost support, with a field and mill tour. June 13th, 12:30-4 pm. Meet at 1,000 Springs Mill at 12:30 pm. Contact Courtney Cosdon for more info: ccosdon@uidaho.edu

**Oregon State Weed Tour:** Malheur Experiment Station, June 15th. 595 Onion Ave, Ontario, OR 97914. Topics include herbicides for weed control in dry bulb onion and potato, evaluation of adjuvants used with Roundup and more. Registration at 8:00, program from 8:30-12 pm with lunch and pesticide recertification credits available. Contact Joel Felix for more info: joel.felix@oregonstate.edu

University of Idaho Natural Resources Camp: For 12–16 year olds wanting to learn more about our natural environment and how to protect and use it wisely, June 19th-24th.



Looking for soil organisms at Natural Resource Camp

Southeast Idaho Soil Health Field Day: Focused on irrigation, wind erosion, and featuring innovative practices in potato production, this event is hosted by Shoshone-Bannock Agricultural Resource Management, Wada Farms, and Whalen Farms. June 27th from 10-3 pm. RSVP to Tasha Paul (tasha.paul@usda.gov) with name, email, and phone number by June 14th.

<u>Ag Talk Tuesday</u>: Check out the schedule for Ag Talk Tuesdays. These are virtual sessions about agriculture with University of Idaho professionals and peers discussing current crop issues and timely topics. The next session is on June 20th at 11-12 am MST.

### **Resources**

- University of Idaho Soil Heath: https://www.uidaho.edu/extension/soil-health
- Idaho NRCS Soil Health (The NRCS has a new website be sure to bookmark this new link): https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/idaho/idaho-soilhealth
- Soil Health YouTube: Check out the Idaho 5 for 5 Soil Health Roundtable recordings here! https://www.youtube.com/playlist?list=PL6g6ZYcM47s9emP2muvDV4yq\_FNQwoZoJ



#### **Events Con't**

University of Idaho Snake River Weed Tour: Aberdeen R&E Center, June 27th. Guided tour of current research on weed management in potatoes, information on guinoa and fiber hemp, herbicide injury and more. Registration at 8:30, program 9-12 pm with lunch, 3 credits available. Contact Pam Hutchinson for more info: phutch@uidaho.edu

University of Idaho Snake River Weed Tour: Kimberly R&E Center, June 28th. Guided tour of current research on weed management in alfalfa, corn, dry bean, sugar beet and wheat, information on herbicide carryover, interseeding and more. Program from 9-12 pm, lunch provided, 3 credits available. Contact Albert Adjesiwor for more info: aadjesiwor@uidaho.edu

## **Get Involved!**

#### Impromptu Field Days

Impromptu field days are quick, educational field visits to see and discuss a soil health practice that a producer is trying on their land. If you would like to host an impromptu field day and have your neighbors out to your place for a couple hours, call Courtney Cosdon (208) 364-4692.

Innovative Agriculture and Marketing Partnership (I-AMP Idaho) Grant (formerly Climate Smart Commodities Grant)

University of Idaho's College of Agricultural and Life Sciences has secured a \$55 million USDA grant to help farmers adopt climate smart practices on Idaho's major commodity crops

#### including potatoes, barley, beef, chickpeas, hops, sugar beets and wheat. Do you grow any of these crops and are interested in incorporating practices such as cover cropping, reduced tillage, interseeding, or biochar/compost amendments, and would like to reduce your potential financial risk?

#### Here's what you can do to get involved:

1.Make sure you are growing the required crops

2. Determine if you have acreage in these crops that is not already enrolled in a federal assistance program like EQIP or CSP (it is fine if you have other acres enrolled in EQIP, but the acres involved in the grant can't already be enrolled in EQIP or other programs)

YOU CAN SUBSCRIBE TO THE IDAHO SOIL HEALTH EMAIL LIST AND SOIL HEALTH MINUTE NEWSLETTER FOLLOWING THESE STEPS:

1. Copy and paste this address: <u>https://public.govdelivery.com/accounts/USDAFARMERS/subscriber/new?</u> preferences=true#tab

#### 2. Enter email

3. Click "Add subscriptions"

4. Under "subscription topics", scroll down to Idaho, expand and select "ID-State NRCS Soil Health"

# Check It Out

#### Idaho Soil Health Facebook

Join Idaho Soil the Health Facebook, to get connected with other soil health minded folks and keep up to date on happenings conversations. Thanks and to Brad Johnson at The Nature Conservancy for creating this communication opportunity.

#### Idaho Soil Health Storymap

This is а qo-to location for information on general soil health topics and also info very specific to soil health in Idaho. On this page, you can take a virtual tour of soil practices health and research projects happening around the state, and find links to other great resources such as Virtual Field Day videos, soil health assessments, and NRCS assistance programs for implementing soil health practices. This Storymap was created by Shanna **Bernal-Fields** (NRCS Resource Soil Scientist).

Idaho Soil Health Storymap



I-AMP Idaho Grant con't

3.Talk to the funded partners to see if you qualify and sign up. These include: your local conservation district representative, The Nature Conservancy, Nez Perce or Coeur d'Alene representative or Desert Mountain Beef. Signups will begin in the fall.

#### Things to note:

+ Early adopters can and are encouraged to be involved. You can be working with soil health practices already; you just need to choose another practice you are not already receiving financial assistance for. + Smaller and bigger farms are encouraged to sign up

+ Check out the University of Idaho Soil Health website for a FAQ sheet, under the Resources tab

## In the Literature

We all know that building soil organic matter (SOM) is key for improving soil health and overall functionality of soil, such as its ability to store water, cycle nutrients, and resist erosive forces. As influential as SOM is, an overall understanding of its formation and composition is still actively being researched. For over a century, the commonly acknowledged model of SOM formation involved the idea of "humus," a familiar word you've probably come across before in the context of soils. Humus has been described as dark-colored, super stable organic compounds formed after extensive decomposition that were thought to be essentially resistant to any further breakdown by soil microbes. <u>Newer research</u> shows that this traditional model is flawed for a variety of interesting reasons; SOM likely exists as more of a continuum of organic fragments that are continuously being broken down by soil organisms into smaller and smaller fractions. As these pieces of SOM get smaller, they are more likely to adsorb to mineral surfaces and be incorporated into soil aggregates.



So why does any of this matter to us? While a lot of this SOM research might seem like a bunch of naming semantics, the biggest takeaway is that we're learning no SOM is invincible to microbial degradation like was previously believed. Even when highly decomposed SOM is incorporated into soil aggregates for longer term storage, these SOM reserves can still be consumed by microbes if exposed during disturbance or if no other food source/organic inputs are provided for the microbial community. The continuum model of SOM formation fits really well into discussion about soil health principles, which boil down to feeding the soil with organic residues and living plant roots, and protecting the soil from disturbance as much as possible to build and retain the most SOM.

#### Get to Know Idaho Soils!

Take a tour of Idaho's top ten most extensive soil series by area! <u>Top 10 Soil Series of Idaho (arcgis.com)</u>. A soil series is akin to a species of a soil, and each one is distinctly different from the next in one or more of its properties. Idaho has incredible soil diversity, with over 1800 soil series mapped here to date. For additional photos and lab data on Idaho Soils, see <u>Explore Idaho Soils</u>.